NEEDS ASSESSMENT PROBLEMS AND SOLUTIONS: IDENTIFICATION OF PRACTITIONERS' PROBLEMS AND SCHOLARS' SOLUTIONS

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1986

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
MASTER OF SCIENCE
May, 1999

OKLAHOMA STATE UNIVERSITY

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SOLUTIONS: IDENTIFICATION OF

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ACKNOWLEDGMENTS

I want to sincerely thank my thesis committee, Dr. James Gregson, Dr. Reynaldo Martinez, and Dr. Catherine Sleezer, for their interest, guidance, and support. Their commitment to my efforts helped me to realize a goal that I had long sought. To Dr. Gregson, I am appreciative of his genuine enthusiasm for my work and for his ready guidance; to Dr. Martinez, I am thankful for his incisive commentary and contribution to my growth as a writer; to Dr. Sleezer, my major adviser, I am especially appreciative for her close cooperation and for energizing my work at crucial stages. My committee members' focus on educating me about both the product and the process of this research effort contributed significantly to the learning that I experienced.

I also want to thank the students in OAED 5533, Human Resource Development (Fall 1998), for their participation in analyzing the data from the practitioners' surveys. Dr. William Warde also guided me with his answers to my questions about surveys.

Special and heartfelt appreciation goes to my wife, Diana, for sustaining me during my coursework and this research. I could not have accomplished this goal without her loving support, patience and encouragement. I also thank my parents, Patricia and Robert, for their support.

Finally, I want to thank my co-workers for listening to me talk about my classes and my project during these four years of study.

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CHAPTER I

INTRODUCTION

Background

Organizations are active in pursuing remedies to their human performance problems. For example, expenditures on training continue to climb. According to Training magazine, U.S. organizations with 100 or more employees budgeted $59.8 billion for formal training in 1996, of which $42.2 billion represented salaries paid to internal trainers and administrative support staff in the training department (Industry Report, 1996). These findings were echoed by the American Society for Training and Development (ASTD) in its 1998 "State of the Industry Report". In addition to the continued and growing investment in human resource development (HRD) and training, pressure is building for HRD professionals to demonstrate the financial contributions of their work (Bassi & Van Buren, 1998).

Such data reinforces the need for continued emphasis on needs assessment research and practice. Addressing practitioners' difficulties with needs assessment may loom large due to the sizeable investment in HRD and in light of the potential consequences of ignoring practitioners' issues. The identification of training and non-training needs can have significant implications for the operation and survival of organizations. At a time of training budget cuts and pessimism about future budgets, public sector organizations are also affected (Industry Report, 1996).

Although needs assessment theory has been well documented, its practice continues to evolve (Moseley & Heaney, 1994). For example, organizations may conduct needs assessments infrequently, take the wrong approach, and/or produce incomplete

results (Georgenson & Del Gaizo, 1984; Lampe, 1986; Nelson & Cheney, 1987; Filipczak, 1994; Kaufman, 1994; Nelson, Whitener, & Philcox, 1995). Research that provides guidelines for practice could help strengthen the connection along the research-to-practice continuum. A "disconnect" along this continuum has been variously articulated as occurring between the learning of practitioners and the work of researchers and theorists (Ng, 1988) and between producers, or researchers, and consumers, or practitioners (McLean, 1997). Involving needs assessment scholars could also contribute to the integration of HRD research and practice in pursuit of what Leimbach (1997) called both the "art of application" and the "discipline of scientific rigor".

A broad body of literature encompasses the context and the tools for needs assessment. Numerous articles and books help to build practitioners' frames of reference and offer a palette of definitions, models and tools for conducting needs assessment (e.g. DiLauro, 1979; Newstrom & Lilyquist, 1979; Beaudin & Dowling, 1985; Hiebert & Smallwood, 1987; Benjamin, 1989; McClelland, 1992; Sleezer, 1992; Harris & DeSimone, 1994; Moseley & Heaney, 1994). This array of conceptualizations and tools may prove perplexing to novice and non-expert practitioners. One result is that needs assessment theory may not be reflected in practice. According to Smith, Delahaye, and Gates (1986), one outcome of the myriad data sources and techniques available to practitioners is confusion leading to superficial and poorly designed investigations.

Only a limited amount of recent empirical work on needs assessment practice has appeared (Tannenbaum & Yukl, 1992). Sleezer and Maile's (1997) study of actual needs assessment practices revealed diverse results in terms of the frequency and the quality of practice. In addition, very little integrative work exists that offers research-based

guidelines for practice (Ng, 1988; Leimbach & Baldwin, 1997). Therefore, research and model-building aimed at practical needs assessment could benefit the field.

Problem Statement

HRD professionals confront an assortment of purposes, terms, examples, data sources, and approaches relating to needs assessment. This environment, while offering an abundance of choices, may be too variously defined to effectively guide and bound the practice of non-scholars. Greater insight into the difficulties that HRD practitioners encounter with needs assessment can inform future instruction on needs assessment practice. Greater insight into how scholars address needs assessment issues may help to synthesize the message from the literature and provide new insight to instruct non-scholar practitioners at all levels of experience. Considered together, the practitioners' problems with needs assessment and the scholars' solutions to those problems may inform future theory development and practices.

Purpose of the Study

The purpose of this study was to bridge needs assessment research and practice. This study identified the problems or difficulties that human resource development practitioners faced related to needs assessment. It also identified approaches recommended by scholars toward those issues.

Research Questions

This study addressed the following questions:

1. What problems do HRD practitioners encounter with needs assessment?
2. What strategies do needs assessment scholars recommend for addressing these problems?

Assumptions

The following assumptions were made:

1. The practitioners who described problems with needs assessment had experienced needs assessment issues and accurately articulated those issues.
2. Scholars' experiences differ from those of practitioners and are of interest to practitioners.
3. Refereed articles about needs assessment are useful in identifying scholars who can respond appropriately to practitioners' difficulties.
4. Scholars' responses are truthful, accurate, and represent expert knowledge of needs assessment.

Limitations

This study has specific limitations. The generalizability of the findings is limited to those who participated in the study: the HRD practitioners, members of the American Society for Training and Development in Oklahoma City, Oklahoma, and the needs assessment scholars. As with most studies, the perspectives of the individuals who participated, the data gathered, and the analysis methods employed could influence the research process and the results.

Definitions

The following definitions apply to this research study:

Needs assessment. For the purposes of this study, "needs assessment" refers to a three-phase analysis process at the organization, work or task, and individual levels (Cascio, 1987; Goldstein, 1986; McGehee & Thayer, 1961;

Moore & Dutton, 1978; Smith, DeLahaye, & Gates, 1986; Wexley & Latham, 1981; Zemke & Kramlinger, 1982). It encompasses needs identification, cause determination, and solution prescription (Mager & Pipe, 1984).

Practitioner. For the purposes of this study, "practitioner" refers to human resource development professionals. Specifically, the practitioners surveyed in this study were the members of the American Society for Training and Development in Oklahoma City, Oklahoma.

Scholar. For the purposes of this study, "scholar" refers to authors or co-authors of refereed articles on needs assessment, needs analysis, or performance analysis in core HRD research journals.

Overview of Chapters

Chapter II will examine perceptions and studies of needs assessment practices. It will present the concept of need, approaches taken to defining needs assessment and needs analysis, and frameworks for operationalizing needs assessment on both a conceptual level and a practical level. Chapter III will describe the research methodology used in this study. It will describe the research design, including the study participants, the instruments for data collection, and the procedures for data collection and analysis. Chapter III will also explain the measures used to ensure the trustworthiness of the study's findings. Chapter IV will describe the data collection processes and present the results of data analysis. Chapter V will present a summary of the findings. It will also discuss conclusions, as well as implications for research and for the practice of needs assessment.

CHAPTER II

REVIEW OF THE LITERATURE

A review of the needs assessment literature establishes the context of the study in terms of key concepts and extant research. It also builds a framework for the study. This chapter overviews needs assessment as part of a systematic process for performance improvement.

Overview of Needs Assessment

Needs assessment is part of a systematic process for performance improvement. Training is one intervention to address HRD and human performance problems. A number of models have been developed that describe a systematic approach to training. Although the models differ, five major phases emerge: assessing the needs, designing the training, developing materials and instruction, implementing the training, and evaluating the training (Rosenberg, 1982; Rossett, 1987). Similarly, Swanson (1989) noted that systematic training in business and industry begins not by assuming that the need for training exists, but by questioning the need for improved performance—organizational or individual—and the probability that training will affect that performance.

In her review of perspectives from the literature of performance technology and human resource development, Sleezer (1992) noted similarities in the conceptualizations of needs assessment, needs analysis, performance analysis, and front-end analysis as terms used to describe the process of analyzing training and non-training needs. One similarity is that the process is systematic: it is a process of investigation, problem solving, and decision making. Another similarity is that the process of needs assessment

precedes the implementation of a solution. According to Macher (1984), needs assessment is a process of defining the problem, determining the key causes, and suggesting possible solutions. Oboh (1990) equated the terms needs assessment, needs analysis, front-end analysis, and need determination to a process for determining (1) actual or perceived needs, (2) the training implications of organization problems, (3) relevant content of training, (4) potential trainees, and (5) how problems relate to organizational objectives.

In summary, needs assessment is an early step in a systematic process for improving performance. It identifies training priorities that address the organization's critical issues (Georgenson & Del Gaizo, 1984). The later steps in the performance improvement process therefore depend on the earlier step of assessing the need.

The Concept of Needs Assessment

Fluency with common terms in needs assessment enables practitioners to grasp fundamental concepts, such as distinguishing needs from wants. Fluency also provides a basis for clarifying contexts and expectations, choosing approaches and methods, and constructing a framework for assimilating new research and theory development. However, no single definition or concept of needs assessment exists. This situation has contributed to confusion about the theory and the practice of needs assessment (Cline & Seibert, 1993; Moseley & Heaney, 1994; Sleezer, 1992).

Definitions of Need

No common definition of need emerges from the literature. Its meaning depends on its context. In their cross-discipline profile, Moseley and Heaney (1994) found diverse conceptualizations of need in assessment practices across 12 disciplines in five

areas. In the field of engineering, for example, a need equated to requirements for data collection, processing, storage, and reporting. However, in the field of information sciences, a need represented teachers' requirements for services from school library media centers. While the discrepancy between professionals' perceived and actual knowledge defined a need in the field of education/technology, a measure of consumers' service needs defined a need in the field of human/public services. A need also represented the ability to benefit from health care in the field of medicine/allied health or learners' educational needs in the case of medical education. Sleezer (1992) examined the perspectives of needs assessment in the performance technology and human resource development literatures. She identified a number of definitions of need—including Stufflebean's discrepancy, democratic, diagnostic, and analytic definitions—and found that drives, norms, and means, as well as organizational and individual dimensions, define a need. These examples show that definitions of need vary across disciplines.

A need is often defined as a performance discrepancy. Although discrepancy is not the only basis for defining needs, it is most commonly seen in the literature. A need is a discrepancy (or gap) between a current and a desired or optimum level. When the discrepancy is described in terms of a specific performance, it can be measured (Newstrom & Lilyquist, 1979; Lampe, 1986). Performance discrepancies are defined in many ways. A discrepancy is defined as the gap between trainees' current and optimum competency levels (Bjorkquist & Murphy, 1987; Grace & Straub, 1991); as a knowledge or skill deficiency (DiLauro, 1979); as the learning required to achieve successful performance (Robinson & Robinson, in Rothwell, 1996); and as a desired behavioral change (Bennett & Griswold, 1984).

Discrepancy-based definitions encompass training and non-training needs. Training needs as a category of performance needs is a recurring concept in the literature (DiLauro, 1979; Leach, 1979; Macher, 1984; Bjorkquist & Murphy, 1987; Rossett, 1991; Nelson, Whitener, & Philcox, 1995; Holton, 1995). Beaudin and Dowling (1985) differentiated among job or task, organizational, and individual levels of training needs. Performance discrepancies may also reflect non-training needs. According to Rossett (1990), performance problems may result from flawed incentives, a flawed environment, and lack of motivation. In such cases, non-training interventions could include new policies and contracts, as well as supervisor training; work redesign, improved tools, and a better "match" between individual and job; and better processes. Macher (1984) identified management behavior and employees' loss of interest as possible problem causes. Mager and Pipe (cited in Zemke & Kramlinger, 1982) identified potential responses to various causes of performance discrepancies. In the case of skill deficiencies, changing the job or transferring or terminating the employee were potential responses (in addition to training); for other problem causes, removing punishments, arranging positive consequences for performance, arranging consequences for non-performance, and removing obstacles represented solution alternatives.

