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A Primer on Needs Assessment: More Than 40 Years of Research and Practice

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Abstract

This chapter consists of an overview of needs assessment's rich history, definitions, models, tools, and techniques. These closely align its theory, research, and practice to several associated fields—most notably strategic planning and evaluation. The highlights of the content include a comparison to—and differentiation from—evaluation, a brief timeline of the recent history of the field, the notable emergence of hybrid assessment and asset/capacity building approaches, some discussion of opposition to needs assessment, and a description of two prominent models that guide what assessors do. The summary captures the dynamic nature of the enterprise and how it is evolving. © Wiley Periodicals, Inc., and the American Evaluation Association.

Introduction

You may be asking what is a primer and why are the editors starting with one? A primer is simply a book, or in this case a chapter, that is sometimes used to get students started. Primers typically assume little prior knowledge and focus on basic skills. For this *New Directions for Evaluation* issue, we are taking some liberties with this description since most readers will have some understanding of needs assessment. Yet, we believe that clarification and amplification are desirable, since the topic can be complex and is frequently misunderstood or misapplied.

In that light, the chapter explains what a needs assessment is and its relation to evaluation. From there is a brief historical discussion, followed by two prominent approaches to conducting an assessment. In conclusion, we offer a quick glimpse of several applications of basic needs assessment principles. Altogether, we hope that this primer will provide an adequate base from which you can gain the most from the chapters that follow.

Needs Assessment and Evaluation

A need in the simplest sense is a measurable gap between two conditions—what currently is and what should be. (Watkins & Kavale in Chapter 2 of this issue provide additional perspectives on defining needs.) This requires ascertaining what the circumstances are at a point in time, what is to be desired in the future, and a comparison of the two. Needs assessment also includes making judgments with regard to needs and putting them into prioritized order to guide decisions about what to do next.

Defining the gaps between what we want to accomplish and what we are currently achieving, and judging them in relation to one another, makes the endeavor rather complex (Rosen, 1991). The assessment process points to problem areas, issues, or difficulties that should be resolved. In most contexts, needs assessment focuses on gaps in results rather than in wants or possible solutions. Beyond that, tying needs assessments together with the identification of assets can provide valuable insights (see Altschuld, Hung, & Lee, Chapter 7 of this issue) and are best undertaken before beginning a new effort or before a decision about what to do has been made. Needs assessments are often considered a form of strategic or program planning even more than as a type of evaluation (see Wedman, Chapter 4 of this issue).

Usually when needs are assessed, several are found and there are limited resources for improvement (closure of those gaps), so, as mentioned previously, priorities must be set. Causal analysis, for example, may be employed to identify which gap might be most amenable to change and for which a solution strategy has a high likelihood of success (possibly based on evaluation from previous implementations). This is also helpful in thinking about how solutions could be done and when collecting evaluation data would be most useful. By identifying the desired/required state when determining needs, anticipated outcomes to measure later are brought into perspective. Further, it is to be noted that there are types of needs such as short- and long-term, maintenance, severe and slight, and others (Altschuld & Kumar, 2010).

Turning to evaluation, it may be thought of as the provision of information for making decisions about a program or project. Descriptions of evaluation frequently refer to formative and summative evaluation, though other frameworks can be applied (Fitzpatrick, Sanders, & Worthen, 2004). For formative evaluation, questions might be: Is the new entity taking place

as planned, is it performing well? How are the activities proceeding? What deviations are occurring? Are they on schedule? Are they working as intended? What snags are encountered, is the process being monitored, are appropriate data being collected, are in-course corrections being made, are the components of the program working in a complementary fashion, etc.? For summative, or bottom-line, impact, the questions concern: Has the project attained its objectives? Did it work in an equal fashion for all intended groups? Was it worth the expenditure of precious resources (time, personnel, materials, etc.)?

In contrast, needs assessment deals with questions such as What results should be accomplished at the societal, organizational, and individual levels? How do current results relate to desired results? How should we think about diverse needs in terms of importance? Which alternative solution strategies (or sets of solutions) can best reduce gaps in results? What criteria can be used to evaluate the alternatives?