The literature also reveals a strategic context to the definition of need. Needs can be anticipated or projected. Dodge (1987) distinguished needs assessments focusing on current needs from those focusing on future needs. Georgenson and Del Gaizo (1984) advocated looking beyond the organization to anticipate training needs. New regulations, intensified competition, and declining resources represented external factors that could shape anticipated needs. Uncontrollable environmental performance discrepancies may

pose less direct targets (Mitchell & Hyde, 1979). Grace and Straub (1991) classified staffing requirements, capital acquisitions, changes in operations, and major strategic shifts within the realm of potential needs. Current or anticipated skills shortfalls—the potential for deficient performance—also defined a need (McClelland, 1992; Nelson & Cheney, 1987; Nelson, Whitener, & Philcox, 1995). Moseley and Heaney (1994) found that needs assessments included current or anticipated future needs in nine of 12 disciplines studied. Mitchell and Hyde (1979) characterized needs assessment as a diagnostic tool for ensuring training relevance with respect not only to short-term performance deficiencies but to employees' long-term career development needs. Similarly, DiLauro (1979) recognized the importance of considering both immediate and longer-range needs.

In summary, no common definition of need emerges from the literature. Its meaning depends on its context. Needs are also defined in terms of performance discrepancies. However, the discrepancy to be measured is also variously defined. Finally, definitions of need encompass training as well as non-training needs in the present and in the future.

Definitions of Needs Assessment

The terms needs assessment and needs analysis frequently appear in the literature to describe the process of analyzing needs. However, as with the concept of need, this process has numerous definitions (Ng, 1988; Moseley & Heaney, 1994; Sleezer, 1992).

Needs assessment and needs analysis have been differentiated. Benjamin (1989) distinguished between needs assessment and needs analysis in terms of eight major characteristics of each. According to Benjamin (1989), a needs assessment is defined in

the literature as a multi-component process for identifying and prioritizing needs. Assessment components are: consideration of goals; procedures for determining current status of goals; a method for identifying, describing, and analyzing discrepancies; and a method for prioritizing discrepancies. Assessment concludes when the most important needs are chosen for resolution. Needs analysis occupied a "subservient role" in the literature. It represented a finer look at the needs previously identified and suggested causes and solutions. In contrast, Holton (1995) distinguished between the assessment and analysis of needs as components of a "seamless role" for HRD practitioners. Proactive leadership in performance and organizational enhancement, he stated, required needs assessment practitioners to move beyond collecting and sorting data to interpreting data and determining solutions.

Kaufman (1994) distinguished between needs assessment--a process for identifying and prioritizing needs-- and needs analysis--a process for determining the causes of a need prior to identifying appropriate interventions. Nelson, Whitener, and Philcox (1995) distinguished assessment--identifying training needs and prioritizing training and development activities--from analysis--describing the trainee population, inventorying job tasks, selecting tasks for training, analyzing tasks, and conducting a learning analysis (writing training objectives, determining requisite knowledge and skills, and confirming appropriate job aids).

The terms needs assessment and needs analysis have been used interchangeably. According to Moseley and Heaney (1994), use of the term "needs analysis" in the literature occurred even when authors described needs identification (not needs analysis). Georgenson and Del Gaizo (1984) used the terms needs analysis and needs assessment

without differentiation, while Lampe (1986) equated the terms needs assessment and front-end analysis. Similarly, Macher (1984) applied both terms to a process of defining the problem, determining the key causes, and suggesting possible solutions. Oboh (1990) equated the terms needs assessment, needs analysis, front-end analysis, and need determination to a process for determining (1) actual or perceived needs, (2) the training implications of organization problems, (3) relevant content of training, (4) potential trainees, and (5) how problems relate to organizational objectives. Sleezer (1992) described front-end analysis and performance analysis as conceptualizations used by some authors to avoid the conflicting meanings of assessment and analysis.

In summary, the process of analyzing needs is defined in different ways. The assessment of needs and the analysis of needs have been differentiated by some authors. Others have used the terms needs assessment and needs analysis interchangeably.

Concepts of the Process

The literature operationalizes needs assessment by offering frameworks at multiple levels. On a conceptual level, needs assessment is described by approaches and models. On a practical or operational level, it is described by guidelines, steps, and methods.

Needs assessment is described on a conceptual level in terms of approaches and models. After comparing "objectivist" and "interpretive" approaches to needs analysis, Hiebert and Smallwood (1987) advocated an "integrated" approach. This approach employed objectivist and interpretive elements, encompassing information-gathering, interpreting the data, and projecting action. Another approach extends beyond identifying needs to attributing causes and prescribing solutions (Holton, 1995).

McClelland (1992) defined a systems approach to training needs assessment as an integrated set of procedures spanning data collection, data analysis, and recommendations. Needs assessment and evaluation are also presented as components in an integrated process (Korth, 1997).

Other approaches to needs assessment emerge from the literature. According to Nelson, Whitener, and Philcox (1995), the content-levels framework represented a more comprehensive approach to needs assessment. The content-levels framework, developed by Ostroff and Ford (1989), combined two perspectives: content (with person, task, and organizational dimensions) and levels (individual, subunit, and organizational). In the resulting nine-cell matrix, the intersection of each content dimension with each level suggests questions or issues to be addressed through needs assessment. Similarly, Bjorkquist and Murphy (1987) discussed the interaction of corporate characteristics, personalities, and the problem leading to the "underlying reasons" for performance shortcomings. Mitchell (1984) distinguished between a specific and a generic approach. Carr (1994) called for a holistic approach that acknowledged that training was not always the answer to performance problems.

Another approach from the literature is the systems approach (Benjamin, 1989; McClelland, 1992; Moore & Dutton, 1978). Because identification and ranking cannot be achieved without simultaneous consideration of causes, solutions, resources and constraints, a systems approach called "situational analysis" was necessary to combine both problem identification and resolution (Benjamin, 1989). McClelland's (1992) systems approach to a training needs assessment encompassed a seven-step sequence. It involved: determining whether to use internal or external resources; defining assessment

goals (reflecting a general or a specific focus); gaining management commitment; choosing the most appropriate methodology (in harmony with the organization's culture and structure); administering and controlling the assessment (appropriate for the chosen methodology); analyzing the results (based on degree of relevance to stated assessment goals); and presenting results and recommendations to upper management. Moore and Dutton (1978) argued that training needs analysis should be interrelated with the other facets of the organization.

In addition to approaches, needs assessment is operationalized on a conceptual level in terms of models for practice. The literature contains multiple models for identifying and analyzing performance needs. Ng (1988) distinguished between educational and non-educational theories and models for needs assessment. The former looked at the partners in the system, such as students, educators, parents, and the community; the latter centered around factors and performance indicators. Sleezer (1992) classified needs assessment models in terms of their starting and ending points. Starting-point categories are models that begin with the identification of the training or performance need, and models that assume this identification has taken place. Ending-point categories include: models that end with the identification of a solution; models that end with a determination of training or learning objectives; models that end with action taken to correct the problem; and models that end with the reporting of intervention results.

On a practical or operational level, needs assessment is described by guidelines, steps, and methods. For example, Cline and Seibert (1993) offered general guidelines for first-time needs assessors such as "plan to use data," "compile the data", and "prepare a

report". In a similarly broad approach, Cureton, Newton, and Tesolowski (1986) offered a list of seven questions, the answers to which guided development of a "managerial needs assessment strategy". Needs assessment is operationalized on a practical level in terms of the tools, methods, or techniques employed (e.g., Beaudin & Dowling, 1985; Cline & Seibert, 1993; Cureton, Newton, & Tesolowski, 1986; Georgenson & Del Gaizo, 1984; Hiebert & Smallwood, 1987; Lampe, 1986; McClelland, 1992; Moore & Dutton, 1978; Moseley & Heaney, 1994; Murk, 1994; Newstrom & Lilyquist, 1979). Rossett (1991) described the potential benefits from using four "techniques" for needs assessment. These techniques included interviews, observations, examination of products, and collaboration. Kaufman (1994) provided guidelines in the form of checklist items for rating the needs assessment process. The guidelines established general parameters for practice. They did not specify how to implement the broad guidance offered.

Needs assessment is also operationalized on a practical level as an outline of individual and sequenced process steps (e.g., Georgenson & Del Gaizo, 1984; Dodge, 1987; Bjorkquist & Murphy, 1987; DiLauro, 1979; McClelland, 1992; Bennett & Griswold, 1984; Cureton, Newton, & Tesolowski, 1986). Process outlines from the literature focused outwardly and inwardly. Outlines with an outward focus described needs assessment steps within the context of a larger process. For example, Bennett and Griswold (1984) visualized needs assessment as the first step in a four-step "training value model" that also encompassed provision of services, measurement of change, and evaluation of cost/effectiveness. Outlines with an inward focus centered upon needs assessment as a process with sub-components. Dodge (1987) magnified the component

elements of the needs assessment process, spanning five steps and culminating in the writing of course objectives.

In summary, the literature operationalizes needs assessment by providing frameworks at multiple levels. On a conceptual level, needs assessment is described by approaches and models. On a practical level, it is described in terms of guidelines, methods, and steps.

The Practice of Needs Assessment

The practice of needs assessment has been a focus of study. However, the focus of recent study has been on the assessment of training needs. The study of needs assessments focusing on non-training needs has been limited. Nevertheless, studies of actual needs assessment practices illuminated both the frequency and the quality of assessment.

Frequency of Assessment

The frequency of needs assessment varied. Nelson and Cheney (1987) reported that most companies apparently fail to reach the needs assessment stage. Rossett (1990) characterized needs assessment as more a goal than a reality, due in part to obstacles that make needs assessment frustrating. These obstacles included flawed needs assessments, lack of organizational support, and inadequate expertise assigned to the effort. Reporting the results of a study by the American Society for Training and Development (ASTD), Nelson, Whitener, and Philcox (1995) stated that organizations conducted a training needs assessment (TNA) less than 50% of the time. Only a limited number of state government agencies engaged in formal training needs assessment. Of 140 agencies surveyed in 30 states, almost 36% used formal TNA in less than 20% of their training

efforts and fewer than half used formal TNA in 40% or more of their training efforts (Gray, Hall, Miller, & Shasky, 1997). While Oboh (1990) found that 73.5% of the organizations surveyed used training needs assessment (TNA), Ellis (1994) determined that 53.6% did not conduct a TNA. Lack of resources, time constraints, lack of information about training needs assessments, and skepticism by management of the effectiveness of training needs assessments were ranked, in that order, as the most important reasons if training needs assessments were not performed. If training needs assessments were performed, they were most often performed as a specific need arose (Ellis, 1994). Similarly, Saari et al. (1988) found that only 27% of U.S. companies conducted a needs assessment to determine the training and development needs of their managers.

Needs assessment was often performed with a short-term focus. Moore and Dutton (1978) found that most training needs analyses were conducted periodically. They characterized the state of practice as a narrow or insular approach. This approach represented a temporary-periodic function of the training department, instead of an ongoing, coordinated and intregrated effort involving the other functions of the organization as a system. Efforts with such a program-oriented, crisis-management basis contrasted with the "carefully developed investigation" proposed by theorists (Moore & Dutton, 1978). Of those who conducted a TNA (Ellis, 1994), the majority of responses (67.6%) to the question of frequency of assessment indicated performance as a specific need arose.

Availability of and attitude toward needs assessment may influence the frequency of assessment. Cureton, Newton, and Tesolowski (1986) acknowledged the lack of

availability of needs assessment as a management tool and managers' often ambivalent attitudes toward it. In addition, it has been found that the training director was more likely to have had formal training in needs assessment in companies (1) that conducted a large amount of training, (2) had trained a large percentage of employees, and (3) had a highly centralized training system (Ford, Major, Seaton, & Felber, 1993).

In summary, studies of actual needs assessment practices showed that the frequency of needs assessment varied. Several studies, focusing on training needs assessment, found that needs assessment was infrequently conducted in some organizations and never conducted in others. When it was performed, needs assessment was often characterized by a short-term focus.

Quality of Assessment

Conclusions from the literature about the quality of needs assessment practices varied. According to Moseley and Heaney (1994), needs assessments were conducted for a variety of purposes, that a variety of tools and techniques were used, and that the tools, techniques, and strategies varied with the scope of the effort, the time available, the budget, and personal preferences. Sleezer and Maile (1997) reached a similar conclusion. Needs assessments were implemented in response to a number of situations, had a variety of foci, and were expected to accomplish multiple purposes. In terms of needs assessment processes, practitioners held diverse perceptions about various aspects of the process; needs assessments frequently combined categories described in the literature; and no assessment focused solely on performance improvement. While practitioners identified positive results and actions/interventions from the needs assessment process,

few practitioners, regardless of their education, knew or used needs assessment models or approaches.