Needs assessment is therefore at times more oriented to planning than evaluation, so you may be asking “Why is an issue of New Directions being devoted to it instead of one more firmly seated in evaluation?” In reality, the two concepts (and associated processes) are highly connected in methods and mission. This was very noticeable to a small national group of needs assessors who decided to affiliate with the American Evaluation Association (AEA) in the mid-1980s. What they observed was that the majority of programs and projects are predicated on quantified needs, perceived needs, or a combination of the two. If needs have been identified, prioritized, and their causes determined with solutions selected, these factors contribute directly to evaluation of the project or program—inevitably linking the two fields of study and practice.

In Table 1.1, evaluation and needs assessment are compared in relation to a number of key dimensions to demonstrate similar and unique properties. The table is intended to be illuminative, not comprehensive.

Other dimensions could be included in Table 1.1, but these hopefully suffice for clarifying why a national group of needs assessors selected AEA as its home. The two fields of study and practice are intertwined processes with a sharp demarcation between them being superficial, or even artificial. Needs assessment takes place early in the development of programs and feeds into the other, which is most common during implementation and operation. The idea of discrepancy readily applies when a program or project is being monitored or evaluated—thus the thinking is in tandem. Indeed, gaps in outcomes could be considered as input into recycling back to the need that guided the program’s design in the first place.

One popular evaluation model (Context, Input, Process, and Product, or CIPP) developed by Stufflebeam in the 1960s (now being revisited by Stufflebeam & Coryn, 2014) embedded needs assessment into evaluation. More specifically, Context includes needs as the platform for new projects and interventions; from there, it moves to the examination of

Table 1.1. Evaluation and Needs Assessment: Some Similar and Unique Properties

<i>Evaluation</i>	<i>Dimension</i>	<i>Needs Assessment</i>
Evaluation occurs after a project or program has begun and often continuously thereafter.	Where does it take place in the life of a project or program?	Assessments occur before (or at the beginning) when an intervention, project, or program is implemented.
Determine how well the intervention is progressing and eventually achieves its intended ends.	Purpose of the activity	Determine important gaps and what ends are the targets, what are likely solution strategies, their key features, and what potentially might be evaluated in terms of anticipated results.
Logic maps, ideally developed during program planning, are used in evaluation as a guidepost for formative and summative evaluations.	Use of logic maps	Strategically define logic maps (or theories of change) to influence program or project design;
Evaluation practice calls for meaningful involvement of constituencies in identifying major outcomes and even in interpretation of obtained data.	Involvement of concerned constituencies	causal analyses may lead to maps of solutions. In the past, assessments were done more by the assessor, but following the lead of evaluation are now more inclusive of the active participation of constituencies (see Chapter 7 of this issue).
Evaluation utilizes a range of methods and views qualitative and quantitative ones as complementary.	Methods and procedures	In practice, they are similar to evaluation regarding a range of qualitative and quantitative methods, but there are several specialized to needs assessment due to the planning focus, including gap analysis, causal analysis, prioritization strategies, and procedures for comparing solution strategies.
Evaluation is incorporated into nearly every public endeavor as a requirement of granting agencies. It is part of the accountability scene.	Frequency of formal employment of the activity	Assessment is not observed as often as evaluation, perhaps because funding is often being linked to predetermined solutions and a desire to move quickly into action.

varied inputs (solutions) to deal with the inherent problems. For Stufflebeam, assessment and evaluation could not be thought of apart from each other.

Other evaluation schema should be brought into the discussion. Empowerment and participatory approaches are strong in terms of the inclusion of involved groups and individuals in deciding what the evaluation is to be about—what variables are most critical to a project, how might they be measured, what should we be looking in terms of success, how would we know that a project is moving along properly, what levels of participation should be there, and so forth? Analogously, these are likewise characteristics of high-quality needs assessments and ones that are more frequently posited in the literature.

Assessments necessitate a careful examination of how to modify or even completely alleviate needs. They elucidate the best ways to do so and direct evaluators toward where to look at how programs operate and the impacts or effects they might have. This usually leads to greater program accountability and more sophisticated evaluations.

Opposition to Needs Assessment and the Emergence of Hybrids

As the concept of needs assessment was emerging in the 1960s and 1970s, sharp criticisms were appearing. One was that many of the then-new models were more heavily top-down, outside-in, and frequently those most affected by the needs came into the process as “subjects” instead of collaborators (or cotravelers) on the journey (Altschuld, 2014). Another concern was that most approaches were too focused on quantifying needs, pushing assessment to rely on indicators from databases or Likert-type scale surveys. Such assessments were not humanistic and did not get to the subtleties of the human condition that could be understood by utilizing qualitative data on perceived or felt needs for identifying deficiencies and opportunities. Because of these limitations, assessments were sometimes viewed as not very useful or a waste of time and money. Often they did not produce outcomes that led to significant, long-lasting change. Eventually, factors like these prompted the strident attack on the very premise of the enterprise.

In 1993, Kretzmann and McKnight noted that not much will come from assessing needs because they are seen as deficits, things that are wrong or amiss, or missing. This is fundamental to their argument (Altschuld, Hung, & Lee, Chapter 7 of this issue). When communities remain focused on deficits, they argued, they can lose direction and may not be empowered. The dependency mindset can constrain a community or organization, keeping it from seeing what is possible with the varied resources it has. In other words, the collective can become devoid of strength in their view. Seeking resources from outside is not necessarily a bad thing, but they assert it can rob the spirit and soul of power. Metaphorically, the argument is that the needs assessment process itself pushed people to see “the glass as half empty,

not half full”. Building from assets and capacities (half full) rather than solely needs (half empty) was viewed as a way to enhance moving ahead. For a time, this perspective led to an increasing number of asset/capacity building efforts rather than needs assessments in some public-sector contexts.

Of course, to continue the metaphor, the glass is both half full and half empty, so it is not that needs assessments at the time were giving an inaccurate view of the situation; rather, they were not giving the full picture. An approach that can strike a balance across both views is therefore potentially most useful. Recently, a hybrid of the two has been emerging, and many of such efforts include a healthy reverence for evaluation being part of them (Altschuld, 2014; Altschuld, Hung, & Lee, Chapter 7 of this issue). A comprehensive framework of needs assessment and asset/capacity building with evaluation integrated into it would be very utilitarian. Most of us today hopefully see these as intertwined processes within a system, not as separate or independent ones. It has taken some years to reach this point, with guidance from work both within the fields of needs assessment and evaluation, as well as from outside (e.g., systems theory, positive psychology, and appreciative inquiry). How has this transformation taken place? What were some of the main events and periods in the evolution of needs assessment to where it is today?

A Timeline for the Development of Needs Assessment

Going back to the very beginning of our existence as human beings we might suspect that need is embedded in our innate fiber. Coming very much forward from the murky start of us as a species, the Egyptian Book of the Dead contains references to what a person would “need” to survive in the afterlife. Of course, that assertion cannot be proved. Leap forward a few thousand years, and Hansen (1991) showed that we continued to attack problems and issues by looking at discrepancies (or needs), even if they were not called by that name. This was observed across fields and contexts. The idea of need for humans is also inherent in the writings of Abraham Maslow. But for this chapter, and the others in this issue, a distinction must be made that “need” refers to those of individuals and groups in organizational, community, and societal settings, not the Maslow connotation that focuses on psychological motivation.

Table 1.2 contains a number of historical events that have shaped understanding of needs and their assessment. Some significant contributors to the history of needs assessment, as well as evaluation, are also included. The table is a broad brushstroke, not a detailed listing of everything that has taken place and all contributors. It depicts, nevertheless, how NA progressed and evolved over time. The timeline starts in the mid-1960s when federal mandates with required needs assessments came onto the scene.