According to Nelson, Whitener, and Philcox (1995), inputs into training are often not systematically identified nor its outputs systematically evaluated. DiLauro (1979) noted an apparent lack of conscious decision-making about the needs assessment process, such as a lack of a defined purpose or objectives for the effort. A further shortcoming of needs assessments was identified as a failure to integrate the assessment data into an organization's overall planning process (Cureton, Newton, & Tesolowski, 1986). Omissions and "misdirected effort" resulted in the absence of an adequate model or conceptualization of the process (Smith, Delahaye, & Gates, 1986). Oboh (1990) determined that the results of needs assessments failed to explain how well those assessments were conducted.

Quality of practice was also described in terms of the scope of participation in the needs assessment process. Participation was found to be limited. Rothwell (1996) determined that technical employees, clerical employees, and supervisors were more often the target of systematic TNA than other job categories (executives, middle managers, professional employees, salespersons, and production employees). This result did not contradict Saari et al. (1988), who found that needs assessments (for determining training and education needs) were conducted primarily for lower levels of management.

Directions related to the study and practice of needs assessment have been articulated. Needs assessment has been characterized as evolving from the experience, reflection, and conceptualization of people across disciplines (Moseley & Heaney, 1994). A study aimed at putting the various methods into perspective for training and

development practitioners was needed and could reduce the existing "confusion" (Oboh, 1990). Ng (1988) concluded that very little integrative work existed that provided research-based guidelines for practice and that the theory and the practice of needs analysis had evidenced little advancement despite a "proliferation" of activities. Lewis and Bjorkquist (1992) suggested that the HRD literature lacked discourse based on expert practice. They indicated that little is known about the actual approaches taken by expert HRD practitioners to solve performance-related problems, including methods used, shortcuts taken, or questions asked.

In summary, conclusions from the literature about the quality of needs assessment practices varied. The quality of indicators such as the purpose and expected results of assessment, tools and techniques used, pre-assessment decision making, scope of participation, and use of assessment results was found to vary. Finally, directions related to the continuing study and practice of needs assessment have been articulated.

Summary

This chapter examined perceptions and studies of needs assessment practices. It also presented the concept of need, approaches taken to defining needs assessment and needs analysis, and frameworks for operationalizing needs assessment on both a conceptual level and a practical level. Chapter III will describe the research methodology used in this study.

CHAPTER III

METHODOLOGY

This study applied qualitative research methods to study the practice of needs assessment. Qualitative methods are useful for exploring nuances, perceptions, viewpoints, meaning, relationships, stories, and dynamic changing perspectives—toward an understanding of a "particular, situated phenomenon" (Swanson, Watkins, & Marsick, 1997). According to Marshall and Rossman (1999), qualitative research is pragmatic, interpretive, and grounded in the "lived experiences" of people. Specifically, this study sought to identify the problems faced by HRD practitioners relating to needs assessment and to survey HRD scholars on their approaches to those problems. The study addressed the following questions:

1. What problems do HRD practitioners encounter with needs assessment?
2. What strategies do needs assessment scholars recommend for addressing these problems?

This chapter describes the research methodology used in this study. It describes the research design, including the study participants, the instruments for data collection, and the procedures for data collection and analysis. This chapter concludes with an explanation of the measures used to ensure the trustworthiness of the study's findings.

Research Design

To answer the research questions, this study had a two-phase design. During the first phase, human resource development practitioners were surveyed to identify the problems they had experienced with the practice of needs assessment. During the second phase, needs assessment scholars were surveyed to identify the approaches they would take toward the practitioners' problems. Designing the study involved specifying the study participants, developing the instruments for data collection, and determining the data collection procedures.

Phase 1: Survey of HRD Practitioners

Phase 1 of the research involved human resource development practitioners responding to a mail survey. It focused upon identifying the problems or difficulties that the practitioners had experienced with the practice of needs assessment.

Phase 1 Participants. For the first phase of the research—the survey of HRD practitioners—the population was the membership of the American Society for Training and Development (ASTD) chapter in Oklahoma City, Oklahoma. The chapter's 1997 membership list was used to identify the practitioner population for this study. This list identified 448 members. It was assumed that the chapter members were practitioners of needs assessment because ASTD represents more than 70,000 professionals in the field of workplace learning and performance. Its members work in businesses of all sizes, government agencies, and colleges and universities. The mission of ASTD is to "provide leadership to individuals, organizations, and society to achieve work-related competence, performance, and fulfillment" (homepage of the American Society for Training and Development, 1999, accessed April 16). In addition, a strategic direction of the

organization is to define the workplace learning and performance industry and shape its future by serving as the leading source of industry data, trends and successful practices.

Phase 1 Instrument. Given the multiple-component nature of the study, the research questions to be answered, the size of the practitioner population, and the geographic dispersion of the scholar population, a mail survey seemed appropriate and economical for both phases—the survey of HRD practitioners and the survey of needs assessment scholars. According to Swanson, Watkins, and Marsick (1997), questionnaires are appropriate for efficiently collecting data from a large, dispersed population. A draft of the practitioners' survey was developed in the spring of 1998 and reviewed by a group of three HRD doctoral students to ensure that the contents would be understood by respondents. A copy of the survey instrument was sent to each reviewer by electronic mail with a message explaining the purpose and format of the survey. Suggestions from the reviewers became additions and revisions to the content and format of the original instrument.

The instrument for the first phase—the survey of HRD practitioners—was a seven-item mail questionnaire. The practitioners' survey was printed on one side of one sheet of 8-inch x 11-inch white paper. Of the seven items on this questionnaire, six were closed-form items. These items were used to gather data where the range and type of response generally could be anticipated; the one open-form item allowed for the gathering of facts, attitudes, or opinions where anticipation of the range and type of response was not possible or desirable (Merriam & Simpson, 1984). The practitioners' survey had two sections. Each section had a section heading. The first section requested information about the practitioner's needs assessment experiences. It contained three

items, including one open-ended question about the practitioner's problems or difficulties with needs assessment. The second section requested demographic information about the practitioner. It contained four items. A cover letter was developed, printed and mailed with each practitioner survey. The cover letter explained the purpose of the study, the value of the recipient's input, and the importance of returning a completed survey. To improve the response rate, the letter was personally signed by the researcher. In addition, the cover letter assured the participant of confidentiality and offered to provide a copy of the findings upon request. See Appendix A for a copy of the final practitioners' survey. See Appendix B for a copy of the cover letter.

Phase 1 Data Collection. The research design called for the practitioners' surveys and cover letters to be mailed to all of the individuals contained on the membership list. The practitioners' surveys were mailed with cover letters and postage-paid return envelopes. Follow-up efforts to ensure a satisfactory response rate to the practitioners' survey included an initial contact letter that was personally signed by the researcher, the assurance of confidentiality in the cover letter, an offer to provide a copy of the findings upon request, and a second mailing of the survey (with a second cover letter). Personalization and the use of follow-up letters have been found to be facilitators of increased response (Yu & Cooper, 1983). The second mailing also included a cover letter and a postage-paid return envelope. However, the second cover letter was less formal in content. (See Appendix C.) To ensure confidentiality and facilitate a targeted and more economical second mailing, a coded list of the chapter member names and addresses was used to identify the surveys outstanding. The postage-paid return

envelopes in the first mailing were numbered from 1 to 448. This numbered list was in the possession of another party for the purpose of preparing the second mailing. The unopened postage-paid envelopes received from the first mailing were checked on the list. The second mailing targeted only those addresses who had not responded. After the second mailing was made, the address list was destroyed.

Phase 1 Data Analysis. The research design required that data analysis in Phase 1 focus on two sets of data: closed- and open-form items from the survey of HRD practitioners. Practitioners' responses to each closed-form item in the first survey were counted and analyzed in terms of the frequency of each response.

According to Merriam and Simpson (1984), although open-form surveys allowed for the gathering of facts, attitudes, or opinions where anticipation of the range and type of response was not possible or desirable, the varied responses to them require greater work in the analysis and identification of categories. The process for developing categories from the responses to the open-form items on the practitioners' survey was the KJ Method (Affinity Diagram). This method involves interpreting and grouping the data using intuition and creativity. Named for its designer, Kawakita Jiro, the KJ Method is designed to clarify unresolved problems by grouping disorganized data—in the form of sentences and everyday expressions—according to their mutual affinity and not on the basis of preconceptions or existing categories (Mizuno, 1988, p. 116).

Using the KJ Method for this study called for grouping the practitioners' responses to the open-form survey item. The practitioners' problems or difficulties with needs assessment—responses to the open-form item on the practitioners' survey—were transferred to index cards. One problem or difficulty was printed on each card. Four-

and five-person teams of students who were enrolled in an HRD graduate-level course sorted and grouped the cards on the basis of their affinity or commonality. This was an in-class project. The students, who had recently learned about HRD research practices, used the KJ Method as a data analysis exercise. The resulting groups of cards were given "header cards" that used words which conveyed the meaning of the index cards in that group. This label is an unambiguous statement that conveys the meaning of the cards in direct—not abstract--terms (Mizuno, 1988). Each labeled group can be considered as a single problem statement. The problem statement categories synthesized from the practitioners' survey using the KJ Method became open-form questions for the scholars' survey.

Phase 2: Survey of Needs Assessment Scholars

Phase 2 of the research involved needs assessment scholars responding to a mail survey. It focused upon identifying the strategies that scholars recommend for addressing the practitioners' problems or difficulties with the practice of needs assessment.

Phase 2 Participants. For the second phase of the research—the survey of needs assessment scholars—the participants were authors and co-authors of refereed articles on needs assessment, needs analysis, or performance analysis in core HRD research journals. These scholars were "elite" individuals who were expected to have recent and expert knowledge about needs assessment. According to Marshall and Rossman (1999), "elite" individuals are those considered to be influential, prominent, and/or well-informed people in an organization or community. Involving scholars offered the opportunity to learn their responses to the specific problems articulated by practitioners and to provide a connection along the research-to-application, theory-to-practice continuum. The scholars

could be expected to place their work in the context of the research. Their practice of needs assessment could be expected to have been more informed than that of non-scholars, owing to their scholarship. Scholars could also be expected to better communicate the results of their work than non-scholars due to their successful navigation of the process of writing for refereed journals. As "elite" individuals, the needs assessment scholars were expected to have expertise in an area relevant to the research (Marshall & Rossman, 1999).

Each scholar involved in this study was identified based on authorship or co-authorship of at least one article about or involving needs assessment, needs analysis, or performance analysis in a core HRD research journal during a five-year period (1993-1997). Sleezer, Sleezer, and Pace (1996) identified the core professional journals, which published refereed HRD research-related articles. Table I lists the journals and the number of HRD research-related articles published by each from 1990-1994 (according to Sleezer, Sleezer, & Pace, 1996). These nine core journals were chosen as the basis for identifying HRD scholars.

Table I

Core HRD Research Journals and HRD Research-Related Articles 1990-1994

Journal Title	Number of Articles 1990-1994
Human Resource Development Quarterly	23
Public Personnel Management	15
Performance Improvement Quarterly	14
Journal of Organizational Behavior	12
Personnel Psychology	12
Journal of Applied Psychology	10
Journal of Management	10
Management Education and Development	10
Public Administration Quarterly	10

Phase 2 Instrument. The research design required that the instrument for the second phase—the survey of needs assessment scholars—be developed following the completion of the first survey. The responses to the open-form item on the practitioners' survey in Phase 1 were synthesized using the KJ Method and became the basis for the scholars' survey. See Appendix D for a copy of the scholars' survey.

Phase 2 Data Collection. The research design called for the scholars' surveys and cover letters to be mailed to authors and co-authors of refereed articles on needs assessment, needs analysis, or performance analysis in core HRD research journals. Twenty-two scholars were initially contacted by letter. (See Appendix E.) The scholars' survey contained nine open-form questions based on the problem statement categories synthesized from the practitioners' responses collected in Phase 1 of the study. This survey represented an elite interview. According to Marshall and Rossman (1999), such

an interview focuses on a particular type of interviewee and has unique advantages and disadvantages. Among its advantages, the elite interview allows for the gathering of valuable information from the interviewees due to the positions they hold as influential, prominent, and/or well-informed people in an organization or community. Among its disadvantages, the elite interview often involves difficulty in gaining access to the interviewees.

A cover letter accompanied the scholars' survey both by mail and by electronic mail. (See Appendix F and Appendix G.) A second mailing of the scholars' survey was made to those scholars who had not responded to the initial request.

Phase 2 Data Analysis. Analysis of the second survey—the survey of needs assessment scholars—focused on each scholar's complete response to each problem statement as the item for analysis. As an analysis tool, content analysis is appropriate for its general applicability to varied forms of verbal materials (Kerlinger, 1986). It also allows for a focus on either quantitative or qualitative aspects of a message and is cost-effective (Berg, 1989). Two methods for synthesizing the scholars' data were used. Reflective thinking allowed the researcher to control the conditions for thought; a two-axis matrix (Swanson, Watkins, & Marsick, 1997) facilitated recognition of the emergent realities inherent in the set of scholars' responses to each of the nine statements of practitioners' problems or difficulties with needs assessment. Analysis of the scholars' responses yielded a set of scholars' solutions to the practitioners' problems or difficulties with needs assessment in practice.

Twelve tactics proposed by Miles and Huberman (1994) for generating meaning among qualitative data were identified in Swanson, Watkins, and Marsick (1997). The following four tactics were used to generate meaning from the scholars' data:

- noting patterns—recognizing repeated themes or causal explanations that lead to theoretical constructs
- clustering—separating large ideas from the data into alternative conceptual groupings
- seeing plausibility—finding common-sense explanations of data (not intellectual explanations)
- making metaphors—synthesizing the data into words that characterize the meaning

Trustworthiness

According to Lincoln and Guba (1985), the trustworthiness of an inquiry and its findings is established in terms of four criteria: credibility, transferability, dependability and confirmability. The fundamental issue, they stated, was how the inquirer could persuade the audience (including the inquirer) of the merits of the findings.

The credibility of the study's findings is strengthened through the application of two techniques: triangulation and member checking. Triangulation can be accomplished through the use of multiple sources of data. Multiple sources of data include multiple copies of a type of source (e.g., the multiple respondents to the practitioners' survey and to the scholars' survey). A formal member-checking process can also be used to strengthen the credibility of the study's findings. The formal sorting and grouping exercise represented by the KJ Method serves as this member-checking process. It

allows the insights of one group—the HRD practitioners—to be tested with another—the sorting team. It also provides an opportunity to summarize, the initial step toward data analysis (Lincoln & Guba, 1985).

According to Lincoln and Guba (1985), the inquirer cannot specify the external validity of the inquiry, but can provide a data base from which potential "appliers" can make judgments about transferability. To facilitate transferability relative to trustworthiness, data reporting includes the raw (unsynthesized) data collected from the practitioners' and scholars' surveys, as well as the synthesized data from the surveys. The dependability of the study is strengthened by the inquiry audit technique. For this study, the thesis advisory committee had the role of the inquiry auditor to examine both the process and the product of the study. The auditor/committee examines the process to determine its acceptability and examines the product (data, findings, interpretations, and recommendations) to verify that it is supported by data and that it is internally coherent (Lincoln & Guba, 1985).

Confirmability, the fourth criterion for trustworthiness, is established by creating an audit trail. This trail includes information in all six of the audit trail categories listed in Lincoln and Guba (1985):

- raw data—the survey results;
- data reduction and analysis products—the synthesized results of the KJ Method and the analysis of the scholars' responses;
- data reconstruction and synthesis products—the findings, conclusions, and final report (thesis);
- process notes—explanations of the study's methodology;

- materials relating to intentions and dispositions—the "inquiry proposal" as represented by the initial mini-proposal and the completed application to the Institutional Review Board, as well as the stated problem statement, the purpose of the study, the research questions, and the anticipated limitations and assumptions; and
- instrument development information—the explanation of the instrument development process and the sample survey forms.

Summary

This chapter described the research methodology used in this study. It described the research design, including the study participants, the instruments for data collection, and the procedures for data collection and analysis. This chapter concluded with an explanation of the measures used to ensure the trustworthiness of the study's findings. Chapter IV will describe the study's findings.

CHAPTER IV

ANALYSIS OF FINDINGS

To identify the problems faced by human resource development (HRD) practitioners relating to needs assessment and to survey needs assessment scholars on their approaches to those problems, this study addressed the following questions:

1. What problems do HRD practitioners encounter with needs assessment?
2. What strategies do needs assessment scholars recommend for addressing these problems?

To answer the research questions, this study used a two-phase design. During the first phase, human resource development practitioners were surveyed to identify the problems they have experienced with the practice of needs assessment. During the second phase, needs assessment scholars were surveyed to identify the approaches they would take toward the practitioners' problems. The findings for both phases are presented in the following sections.

Findings from Phase 1

Phase 1 Data Collection

For the first phase of the research design—the survey of HRD practitioners—the population was the membership of the American Society for Training and Development (ASTD) chapter in Oklahoma City, Oklahoma. The chapter's 1997 membership list was used to obtain the practitioner population for this study. This list identified 448 chapter members.

The 448 practitioners' surveys were mailed with cover letters and postage-paid

return envelopes in July 1998. Approximately 2-3 weeks after the first mailing, the second mailing was made to those practitioners who had not responded to the original request (excluding surveys returned unopened by the Postal Service due to address changes). By late September 1998, 196 individuals had returned the survey. Twenty-four of these surveys were removed from data analysis because the respondents indicated they were retired, were no longer in the field, had changed positions, or had never conducted a needs assessment. This yielded a total of 172 responses for data analysis. In addition, 35 surveys were returned unopened by the Postal Service. The effective population size was therefore reduced from 448 to 389 (subtracting the 24 inapplicable responses and 35 unopened surveys). The final response rate was 44.2%. This compares with the average response rates for mail surveys overall of 47.3% and for questionnaires of 1-10 items of 41.0% determined by Yu and Cooper (1983).

Phase 1 Data Analysis

Experience with Needs Assessment. Of the 172 returned surveys acceptable for data analysis, 125 of the respondents (72.6%) indicated that they had conducted a needs assessment (formal or informal) during the past year. Forty-seven respondents indicated that they had not. Respondents who indicated that they had not conducted a needs assessment during the past year had the opportunity on the survey to indicate how long ago they had conducted a needs assessment. Not all of the 47 respondents provided this information. The most recent needs assessments conducted by respondents who had not conducted one during the past year ranged from "never" to six years previously.

HRD Roles. Respondents were also asked to identify their HRD role at the time they conducted their most recent needs assessment. The survey included the following

three categories: Instructor, Manager, and Consultant. Space was also provided for respondents to specify other classifications as appropriate. The largest percentage of respondents (37.8%) indicated that they were Managers when they conducted their most recent needs assessment. The other classifications provided on the survey received an almost identical percentage of responses. Forty-three of the respondents (25%) indicated that they had occupied the role of Instructor when they conducted their most recent needs assessment. Forty-two (24.4%) indicated that they were Consultants. Twenty-six of the respondents (15%) indicated that their HRD role classification was not among the options provided and wrote in a specific classification. Twenty-three additional role classifications were indicated. See Table II for the role classifications and their frequency (number of responses). Some respondents indicated multiple roles. Others did not answer this item. The responses reveal that 87.2% of the HRD practitioners who are members of ASTD and who responded to the survey occupied the role of manager, instructor, or consultant. The responses also reveal that the practitioners worked in organizations other than business and industry.

Table II

Practitioner Role Classifications

Practitioner Role	Number of Responses	Percentage of Total (n=172)
Managers	65	37.8
Instructor	43	25.0
Consultant	42	24.4
Training Coordinator	4	2.3
Assistant	1	0.58
Assistant Superintendent of Schools	1	0.58
Coordinator	1	0.58
Curriculum Development	1	0.58
Development	1	0.58
Director of Assessment	1	0.58
Director of Human Resources	1	0.58
Division Manager	1	0.58
Employee	1	0.58
Facilitator	1	0.58
HeadStart Program Manager	1	0.58
Instructional Designer	1	0.58
Intern (graduate student)	1	0.58
Needs Analyst	1	0.58
President	1	0.58
Program Planner	1	0.58
Specialist	1	0.58
Specialist (HR)	1	0.58
Trainer	1	0.58
Training Specialist	1	0.58
Training Director	1	0.58
Training Leader	1	0.58

Background in HRD. HRD workshops, seminars, and courses provided almost half of the respondents (47.6%) with their background in human resource development. (Of respondents with 1-5 years' experience in the HRD field, 59.6% indicated that their HRD background included workshops, seminars, and courses.) Other sources of respondents' HRD preparation included graduate-level HRD courses (23.3%), undergraduate-level HRD courses (16.3%), and a degree in HRD (15%). Just over one in ten respondents (10.5%) indicated that they had no background in human resource development. Fifty-seven of the respondents (33.1%) indicated a source for their HRD background other than the five classifications provided on the survey by writing in a specific source. Respondents' sources for preparation in human resource development are many and varied. Among the respondents who wrote-in a specific source, 28% indicated that experience provided them with their background in HRD. (Of this percentage, 37.5% were practitioners with more than 20 years in the HRD field.) See Table III for the sources given and their frequency.

Table III

Practitioner Sources of HRD Preparation: Other Sources

Source of HRD Preparation	Number of Responses	Percentage of Write-In Responses (n=57)
Experience	16	28.0
ASTD trainer/developer Certification	2	3.5
Bachelor of Arts degree	1	1.8
Bachelor's degree in business administration	1	1.8
Bachelor's and Master's degrees in education	1	1.8
Bachelor's degree in education and Master's degree in instructional design	1	1.8
Certificate in HRD	1	1.8
Certification	1	1.8
Certified trainer	1	1.8
Degree in adult education	1	1.8
Degree in education	1	1.8
Degrees and experience in training and development	1	1.8
Developed curriculum for Department	1	1.8
Graduate degree in social work	1	1.8
Graduate degree in Communication	1	1.8
Management experience	1	1.8
Master's degree in vocational and adult education	1	1.8
Master's degree in adult education, training and development	1	1.8
Master's degree in human Relations	1	1.8
Master's degree in HR	1	1.8
Master of Science degree in education and bio-chemistry	1	1.8
Master's degree in education	4	7.0
MBA and PhD in education	1	1.8
MHR degree	2	3.5

MHR HRD track	1	1.8
On-the-job training	2	3.5
PhD in educational psychology	1	1.8
PhD in instructional psychology and technology	1	1.8
PHR certification	1	1.8
PS	1	1.8
Psychology	1	1.8
Self-study and job experience	1	1.8
SPHR	1	1.8
Training and HRD certification	1	1.8
Training	1	1.8
College certificate course	1	1.8

See Table IV for a profile of respondents' professional background as a percentage of the surveys from each experience level (in the HRD field). The six categories of experience levels represented convenient categories. Nine (9) of the 172 surveys did not identify the respondent's experience level. Some respondents indicated multiple sources for professional background.

Table IV

Practitioner Professional Background by Experience Level in HRD

Professional Background	Percentage of Responses per Experience Level
Degree in HRD	16.7% (less than one year) 17% (1-5 years) 12.5% (6-10 years) 25.9% (11-15 years) 6% (16-20 years) 19% (more than 20 years)
Graduate HRD courses	33.3% (less than one year) 23.4% (1-5 years) 28.1% (6-10 years) 14.8% (11-15 years) 23.3% (16-20 years) 33.3% (more than 20 years)
Undergraduate HRD courses	0% (less than one year) 17% (1-5 years) 21.9% (6-10 years) 22.2% (11-15 years) 13.3% (16-20 years) 14% (more than 20 years)
HRD workshops/seminars/ Courses	0% (less than one year) 59.6% (1-5 years) 53.1% (6-10 years) 26% (11-15 years) 70% (16-20 years) 47.6% (more than 20 years)
No background in HRD	16.7% (less than one year) 6.4% (1-5 years) 3.13% (6-10 years) 11.1% (11-15 years) 0% (16-20 years) 14.3% (more than 20 years)

Other	33.3% (less than one year) 21.3% (1-5 years) 25% (6-10 years) 33.3% (11-15 years) 40% (16-20 years) 42.9% (more than 20 years)

less than one year: n = 6
1-5 years: n = 47
6-10 years: n = 32
11-15 years: n = 27
16-20 years: n = 30
more than 20 years: n = 21

Experience in the HRD Field. More than one-fourth of respondents (26.2%) indicated that they had been working in the HRD field for a period of 1-5 years. A smaller percentage (18.6%) had worked 6-10 years in the field. Only four-percent (4%) of the respondents had worked for less than one year in the field of human resource development. The remaining experience levels indicated and the percentage of respondents which indicated each level are as follows: 11-15 years (15.1%); 16-20 years (17.4%); and more than 20 years (12.2%). Some respondents did not answer this item.