Table 1.2. Overview of Timeline of Modern Needs Assessment

Time Period	Nature of Event(s)	Contributors
<p><i>The early years</i> (mid-1950s to mid-1960s)</p>	<p>Maslow popularizes the concept of need in psychology and the term enters the national discourse on education</p> <p>Elementary and Secondary Education Act (ESEA) of 1965 called for the determination of the needs for programs and projects</p> <p>CIPP evaluation model produced in 1965</p>	<p>Bernard James questions the role of needs in defining educational goals (James, 1956)</p> <p>Congress of the United States</p> <p>Stufflebeam develops early version of CIPP</p>
<p><i>The formative period</i> (mid-1960s through about 1980)</p>	<p>Many needs assessments being done, especially in public schools</p> <p>Major study of those assessments</p> <p>Writings and presentations of some prominent authors</p> <p>Prominent criticisms appear</p>	<p>Tom Gilbert begins the dialogue of needs in terms of training requirements (Gilbert, 1967)</p> <p>Witkin conducts nationwide study of needs assessments conducted in school districts</p> <p>Warheit et al. book is written (Warheit, Bell, & Schwab, 1977)</p> <p>Kaufman begins development of his Organizational Elements Model and publishes several books (see Notes below) on conducting needs assessment (especially with the education sector)</p> <p>Scriven and Roth paper published in <i>New Directions for Program Evaluation</i> (Scriven & Roth, 1978)</p> <p>Kamis' major analysis of the criticisms of NA; Monette's critique of philosophical assumptions (Kamis, 1979)</p> <p>The first (and only) National Needs Assessment Conference was held in Oakland, California.</p> <p>The conference was sponsored by the National Institute of Education and the International Society of Educational Planners</p>

(Continued)

Table 1.2. Continued

<i>Time Period</i>	<i>Nature of Event(s)</i>	<i>Contributors</i>
<i>Coming of age but some headwinds</i> (1980s through the early 1990s)	<p>A heyday of watershed events in NA</p> <p>At least four major books are written and gain wide acceptance</p> <p>Small number of courses devoted to NA are at several universities</p> <p>Small national needs assessment group joins AEA</p> <p>Criticisms reappear toward the latter part of the period</p>	<p>Witkin, Kaufman, Neuber, and Lauffer all produce books on various aspects of the topic (see Notes below)</p> <p>Courses on needs assessment within evaluation programs get started at Southern Illinois, Utah State, and Ohio State; already integrated in instructional curricula in several programs</p> <p>Rossett popularized term in the training field (Rossett, 1987)</p> <p>The models or approaches of Witkin and Kaufman take shape</p>
<i>Productive years but challenges</i> (Early 1990s through the early 2000s)	<p>Rejoinders to the criticisms by Witkin</p> <p>Attack on needs assessment from an asset/capacity building stance</p> <p>Asset/capacity building efforts take off based on wanting to start from a positive not needs-oriented position</p> <p>Major new books on NA are published</p>	<p>Witkin takes on the critics</p> <p>Kretzmann and McKnight harshly note the negatives of assessment (Kretzmann & McKnight, 1993)</p> <p>Altschuld and Witkin write two books and Gupta generates one oriented toward business settings (Altschuld & Witkin, 2000; Gupta, 1999)</p> <p>Kaufman continues to publish several books on needs assessments (especially within private-sector organizations)</p> <p>Scriven and Roth paper reissued by the American Evaluation Association</p>

(Continued)

Table 1.2. Continued

Time Period	Nature of Event(s)	Contributors
<p><i>Building a foundation for things to come</i> (Early 2000s through nearly the end of the decade)</p>	<p>Major paper about the placement of NA in organizations Papers about the Performance Pyramid and the NA and evaluation survey Persistence of NA-TIG group at AEA as a viable entity Emergence of hybrid-like needs assessment and asset/capacity building efforts appear More books about needs assessment</p>	<p>For papers see Altschuld, Wedman, and Watkins, and Watkins and Kaufman, each pushing needs assessment in new directions The five-volume Needs Assessment Kit, edited by Altschuld (see Notes below) Gupta, Sleezer, and Russ-Eft (2014)</p>
<p><i>Coming into fruition and maturity</i> (2010 to the present)</p>	<p>Books continuing to appear, applications in international situations More examples of hybrid assessment are seen in the literature This issue is produced</p>	<p>Gupta, Sleezer, and Russ-Eft; Watkins, West Meiers, and Visser; Kaufman and Guerra; and Altschuld all produce new books on needs assessments</p>