Sources for Professional Development. Professional organization meetings and conferences, as well as training programs, workshops, and seminars, were the two primary sources for continuing or ongoing professional development. Almost seventy-percent of respondents (68.6%) identified training programs, workshops, and seminars as a primary source for continuing or ongoing professional development. Almost sixty-percent (59.3%) of respondents indicated professional organization meetings and conferences as a primary source. The remaining sources indicated and the percentage of respondents which indicated each level are as follows: popular journals and magazines

(28.5%); books (26.2%); refereed journals (21%); and college coursework (15.1%). Twelve of the respondents (7%) indicated a primary source for their continuing or ongoing professional development other than the six classifications provided on the survey by writing in a specific source. (Two respondents identified the internet as a source for continuing or ongoing professional development. Both respondents had 16-20 years of experience in the HRD field.) Some respondents indicated multiple sources. Others did not answer this item. See Table V for the sources given and their frequency.

Table V

Practitioner Primary Sources for Professional Development: Other Sources

Primary Source	Number of Responses	Percentage of Write-In Responses (n=12)
Internet	2	16.7
Networking	1	8.3
Personal networking with targeted consultants	1	8.3
Networking with other training specialists	1	8.3
ASTD	1	8.3
Reading and research on my own	1	8.3
HR certification	1	8.3
Career progression	1	8.3
Certification programs	1	8.3
Government service agency	1	8.3
On-the-job training	1	8.3

See Table VI for a profile of respondents' professional development sources as a percentage of the surveys from each experience level (in the HRD field). Nine (9) of the

172 surveys did not identify the respondent's experience level. Some respondents indicated multiple sources for professional development.

Table VI

Practitioner Primary Sources for Professional Development by Experience Level in HRD

Primary Source	Percentage of Responses per Experience Level
College coursework	33.3% (less than one year) 23.4% (1-5 years) 18.8% (6-10 years) 0% (11-15 years) 13.3% (16-20 years) 9.5% (more than 20 years)
Refereed journals	0% (less than one year) 10.6% (1-5 years) 21.9% (6-10 years) 18.5% (11-15 years) 33.3% (16-20 years) 33.3% (more than 20 years)
Popular journals/magazines	16.7% (less than one year) 21.3% (1-5 years) 21.9% (6-10 years) 37% (11-15 years) 33.3% (16-20 years) 42.9% (more than 20 years)
Book	16.7% (less than one year) 19.1% (1-5 years) 21.9% (6-10 years) 29.6% (11-15 years) 33.3% (16-20 years) 38.1% (more than 20 years)
Professional organization meetings and conferences	50% (less than one year)

	46.8% (1-5 years)
	53.1% (6-10 years)
	59.3% (11-15 years)
	63.3% (16-20 years)
	81% (more than 20 years)
Training programs/workshops/ seminars	66.7% (less than one year)
	78.7% (1-5 years)
	68.8% (6-10 years)
	66.7% (11-15 years)
	63.3% (16-20 years)
	52.4% (more than 20 years)
Other	0% (less than one year)
	6.4% (1-5 years)
	0% (6-10 years)
	11.1% (11-15 years)
	13.3% (16-20 years)
	0% (more than 20 years)

less than one year: n = 6
1-5 years: n = 47
6-10 years: n = 32
11-15 years: n = 27
16-20 years: n = 30
more than 20 years: n = 21

Type of Organization. Education and government were the two types of organizations for which the largest percentage of respondents worked. The survey included 11 choices for type of organization. Space was also provided for respondents to specify other organization classifications as appropriate. The largest percentage of respondents (26.7%) indicated that they worked in education-related organizations. See Table VII for the organization types and their frequency.

Table VII

Practitioner Organization Type

Organization Type	Number of Responses	Percentage of Total (n=172)
Education	46	26.7
Health care	17	9.9
Finance, insurance, and real estate	15	8.7
Business services	12	6.9
Transportation, communications, and public utilities	11	6.4
Independent consultant	10	5.8
Heavy manufacturing	6	3.5
High technology	3	1.7
Customer service	3	1.7
Extraction and construction	1	0.58
Light manufacturing	1	0.58
Other (Write-In Responses)	47	27.3

Forty-seven of the respondents (27.3%) indicated that their organization type was not among the options provided and wrote in a specific type. Of these, more than half indicated that they worked for government-related organizations. See Table VIII for the organization types and their frequency.

Table VIII

Practitioner Organization Type: Other Types

Organization Type	Number of Responses	Percentage of Write-In Responses (n=47)
Government:		
State government	8	17.0
Government	7	14.9
Federal government	4	8.5
Government training center	1	2.1
Government contractor	1	2.1
Government—federal programs	1	2.1
City government	1	2.1
National Guard	1	2.1
Government—Army	1	2.1
Wholesale	5	10.6
Retail	2	4.3
Law enforcement	2	4.3
Human services	1	2.1
Social services	1	2.1
Training and consulting	1	2.1
Military and commercial training	1	2.1
Government training support	1	2.1
Publishing	1	2.1
Indian tribe	1	2.1
Electric utility	1	2.1
Oil and gas—Energy	1	2.1
Travel and tourism	1	2.1
Recreation	1	2.1
Telecommunications manufacturing	1	2.1
Aerospace	1	2.1

Practitioners' Problems or Difficulties with Needs Assessment. On the practitioners' survey, respondents were asked to identify the problems or difficulties they

had encountered with needs assessment in practice. This data was analyzed using a technique for developing categories called the KJ Method. The problem statement categories synthesized from the practitioners' survey using the KJ Method became open-form questions for the scholars' survey. The practitioners' problems or difficulties with needs assessment—responses to the open-form item on the practitioners' survey—were transferred to index cards. One problem or difficulty was printed on each card. A set of 185 cards was created. A team of 16 students in a graduate-level HRD course sorted and grouped the cards. To facilitate the grouping of such a large number of cards, the students were divided into six teams, each team receiving approximately 30 of the printed cards. Before starting the sorting activity, the teams were provided with an overview of the KJ Method and its purpose (Appendix H), as well as printed instructions for sorting the cards and labeling the card groupings (Appendix I). After grouping its cards, each team combined with one other team and grouped the combined team's cards. The index cards were sorted and grouped on the basis of their affinity or commonality. The three combined teams labeled their resulting groups of cards with "header cards" that used words which conveyed the meaning of the index cards in that group. This label was an unambiguous statement that conveyed the meaning of the cards in direct—not abstract--terms (Mizuno, 1988). Each labeled group was then considered as a single problem statement. This grouping process yielded a set of problem statement categories that became open-form questions for the second survey—the survey of needs assessment scholars. See Appendix J for the text of the header cards and the practitioner response cards sorted under each header card. The following nine problem statement categories were synthesized from the results of the KJ Method:

Table IX

Practitioner Problems or Difficulties with Needs Assessment

Problem Category and Explanation

1. Management Support

Needs assessment practitioners find it difficult to know how to get the management support needed to gather information about needs, especially when the true needs may not be apparent or when the practitioner's control over the situation may be very limited.

2. Management Attitude

Needs assessment practitioners experience difficulty in getting top managers to agree to a needs assessment or to use the results of assessment:

- Top managers often view themselves as the decision makers and problem identifiers—they may think that they can already identify the problems and may resist data that threatens their assumptions.
- Top managers may have other agendas, may be in conflict with other managers, or may not value human resource development (HRD).

3. Scope

Non-HRD professionals in the organization perceive needs assessments as being too time consuming.

4. Resources

Needs assessment practitioners experience difficulty in getting sufficient skills and time to thoroughly plan a needs assessment, collect the data, and analyze the results.

5. Organizational Readiness

The current strategies of the organization and the thought processes of its employees can make it difficult for needs assessment practitioners to initiate a needs assessment or to connect the results of assessment to the organization's strategies and goals:

- Decision makers may find it hard to justify a needs assessment if they are unaware of the need for its results.

- Acceptance of current directions and approaches may prevent managers from considering other options or the need for new information.
- The organization may not have accomplished a baseline level of strategic planning as a prerequisite to an effective needs assessment.

6. Definitions of Needs

Needs assessment practitioners find it difficult to know how to define the needs, how to separate needs from wants, and how to ensure objective needs assessment processes and results, especially in political and systemic organizations.

7. Selection of Assessment Tools

Needs assessment practitioners experience difficulty in selecting the appropriate tools for gathering and analyzing data for specific situations.

8. Implementation of Assessment

Needs assessments are difficult to implement:

- Practitioners must manage the expectations of upper management.
- Coordinating schedules of key individuals and other aspects of the needs assessment process is difficult.
- Practitioners must avoid steering groups and individuals toward training as the universal intervention.

9. Results

The results of needs assessment are not used or are less effective:

- Follow-through is difficult.
- Organization constraints interfere with the prioritization of needs.
- The rapid pace of change makes assessment results out-dated by the time a solution can be implemented.

Findings from Phase 2

Phase 2 Data Collection

The purpose of the second survey was to identify scholars' solutions for handling the problems identified by the practitioners. The nine problem statements synthesized from the practitioners' survey (Phase 1) became the survey items for the second survey. Needs assessment scholars were identified based on authorship or co-authorship of at least one article about or involving needs assessment, needs analysis, or performance analysis in a core HRD research journal during a five-year period (1993-1997). This review yielded a list of 22 individuals who had authored or co-authored at least one article. These scholars were contacted by the researcher first by letter, then with a follow-up electronic mail message. Of the 22 scholars initially contacted, nine responded and agreed to participate in the study. The scholars' survey was sent to the participating scholars first by electronic mail. A second copy of the survey was sent by regular mail as a back-up to the electronic mail survey. Both mailings of the survey included a cover letter explaining the purpose of the survey and reminding the scholar of his or her interest in participating. Approximately two weeks later, a second mailing of the survey was made to those scholars who had not responded to the first request. Scholars were again contacted in this second mailing using both electronic and regular mail.

By late December 1998, five scholars had provided written responses to each of the problem statements. Reasons for scholar non-participation included no response, planning for a wedding, and lack of time.

Phase 2 Data Analysis

Each scholar's complete response to each problem statement represented an item for analysis. Two methods for synthesizing the scholars' data were used. Reflective thinking allowed the researcher to control the conditions for thought; a two-axis matrix (Swanson, Watkins, & Marsick, 1997) facilitated recognition of the emergent realities inherent in the set of scholars' responses to each of the nine statements of practitioners' problems or difficulties with needs assessment. Twelve tactics proposed by Miles and Huberman (1994) for generating meaning among qualitative data were identified in Swanson, Watkins, and Marsick (1997). The following four tactics were used to generate meaning from the scholars' data:

- noting patterns—recognizing repeated themes or causal explanations that lead to theoretical constructs
- clustering—separating large ideas from the data into alternative conceptual groupings
- seeing plausibility—finding common-sense explanations of data (not intellectual explanations)
- making metaphors—synthesizing the data into words that characterize the meaning

To avoid over-interpretation of partial data, analysis of scholars' responses was conducted after all scholars had responded. The responses from each scholar were arranged in columns. Each column included the complete text of the scholar's response to the particular survey statement. See Appendix K for the complete set of responses to each problem statement. Analysis of the data from the scholars' survey yielded the

following:

Table X

Scholars' Solutions to Practitioner Problems with Needs Assessment

Problem Category and Scholars' Solutions
1. Management Support
1.1 Recognize the organizational dynamics of power and politics. Build a constituency of needs assessment stakeholders that will advocate the needs assessment.
1.2 Define a strategy for positioning the needs assessment as a priority of the client or decision maker. Build the client's ownership of the results in advance.
1.3 Align a planned needs assessment to organizational issues. For example, align the needs assessment to the organization's bottom line and to its business plan.
1.4 Construct a platform for a convincing proposal. Use the data you have gathered about the identified problem or presumed need as the basis of a sales message.
2. Management Attitude
2.1 Involve the client in the needs assessment.
2.2 Take a situational approach. Recognize the manager's agenda and constraints. Appreciate the fact that the manager's approach may be the most practical given the circumstances.
2.3 Position the needs assessment as an opportunity for improvement.
2.4 Involve the manager so that the manager is seen as the champion of the needs assessment effort. Develop the manager as a missionary of needs assessment through extensive involvement.
2.5 Progress from lower-profile "prototype" needs assessments that have the potential for a significant impact. Demonstrate what a needs assessment can do through incremental assessments that yield cost savings or profit potential.
2.6 Manage your message. Construct a sales message, avoid the language of blame (needs as opportunities instead of shortcomings), and describe the potential results in terms of their financial impact for the organization.
2.7 Walk away from the project.
3. Scope

3.1 Set limits for the needs assessment in terms of the time and/or resources available, then choose the appropriate strategies or data gathering methods. (For example, do you have the time needed to conduct a survey and to analyze its data?)
3.2 Limit the focus of the needs assessment. Interventions that require 2-3 years to implement can lose out to more immediate or newly emerging needs.
3.3 Develop technique short-cuts in needs assessment processes. (For example, look for a starting point that is closer to problems of productivity.)
3.4 Link the needs assessment to the organization's plans.
3.5 Use technology to facilitate communication. (For example, use e-mail to conduct a survey.)
3.6 Project a timetable and get agreement on time and resource parameters before starting the needs assessment.
3.7 Determine—with the client—whether a needs assessment will be cost-effective.