Notes: An animated timeline is available at www.NeedsAssessment.org. The co-authors also suggest that readers consult the following supplemental sources which are in chronological order: James (1956); Gilbert (1967); Stufflebeam (1968); Kaufman (1972); English and Kaufman (1975); Kamis (1979); Warheit et al. (1977); Scriven and Roth (1978); Monette (1979); Kaufman and English (1979); Neuber, Atkins, Jacobson, and Reuteran (1980); Lauffer (1982); Rossett (1987); Kaufman (1992); Kaufman (1998); Gupta (1999); Kaufman (2000); Watkins and Kaufman (2002); Altschuld (2004); Gupta, Sleezer, and Russ-Eft (2007); Altschuld (2010); Watkins, West Meiers, and Visser (2012); and Gupta, Sleezer, and Russ-Eft (2014).

Parsing all the history and exceptional contributions that have shaped the study and practice of needs assessment is beyond the scope of the primer. In our judgment, however, two seminal contributions are most salient to understanding how needs assessment has evolved in recent decades, and those are the models (or approaches) of Belle Ruth Witkin and Roger Kaufman. We should mention that the coeditors have been influenced deeply by, and have been long-term collaborators with, both these thought leaders in the field. Kaufman and Witkin were pioneers, and indeed friends. Through their mentorship both also planted the strong roots that sustained the field as it grew. Witkin died in 1998, while Kaufman continues to be an active contributor (Kaufman & Guerra-Lopez, 2013).

The Approaches of Witkin and Kaufman

In 1984, Witkin published what has come to be seen as the theoretical tome on the topic. In that book she mentioned, although not prominently, a three-phase model of assessment that was in its early stages of development. By the early 1990s, she along with the first coeditor (Altschuld) were ready to push the field forward with a new book and systematized approach to needs assessment (Witkin & Altschuld, 1995). In it, they greatly expanded explanations of the three phases, including the steps and tools within each. Later, the analysis of what might be done in each phase continued to expand (Altschuld & Kumar, 2010; Altschuld & Witkin, 2000). Based on Witkin's original conceptualization, the most recent version of the three-phase approach is provided in Table 1.3.

Concurrent to the advancements being offered by Witkin (and subsequently by Witkin and Altschuld), Kaufman was applying a systems-engineering perspective to the goals of identifying and prioritizing needs. Initially focusing on U.S. educational reform in the 1970s and later on finding applications in both global public and private institutions, applying the systems perspective to needs assessment led to Kaufman's Organization Elements Model (OEM) as a key element of systemic assessment and planning. Not to be confused with a process model (such as the three-phase approach described above), the OEM is a framework with three eternally linked types of needs: gaps in results at the societal level (Mega), organizational level (Macro), and individual/team level (Micro). Discrepancies at each of these levels of the framework then must be aligned with the Processes and Inputs that drive the system (Table 1.4). Kaufman's influential writings on the OEM, and the processes for assessing needs within his framework, largely provided a specialized theory base for needs assessments.