4. Resources

4.1 Sell the value of human resource development as a contribution to the bottom line and to process value.
4.2 Scale the needs assessment to the resources available.
4.3 If your skills are inadequate or lacking, purchase them from others and learn from others' practice.
4.4 Use technology to facilitate communication. (For example, use e-mail to conduct a survey.)
4.5 Project a timetable and get agreement on time and resource parameters before starting the needs assessment.
4.6 Determine—with the client—whether a needs assessment will be cost-effective.

5. Organizational Readiness

5.1 Survey the employees affected by the needs assessment to obtain their input and to gain their commitment.
5.2 Progress from lower-profile "prototype" needs assessments that have the potential for a significant impact. Demonstrate what a needs assessment can do through incremental assessments that yield cost savings or profit potential.
5.3 Use needs assessment as a starting point or stimulus for strategic thinking and planning.
5.4 Involve managers as stakeholders. Show managers how the needs assessment can benefit them and how they can use the new information or data.
5.5 Point out areas of potential for operational and productivity improvement.
5.6 Sell the needs assessment as a part of the strategic planning process, not simply as a means for making decisions about training.
5.7 Consider postponing the needs assessment if managers cannot consider new options or the need for new information.
5.8 Do not assume that organizations operate rationally. A needs assessment may function to help verbalize elements of a strategic plan.

6. Definitions of Needs

6.1 Seek a different line of work; the job is to differentiate between needs and wants.
6.2 Tie needs to operations and to ongoing production.
6.3 Do not impose needs; they should come from the guts of the organization—from the shop floor.
6.4 Be alert to problems that are embedded in the expression of a want. Expressed wants—such as for a particular course—may be intended to buy time or to screen a fault that a manager would rather not deal with.
6.5 Focus on identifying and bridging the gaps between the results the organization wants and those it is obtaining. Ask the right questions to achieve this result.
6.6 Validate the responses of participants with internal and external evaluators to maintain the appropriate focus and to limit the impact of bias. (For example, middle- and low-level managers may focus on their process problems.)
6.7 Set priorities with stakeholders.

7. Selection of Assessment Tools

7.1 Use a "hands-on" approach to data collection if appropriate. (For example, as the size of the organization allows, you can complete a substantial part of the needs assessment by asking questions of individuals.)
7.2 View needs assessment as a conversation, not as an act. Base a needs assessment upon what you know of the organization's operations and what you gather in the form of information.
7.3 Avoid shaping the problem to the tools available.
7.4 Become skilled in the use of many data and opinion gathering devices—including questionnaires, organizational records, observations, and others—as appropriate to the needs assessment at hand.
7.5 If your skills are inadequate or lacking, purchase them from others and learn from others' practice.
7.6 Select tools that can achieve the purpose of the needs assessment. To do this, you must first establish that purpose in advance and with all stakeholders. You must also be familiar enough with the participants to understand issues such as literacy, ethnicity and language barriers, and corporate cultural issues.

8. Implementation of Assessment

8.1 Educate the client about the process and about outcomes expectations.
8.2 Get agreement on the purpose, focus, and scope of the needs assessment during a pre-assessment phase.
8.3 Obtain the commitment of the top manager to stimulate attention and participation from others.
8.4 Find alternative sources of information in the event key individuals are unavailable.
8.5 Reinvent yourself so that the center of your effort is human resource development, not training.

8.6 Avoid discussing training as an intervention until all of the data is collected, analyzed, and discussed with stakeholders.
8.7 Be careful that your critiques do not extend beyond your expertise. Zero in on those needs that are within your competence to solve.
8.8 Become more familiar with performance technology concepts and models. This can help you to focus on the nature of the problem and how it can be solved, rather than unnecessary instructional solutions.

9. Results

9.1 Consider follow-through during the initial planning and conduct of a needs assessment.
9.2 Secure agreement to the follow-up activities and to the roles of all parties during a pre-assessment phase.
9.3 Recognize organizational constraints as possible expressions of priority. They may be a part of the organization's culture which requires your understanding.
9.4 Compromise accuracy toward the goal of a more rapid implementation to accommodate a fluid situation. Complete more "pinpointed" needs assessments by assessing at all times in conjunction with your other duties.
9.5 To reduce the time required to conduct a needs assessment, use technology to facilitate quantitative techniques—such as surveys—and use continuous data input and analysis to facilitate qualitative techniques—such as case studies.
9.6 Follow up according to a timeline.
9.7 View needs assessment as collaborative and inherently political.
9.8 Identify solution implementation and evaluation as part of the project from the beginning.

Discussion of the Findings

Although more than one-fourth of respondents in Phase 1 had worked in the HRD field for five years or less, 72.6% of respondents had conducted a formal or informal needs assessment within the past year. These findings paint needs assessment not only as a contemporary task for a significant majority of human resource development (HRD) professionals, but as a task practiced by a significant number of professionals with less experience. Professionals occupying a variety of roles conducted needs assessment. However, some roles predominated. Managers, instructors, and consultants were the

most frequent HRD role classifications of needs assessment practitioners at the time of their most recent assessment.

Needs assessment was most often conducted in education and government environments. Education and government were the two types of organizations for which the largest percentage of respondents worked. The largest percentage of respondents (26.7%) indicated that they worked in education-related organizations. Of the 28% of respondents who wrote in their organization type, more than half indicated that they worked for government-related organizations spanning the city, state, and federal levels.

Few practitioners acknowledged that they had no background in human resource development. The primary sources for initial preparation in human resource development and for ongoing professional development are HRD workshops, seminars, and courses. Although college-level coursework was an infrequent source for initial or continued development, graduate-level courses provided more practitioners with their background in HRD than did undergraduate courses. For a notable percentage of the practitioners, experience was the basis for their preparation in HRD.

Opportunities for practitioners to gather—including meetings and conferences, training programs, workshops, and seminars—were used for continued professional development by more practitioners at all levels of experience. Significantly fewer practitioners used print-based methods of communication—popular journals and magazines, books, and refereed journals—as sources for professional development compared to other sources. Only two respondents (each had 16-20 years of experience in the HRD field) identified the Internet as a current source. This is consistent with findings in the 1998 ASTD State of the Industry Report, in which fewer than 10% of organizations

surveyed were using interactive, digital technologies, including the Internet.

Practitioners identified a range of problems or difficulties with needs assessment in practice. Represented in the categories of difficulties were fundamental issues, such as distinguishing needs from wants, as well as issues relating to all stages of a needs assessment process. Process issues encompassed organizational readiness and management support, resource availability, and results implementation. These findings did not contradict the determination that "many" needs assessment activities in business are behind-the-scenes efforts that attract less managerial attention than do implementation activities (Moseley & Heaney, 1994).

The scholars in Phase 2 of this study offered specific solutions to individual problems in some cases. In other cases, broader, more strategic approaches were given as means to address a particular difficulty. For example, scholars' solutions which asked the practitioner to broaden and deepen the connection between the assessment effort and the organization's larger issues and processes reflected a more strategic approach to needs assessment. In some responses, the practitioner was also identified as the cause with respect to specific difficulties with needs assessment practice.

Summary

This chapter presented the findings of the study. It described the data collection processes for both surveys—the survey of HRD practitioners and the survey of needs assessment scholars. This chapter also presented the results of data analysis from both surveys. Chapter V will discuss conclusions and recommendations.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Human resource development (HRD) professionals confront an assortment of purposes, terminology, contexts, examples, data sources, and approaches relating to needs assessment. Such an environment, while offering an abundance of choices, may be too variously defined to effectively guide and bound the practice of non-scholars. Greater insight into how scholars approach needs assessment may help to synthesize the message from the literature and may prove instructive for both novices and non-scholar practitioners.

The purpose of this study was to identify the problems faced by HRD practitioners relating to needs assessment and to survey needs assessment scholars on their approaches to those problems. This study focused on needs assessment problems identified by HRD practitioners and solutions to those problems as articulated by needs assessment scholars. Specifically, the study addressed the following questions:

1. What problems do HRD practitioners encounter with needs assessment?
2. What strategies do needs assessment scholars recommend for addressing these problems?

To answer the research questions, this study had a two-phase design. During Phase 1, HRD practitioners were surveyed to identify the problems they had experienced with the practice of needs assessment. During Phase 2, needs assessment scholars were surveyed to identify the approaches they would take toward the practitioners' problems.

Summary of the Findings

In Phase 1 of the research, 172 HRD practitioners responded to a seven-item mail survey. Analysis of the data yielded findings about the respondents and their needs assessment practices. It also identified nine problems or difficulties that practitioners faced with needs assessment. With respect to practitioners, needs assessment was found to be a contemporary task for a majority of HRD professionals. A significant number of these practitioners were relatively new to the field, having worked in the HRD field for five years or less. Few practitioners reported being unprepared in human resource development. For a notable percentage of practitioners, experience was the foundation of their preparation in human resource development. However, their preparation, whether initial or ongoing, relied primarily on HRD workshops, seminars, and courses. In addition, professional preparation at the college level, although infrequent as a source of initial or continuing development, took place more often at the graduate than at the undergraduate level. Finally, practitioners were found to prefer interpersonal opportunities for continued professional development over print-based methods.

With respect to practice, needs assessment was most often conducted in education and government environments. Government-related environments of practice spanned city, state and federal levels. Nine categories of problems or difficulties experienced by practitioners with needs assessment were identified. These problems or difficulties included definitional as well as process issues. The nine problem categories encompassed the following: (1) management support; (2) management attitude; (3) scope; (4) resources; (5) organizational readiness; (6) definitions of needs; (7) selection of assessment tools; (8) implementation of assessment; and (9) results.

In Phase 2 of the research, five needs assessment scholars were surveyed about their approaches to the practitioners' problems. The scholars identified a total of 61 responses to the nine problem categories synthesized from the practitioners' responses. The scholars' responses included both specific and strategic solutions. In some responses, the practitioner was identified as the cause of a particular problem or difficulty.

Conclusions

It can be concluded that power and control are significant issues in the practice of needs assessment. The role of organizational support for, and attitudes toward, needs assessment has been explored in the literature (Cureton, Newton, & Tesolowski, 1986; Rossett, 1990; Sleezer, 1993). Power and control issues infuse a number of practitioners' needs assessment problems. Dealing with insufficient management support, situations of limited control, management attitudes, resource deficiencies, and follow-through are difficulties that acknowledge the boundaries of the assessor's control as well as the role of the decision-maker's authority. Similarly, some scholars' responses to these difficulties explicitly characterize the issue as one of power and control. Others imply a response to a power or control issue by calling for a broader and deeper approach to needs assessment within the organization.

It can also be concluded that the practice and outcomes of needs assessment benefit from planned alignment with the organization's strategic imperatives. Although it had been determined by earlier researchers that needs assessment often had a short-term focus, this periodic approach was termed narrow and insular (Moore & Dutton, 1978). A strategic component to needs assessment has been a recurring theme in the literature

(Dodge, 1987; Georgenson & Del Gaizo, 1984; Grace & Straub, 1991; McClelland, 1992; Mitchell & Hyde, 1979; Moseley & Heaney, 1994; Nelson & Cheney, 1987; Nelson, Whitener, & Philcox, 1995). More recently, Lam and White (1998) concluded that HRD should be a building block in corporate strategic plans. Practitioners' difficulties with management attitude, commitment, and follow-through, for example, imply a need to shape a strategy for assessment that both anticipates and accommodates the potential impact of cultural, political, and other aspects of the particular organizational milieu. Scholars' solutions which ask the practitioner to broaden and deepen the connection between the assessment effort and the organization's larger issues and processes reflect a more obvious strategic response.