Summary

This primer on needs assessment is intended to provide an overview of the field's rich history, definitions, models, tools, and techniques that closely

Table 1.3. Witkin's Three Phases of Needs Assessment (as Updated in Altschuld & Kumar, 2010)

Phase	Nature	Methods' Overview
Phase 1: Preassessment	<p>The purpose is to do reconnaissance to see what the situation is about. Is there a need or are there needs, and are they of sufficient scope and depth to be pursued further (usually under the aegis of an organization or community Needs Assessment Committee [NAC])?</p> <p>The phase relies on existing information and data before going into the expensive and time-consuming second one. Phase 1 could lead to decisions such as do nothing more because the needs aren't there; go to Phase 2 and do more extensive data collection; or go to Phase 3 (action plans to resolve the needs uncovered).</p>	<p>Data in records Databases Information from the literature Data existing of routinely kept by external agencies Evaluation reports if available Informal or a small set of interviews Observations Other methods as appropriate</p>
Phase 2: Assessment	<p>If Phase 1 did not provide enough understanding about needs and more was required, you enter into Phase 2. In-depth surveying, deeper analyses of existing sources, looking for more information, detailed exploration of the literature, and intensifying the collection of data. This phase may get into such things as the causal analysis of needs (possibly to looking for potential solution strategies) and the prioritization of needs.</p> <p>Decisions are to go no further or that we know enough and have needs-based priorities to plan and initiate solutions (Phase 3).</p>	<p>Formal and specialized surveying Individual and focus group interviews Collecting more literature to illuminate needs and solutions Formal causal analyses Formal prioritization strategies Other procedures as appropriate</p>
Phase 3: Postassessment	<p>Taking what was learned in Phases 1 and 2 and beginning to initiate actions to rectify needs. Phase 3 overlaps with the last part of Phase 2, so, if necessary, some of the activities might be done in more detail. Hopefully, in this phase we might get to implementing action plans and evaluating how well the solutions were working. Lastly, this phase would include strategies for evaluating the needs assessment itself.</p>	<p>Many of the procedures indicated above, especially formal and in-depth causal analyses and prioritization Action plan related activities such as benchmarking, multiattribute utility theory Formative and summative evaluation procedures</p>

Table 1.4. Kaufman's OEM (as Updated in Kaufman & Guerra-Lopez, 2013)

<i>Organizational Element</i>	<i>Examples</i>	<i>Needs Assessment Level</i>	<i>Type of Planning</i>	<i>Kcy Stakeholder</i>
<i>Outcomes: societal results and consequences</i>	Quality of life, health, self-sufficiency, gainfully employed graduates	Mega	Strategic planning	Clients, client's clients, community, society
<i>Outputs: organizational results</i>	Profits, sales, patients discharged, graduates	Macro	Tactical planning	Organization itself
<i>Products: en-route results or building blocks; note there may be multiple levels of products</i>	Competent employees, courses completed, assembled vehicles, medical procedures completed, accomplished/met standards	Micro	Operational Planning	Individual and groups of employees or performers
<i>Processes: interventions, solutions, methods</i>	Teaching, training, learning, manufacturing, selling, managing, marketing	Quasi	Action planning	Individual and groups of employees or performers
<i>Inputs: resources</i>	Funding, employees, equipment, regulations, standards	Quasi	Resource planning	Individual and groups of employees or performers

align its theory, research, and practice. At the same time, we have hopefully illustrated that needs assessment is closely associated with, and works in conjunction with, several other fields—most notably strategic planning and evaluation, sometimes borrowing on the tools and techniques of both to guide practice and at other times deriving theoretical constructs to shape research. As a result, we believe, needs assessment has undergone several transformations over the past half century to become a dynamic field that improves the quality of decisions being made in a wide variety of contexts.

The history of needs assessment is likewise rich on several dimensions, including that it (a) is largely influenced by public- and private-sector applications (see Engle & Altschuld, Chapter 3 of this issue; Wedman, Chapter 4 of this issue; and Lepicki & Boggs, Chapter 5 of this issue); (b) draws extensively on the literature of varied disciplines, including but not limited to evaluation; and (c) has continued to evolve while other related processes became yesterday's fad. Though much smaller in scale than other sister fields (e.g., evaluation), needs assessment has been able to maintain its utility to practitioners while developing its own research-based theoretical foundations and specialized tools. Fueled by exceptionally productive thought leaders, such as Witkin and Kaufman, the field has continued to flourish within varied contexts (evaluation, performance improvement, and organizational development). In its latest stage, the future of needs assessment as it moves to integrate asset/capacity building looks bright.

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