It can be concluded that needs assessment benefits from practitioners' preparation and practice as analysts. Data from the practitioners' and scholars' surveys support this conclusion. Practitioners' problems with needs assessment span immediate or tactical difficulties—such as problems with tool selection and process implementation—as well as longer-term obstacles to process effectiveness, such as management attitude and support. Scholars' solutions require the practitioner—or imply the practitioner's ability—to perceive the situation accurately and to recognize the appropriate short- or long-term solution. Similarly, scholars' solutions to practitioners' problems recognize a complex set of skills for effective needs assessment. Some solutions imply a skilled assessor who chooses whether an overt and episodic or a subtle and continual assessment would prove most effective. Others imply that the assessor can determine whether a choice of data collection method or more complex compromise in process accuracy is appropriate. These higher-level skills define the role of the practitioner as that of an

analyst and represent a skill set in need of enhancement. The analyst role furthers the recognition of the needs assessment practitioner as a "strategic partner" to the organization (Holton, 1995) in concept and practice.

It can be concluded that communication between scholars and practitioners contains contradictory messages about needs assessment practice. The diversity in definitions of key terms and of the needs assessment process as a whole has been well documented (Moseley & Heaney, 1994; Sleezer, 1992). A longer view of needs assessment, such as by broadening and deepening the integration of assessment efforts with larger organizational issues and processes, characterize some solutions. Others prescribe a situational approach, accommodation to the time and resources available, a focus limited to near-term interventions, and a compromise between process accuracy and implementation demands. Scholars also make idealistic assumptions about the role of the assessor. They may or may not differentiate between practitioners as employees and those practicing as consultants. Solutions may assume a more independent practitioner—someone who can affect fundamental decisions, such as the decision to conduct a needs assessment, the scope of the assessment process, and the practitioner's participation in the assessment. In contrast, other solutions assume a more dependent practitioner—someone whose practice of needs assessment is necessarily bounded by stakeholders, priorities and political realities.

Situations in which practitioners can engage in two-way communication (communication and feedback) are the most opportune platforms for HRD skill-acquisition and skill-building—including skills in needs assessment. HRD workshops, seminars and courses, and professional organization meetings and conferences represent

the primary sources of practitioners' background in human resource development and for continuing professional development. They are also more evenly represented among practitioners at varied levels of experience. Print-based sources for professional development—journals, books and magazines—primarily reach the more experienced members of the HRD profession, although a significant percentage of HRD professionals have less depth of experience in the field. Although these results may suggest that practitioners prefer interactive opportunities for professional development, they may also identify an opportunity for understanding the limited use of printed resources and for investigating the potential for greater outreach. The Internet may also represent a potentially useful source for continuing professional development.

Implications and Recommendations

This study has implications that can strengthen the connection along the research-to-practice continuum. It can also contribute to the integration of HRD research and practice in pursuit of what Leimbach (1997) called both the "art of application" and the "discipline of scientific rigor".

Implications for Research

This study has specific implications for further research. Because the generalizability of the findings is limited to those who participated in the study—the population of HRD practitioners and the population of needs assessment scholars—studies that target other participant groups are needed. The research method also had specific limitations. For example, different teams using the KJ Method could produce different results from the same data. In addition, the mail survey to HRD practitioners in Phase 1, while accommodating the size and dispersion of the practitioner population,

could not offer the opportunity to clarify questions of either the participants or the researcher. Additional studies that link needs assessment theory and practice, while employing other methodologies, could prove useful. For example, studies could be conducted into needs assessment practices in education- and government-related organizations. This research could build upon the work of Gray, Hall, Miller, and Shasky (1997) and others. The results of such research could illuminate needs assessment practices within a significant domain of practice. In addition, further research could explore the adequacy of models for practice within the education and government contexts. Interviews that examine the scope of responsibility of internal and external needs assessment practitioners are also needed.

Practitioners were found to prefer interpersonal opportunities for continued professional development over print-based methods. Research that explores this finding could enhance practitioners' opportunities for skill development. For example, are print-based sources for professional development less well known or appreciated among a significant body of needs assessment practitioners? Are individual sources characterized by different levels of credibility among practitioners at specific experience levels? Additional research could provide clarification.

Because power and control are significant issues in the practice of needs assessment, further research could address these issues. For example, the question could be explored of whether a relationship exists between the role of the needs assessment practitioner within the organization and the types of problems or difficulties encountered by the practitioner with the practice of needs assessment.

Finally, the perspectives of additional researchers are needed. Due to the reliance

upon the researcher's judgment in interpreting the results of the KJ Method and in synthesizing the responses of the scholars, the field could benefit from examination of the raw data using other researchers and methods. For example, the data could be analyzed using software for qualitative data.

Implications for Practice

This study has implications for the practice of needs assessment. HRD practitioners could apply the solutions and approaches recommended by the needs assessment scholars. Such expert advice can be applied immediately to strengthen the current practice of needs assessment. Educators can also recognize that their students are also practitioners and aid them in connecting organizational issues to needs assessment in practice.

Educators can also communicate frameworks for navigating the topography of needs assessment. By mapping and communicating solution frameworks, educators can help students and practitioners to chart their thinking about needs assessment and to interpret the meaning in scholars' messages. A framework might prove useful, for example, which recognizes both strategic and tactical aspects of practice. Such a framework could identify strategic considerations for navigating around known problems of power and control; it could also offer tactical responses for navigating through emergent difficulties. A framework could also help students and practitioners to make meaning from the many approaches, models, and other conceptualizations from the literature.

Practitioners could benefit from courses, workshops, articles, and books that integrate needs assessment into discussions of organizational performance planning. For

example, strategic planning and needs assessment could both be presented as essential for addressing performance issues. This integration could take advantage of needs assessment theory, skills, and methodology as an "entry-point," according to Moore and Dutton (1978), into the opportunity to have a direct influence upon organization development and operation.

Finally, the practice of needs assessment can be affected by professionals who inform themselves about the environment of practice. For example, practitioners can develop their familiarity with the client organization by learning as much as possible about the organization's politics, operations, processes, corporate culture, and history (including its history with needs assessment). These considerations can affect a needs assessment (Sleezer, 1993).

HRD professionals confront an assortment of purposes, terms, examples, data sources, and approaches relating to needs assessment. This environment, while offering an abundance of choices, may be too variously defined to effectively guide and bound the practice of non-scholars. Greater insight into the difficulties that HRD practitioners encounter with needs assessment can inform future instruction on needs assessment practice. Greater insight into how scholars address needs assessment issues may help to synthesize the message from the literature and provide new insight to instruct non-scholar practitioners at all levels of experience. Considered together, the practitioners' problems with needs assessment and the scholars' solutions to those problems may inform future theory development and practices.

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APPENDIX A:

PRACTITIONERS' SURVEY

Needs Assessment Survey

Please respond to *each numbered item* below.

About needs assessment ...

1. Have you *conducted* a needs assessment (formal or informal) during the past year?

   _____ Yes _____ No (If NO, how long ago did you conduct your last needs assessment? _____)

2. What was your HRD role at the time?

   _____ Instructor
   _____ Manager
   _____ Consultant
   _____ Other (please specify: _____)

3. What problems or difficulties have you encountered with needs assessment in practice? Feel free to use the other side of this sheet if you need more space.

About yourself ...

4. What is your background in HRD?

   _____ Degree in HRD
   _____ Graduate HRD courses
   _____ Undergraduate HRD courses
   _____ HRD workshops/seminars/courses
   _____ No background in HRD
   _____ Other (please specify:_____)

5. How long have you been working in the HRD field?

   _____ less than one year _____ 1-5 years _____ 6-10 years
   _____ 11-15 years _____ 16-20 years _____ more than 20 years

6. What is your primary source for continuing/ongoing professional development?

   _____ College coursework
   _____ Refereed journals
   _____ Popular journals/magazines
   _____ Books
   _____ Professional organization meetings and conferences
   _____ Training programs/workshops/seminars
   _____ Other (please specify:_____)

7. In what type of organization do you work?

_____ Business services (business-to-business and professional service companies)
_____ Customer service
_____ Education
_____ Extraction and construction
_____ Finance, insurance, and real estate
_____ Health care
_____ Heavy manufacturing
_____ High technology (pharmaceuticals, computer, and communications manufacturers; biological and physical researchers; software designers)
_____ Independent consultant
_____ Light manufacturing
_____ Transportation, communications, and public utilities
_____ Other (please specify:_____)

APPENDIX B:

PRACTITIONERS' FIRST COVER LETTER

APPENDIX C

PRACTITIONERS' SECOND COVER LETTER

Dear [HRD Practitioner]:

My name is Craig Maile and I'm a graduate student at Oklahoma State University. I am currently working on my Master's thesis in Human Resource Development. The subject of my research study is the problems that HRD practitioners like yourself have encountered in conducting needs assessment and the approaches that needs assessment scholars take toward those problems. (You might refer to needs assessment as *needs analysis* or *performance analysis*.)

Would you be interested in participating in my research study? If so, simply respond to the seven questions on the enclosed form. Then, return the form using the postage-paid envelope. All responses will remain anonymous and confidential. Your participation will help me develop a tool for helping others with their practice of needs assessment.

Thank you very much for your consideration! If you would like a copy of my research results, please contact me at (405) 377-5762 or at <cmail@okvotech.org>.

Sincerely,

Craig A. Maile

Enclosures

APPENDIX C:

PRACTITIONERS' SECOND COVER LETTER

APPENDIX D

SCHOLARS' SURVEY

August 17, 1998

Hello!

I hope you've had a chance to complete the needs assessment survey which I sent a few weeks ago. If so, please return your completed survey to me in the envelope provided. I've enclosed an extra survey and envelope for your convenience. Your input is very important to my research.

Thank you again very much.

Sincerely,

Craig A. Maile

APPENDIX D:

PRACTITIONERS' PROBLEMS/DIFFICULTIES WITH NEEDS ASSESSMENT

SCHOLARS' SURVEY

PRACTITIONERS' PROBLEMS/DIFFICULTIES WITH NEEDS ASSESSMENT

1. Management Support. Needs assessment practitioners find it difficult to know how to get the management support needed to gather information about needs, especially when the true needs may not be apparent or when the practitioner's control over the situation may be very limited.

2. Management Attitude. Needs assessment practitioners experience difficulty in getting top managers to agree to a needs assessment or to use the results of assessment:

- Top managers often view themselves as the decision makers and problem identifiers—they may think that they can already identify the problems and may resist data that threatens their assumptions.
- Top managers may have other agendas, may be in conflict with other managers, or may not value human resource development (HRD).

3. Scope. Non-HRD professionals in the organization perceive needs assessments as being too time consuming.

4. Resources. Needs assessment practitioners experience difficulty in getting sufficient skills and time to thoroughly plan a needs assessment, collect the data, and analyze the results.

5. Organizational Readiness. The current strategies of the organization and the thought processes of its employees can make it difficult for needs assessment practitioners to initiate a needs assessment or to connect the results of assessment to the organization's strategies and goals:

- Decision makers may find it hard to justify a needs assessment if they are unaware of the need for its results.
- Acceptance of current directions and approaches may prevent managers from considering other options or the need for new information.
- The organization may not have accomplished a baseline level of strategic planning as a prerequisite to an effective needs assessment.

6. Definitions of Needs. Needs assessment practitioners find it difficult to know how to define the needs, how to separate needs from wants, and how to ensure objective needs assessment processes and results, especially in political and systemic organizations.

7. Selection of Assessment Tools. Needs assessment practitioners experience difficulty in selecting the appropriate tools for gathering and analyzing data for specific situations.

8. Implementation of Assessment. Needs assessments are difficult to implement:

- Practitioners must manage the expectations of upper management.
- Coordinating schedules of key individuals and other aspects of the needs assessment process is difficult.
- Practitioners must avoid steering groups and individuals toward training as the universal intervention.

9. Results. The results of needs assessment are not used or are less effective:

- Follow-through is difficult.
- Organization constraints interfere with the prioritization of needs.
- The rapid pace of change makes assessment results out-dated by the time a solution can be implemented.

APPENDIX E:

SCHOLARS' INITIAL CONTACT LETTER

July 23, 1998

[Address]

Dear Dr. [Name]:

My name is Craig Maile and I'm a graduate student at Oklahoma State University. I am currently working on my Master's thesis in Human Resource Development. The subject of my research study is the problems that HRD practitioners have encountered in conducting needs assessment and the approaches that scholars take toward those problems. My adviser on this research is Dr. Catherine Sleezer.

Would you be interested in participating in my research study? Because you have published an article relating to needs assessment (or needs analysis or performance analysis) or performance technology in a recognized journal of HRD research, you have unique insights about needs assessment and the skill to articulate those insights. Your participation, I believe, will be valuable toward informing non-scholars about strategies for solving problems encountered with needs assessment. Your participation would be limited. You would receive a set of problems that HRD practitioners have encountered with needs assessment. Your short, written response to each problem statement would help me to develop a practical instructional tool for practitioners. All responses will be synthesized into a larger description of scholars' approaches to the problems identified. Of course, I will be glad to provide you with the results of my study.

Thank you very much for your consideration. If you would like to participate, please contact me by e-mail at <cmail@okvotech.org>, by phone at 405-743-5448 (work) or 405-377-5762 (home), or at my home address.

Sincerely,

Craig A. Maile

APPENDIX F:

SCHOLARS' SURVEY COVER LETTER: MAIL

APPENDIX G:

SCHOLARS' SURVEY COVER LETTER: ELECTRONIC MAIL

October 14, 1998

[Address]

Dear Dr. [Name]:

Thank you for agreeing to participate in my research. As you may recall, I am studying the problems that HRD practitioners have encountered in conducting needs assessment and the approaches that scholars take toward those problems/difficulties. My adviser is Dr. Catherine Sleezer.

The enclosed document includes a list of nine problems/difficulties with needs assessment that have been identified by HRD practitioners. Please respond in detail to each problem. Your responses should explain how you would handle each problem or difficulty. (If you wish, you may simply number your responses without re-keying the problem statements.) Please send your completed responses to me by e-mail at <cmail@okvotech.org> or by mail at 1723 W. 9th, Stillwater, OK 74074.

Thank you again very much! I appreciate your time and will send you a copy of the research results as soon as they are available.

Sincerely,

Craig A. Maile

APPENDIX G:

SCHOLARS' SURVEY COVER LETTER: ELECTRONIC MAIL

Craig Maile <cmail@okvotech.org> Wrote:

| Dear Dr. [Name]:
|
| Thank you for agreeing to participate in my research. As you may recall,
| I am studying the problems that HRD practitioners have encountered in
| conducting needs assessment and the approaches that scholars take toward
| those problems/difficulties. My adviser is Dr. Catherine Sleezer.
|
| The attached document includes a list of nine problems/difficulties with
| needs assessment that have been identified by HRD practitioners. Please
| respond in detail to each problem. Your responses should explain how you
| would handle each problem or difficulty. (If you wish, you may simply
| number your responses without re-keying the problem statements.) Please
| send your completed responses to me by e-mail at <cmail@okvotech.org> or
| by mail at 1723 W. 9th, Stillwater, OK 74074. I am sending a backup copy
| of the attached file of problem statements by regular mail.
|
| Thank you again very much! I appreciate your time and will send you a
| copy of the research results as soon as they are available.
|
| Sincerely,
| Craig A. Maile
|

APPENDIX H:
OVERVIEW OF THE KJ METHOD

Aggregating or Grouping the Data: KJ Method/Affinity Diagram

Background: Analysis of responses to an open-ended survey question will use a technique for developing categories. According to Merriam and Simpson (1984), collected data can be organized into managable units through aggregation, a process moving from the specific toward the general in pursuit of "patterns characteristic of most of the pieces of the data" (p. 97).

One process for developing categories is the KJ method (affinity diagram). This method, named for its designer Kawakita Jiro, clarifies unresolved problems by grouping disorganized verbal data—in the form of sentences and everyday expressions—according to their mutual affinity and not on the basis of preconceptions or existing categories (Mizuno, 1988). The KJ method seeks to apply the right half of the sorter's brain by grouping data on the basis of feeling. (*Feeling* is defined as a state that precedes logical consciousness.)

As operationalized by Brassard (1989), creating an affinity diagram is a team process of 4-8 persons.

Steps Completed

Step 1: Select a theme.
Step 2: Collect narrative data.
Step 3: Transfer narrative data onto cards.

Steps Remaining

Step 4: Sort the cards.

A. Shuffle the cards (to eliminate any pre-existing order).
B. Group the cards quickly and silently by their mutual affinity. Use feeling, not reason. (The goal is an impression that the cards *group themselves*.)
C. Re-group cards as appropriate.
D. Continue grouping the cards until you have 6-10 groupings.
E. Group "lone wolf" cards ("isolates") by themselves. Do not force them into another group.

Step 5: Label the card groupings with a "header" card.

A. Using a blank card, label each group of cards to represent the characteristic of the group. Use 3-5 direct, ordinary terms. Do not use abstract terms or jargon for each header card.
B. Place the header card above each grouping.

C. Stack the final groups with the header card on top. Put a rubber band around each group.
D. Discuss the labeled groups. For each group, write a statement that explains the label. (This is not a step in the KJ method. I have added it to facilitate my study.)

Step 6: Draw the affinity diagram.

A. On a sheet of paper, draw the header cards horizontally (like an organization chart). Below each, list the cards in the grouping. Draw a circle around each grouping.
B. If any groupings appear to be related, draw them next to each other, draw a circle enclosing the groupings, and create a header card for the larger grouping.

References:

Brassard, Michael (1989). *The memory jogger plus: Featuring the seven management and planning tools*. Methuen, MA: GOAL/QPC. This publication offers guidelines for each step in the process of developing an affinity diagram using a team approach. It includes helpful process notes and simple diagrams.

Merriam, Sharan B. and Simpson, Edwin L. (1984). *A guide to research for educators and trainers of adults*. Malabar, FL: Robert E. Krieger Publishing Company. This publication discusses the organization of data in general. It also describes a similar process for grouping verbal data, but does not include the affinity diagram.

Mizuno, S. (Ed.). (1988). *Managing for quality improvement: The seven new QC tools*. Cambridge, MA: Productivity Press. This publication describes the KJ method in particular and discusses each of the method's seven steps in great detail. It includes an overview of the theoretical framework behind the method.

APPENDIX I:

INSTRUCTIONS FOR SORTING THE CARDS AND LABELING THE CARD GROUPINGS

Sorting the cards

Shuffle the cards (to eliminate any pre-existing order).

Group the cards quickly and silently by their mutual affinity. Use feeling, not reason. (The goal is an impression that the cards *group themselves*.)

Re-group cards as appropriate.

Continue grouping the cards until you have 6-10 groupings.

Group "lone wolf" cards ("isolates") by themselves. Do not force them into another group.

Labeling the card groupings with a "header" card

Using a blank card, label each group of cards to represent the characteristic of the group. Use 3-5 direct, ordinary terms. Do not use abstract terms or jargon for each header card.

Place the header card above each grouping.

Stack the final groups with the header card on top. Put a rubber band around each group.

Discuss the labeled groups. For each group, write a statement that explains the label.

APPENDIX J: HEADER CARD AND PRACTITIONER RESPONSE CARD TEXT

HEADER CARD: "RESPONSE RATE AND FOLLOW THROUGH"

Informal needs assessments conducted. Problems with getting support to do and then to follow-up based on results.

Follow-through with training—there's always a good excuse for not taking the time or waiting til the last minute.

Mail-outs often get low return rate

Amount of time to do

Response rate

Charging a fee

Trying to get cooperation from various organizations

Our challenge is to get enough time approved, so the NA will be conducted and evaluated according to industry standards.

Time—difficult to survey, analyze and make recommendations quickly

Getting the employees to answer the questionnaires and return the assessments on time

Found informal conversation or performance review conversation worked better than written.

Diversity (experience) of target audience

Mostly getting people to return them

Low return from participants if written; good feedback if verbal "interviews"

Getting employees to respond honestly. There was a feeling that they were responding with what they thought I wanted to hear.

Getting responses returned

Rate of return on surveys is generally less than 50%. Returned surveys reflect "snapshots" of current desires; seldom deal with future needs.

In industry, people don't want to take time for a needs assessment. They want quick fixes (which of course rarely work).

HEADER CARD: "WEAK USE OF ASSESSMENT APPLICATION"

Applicability of data provided by respondents

Unclear expectations of those being assessed.

Assessments not utilized when they are needed to identify direction, etc.

Lack of returned surveys, probably from apathy among employees. Some don't think they need further training/updates.

No knowledge of mission of organization

The training needs that employees express aren't necessarily their priorities nor their managers'. It's difficult to tell how urgent and important that the needs are.

Sometimes, needs assessment has to be a generalization—I didn't know exactly who my audience would be.

They become "wants" assessment, not "needs" assessment

Information generated used in ways it was not intended (ex: to punish the person for the feedback given) etc.

Trust or lack of trust—by people involved as to what will happen with the information.

Low return rate

Interpretation of assessment questions and subsequent responses

Feedback to participants in an assessment—Why would I give information, if I'm not sure I will see any difference

Willingness of target audience(s) to participate meaningfully

Communicating results of survey back to those surveyed

Taking needs assessment surveys seriously

Typically, our company does not do a lot of needs assessments in a formal manner. Most are done based [on] a pre-conceived notion with little sense of objectivity.

Assessment conducted by unskilled assessors who do not evaluate the data appropriately, etc.

Assessments done for the wrong reason

If leaders can create the right atmosphere as a learning, growing organization, then it is not difficult

Most practitioners view needs assessment as an opportunity to send out a wish list to customers, rather than a method for determining training needs, i.e. check the courses you would like to see offered.

Are those responding qualified?

Honest reporting [de]void of politics

Poor packaging/presentation of the results

HEADER CARD: "FOLLOW THROUGH"

Fear and concern on the part of those completing the assessment on how their responses may be viewed by state office administration. We take extra precautions to insure confidentiality.

Getting the client to identify the nature of their business.

Getting folks to follow-through w/commitments

Getting accurate feedback from customers

Participation of people

Unfortunately I find a lot of younger employees just don't care. They are just spending 8 hours a day here and it is a job, nothing more.

While any type of assessment is usually beneficial, any questionnaires, surveys, etc. are difficult as the return percentage is low.

Rate of return on written questionnaire is low—25 to 30%

Staff are reluctant to participate. They do not see the need. Fear of change that needs assessment will call for.

People do not want to do them. Have fear of reprisal or lack of confidentiality.

I get a higher return rate if I hand them out individually and personally.

Procrastination

HEADER CARD: "ROLE OF RESEARCH"

Collecting responses and coordinating schedules of key individuals are major issues, but many clients don't really know what their needs are without some serious strategic planning up front. It takes some time to get really good responses. Most of my clients are small businesses who got started in business because they had a craft or skill they wanted to pursue with little or no business management background. Most need to learn how to stand back and look at the business objectively and plan its future in order to assess personnel needs.

Assessments OK the follow through on recommendations are tough

Objectivity re the subject, employee, etc. is often a problem. Such as employee evaluations. Some managers maintain a point system to avoid.

Employees have been very open when I discuss their personal needs in one on one conversations.

I have found employees will be more honest with a written, anonymous survey.

People tend to use interview time to vent about managers, administrators, employees

Process takes time (especially to collate questionnaire data)

Methodology, i.e. tying needs assessment to business goals/results.

Quantitative vs. qualitative

Using a variety of methods to insure complete data

Prioritization of needs given organizational constraints

Assessment of learner's acceptance and utilization of shared materials

Being sure the people I work with from the client company are knowledgable of needs assessment procedures

Extremely high speed of change at the present time with more demands on my staff. The training resulting from needs assessment was inadequate and provided by sources outside the health care field.

Defining exact requirements of what customer really wants

Needs assessments are one of many things that seem relevant in college, and in the

practical world we pay a lot [of] lip service to, but ignore in actual practice.

Many needs assessments are primarily surveys asking employees what kind of training is needed to improve their job performance. Training should not be based primarily on this type of assessment. Assessments based on daily performance reviews, coupled with opinion surveys are much more valid.

HEADER CARD: "RESOURCE PITFALLS"

People don't know they need what they don't know, so there is often an upfront education component.

Respondents say too time consuming

Clients don't know enough about a software package to accurately state "what they need to learn."

Many companies are not aware of what their needs are. It is then incumbent upon you to uncover these needs through direct and indirect probing.

Most training organizations determine what will be taught without conducting a needs assessment and do not desire data that may threaten their assumptions.

People not really knowing what they need

Many Human Relations people in Retail stores don't seem to know much about assessments for handicapped people. I assess people w/many differing abilities on many work sites.

Since I manage an int'l training program I must rely on information provided in official reports, etc. Sometimes it is feasible to conduct an in-country assessment.

Most practitioners aren't skilled at writing or conducting surveys and interview schedules to the level required to consistently gather effective needs assessment data.

Most organizations do not have a strategy that is detailed enough to link an HR or Training strategy to.

Trying to get cooperation from various organizations

HEADER CARD: "TIME ISSUES"

Our challenge is to get enough time approved, so the NA will be conducted and evaluated according to industry standards.

Completing in timely manner

Lack of time given to develop effective assessment tool

Time involved in data collection and analyzing the data. Most other problems were eliminated due to the process used.

Not enough time to do a thorough job

Time to prepare and collect data

HEADER CARD: "IMPLEMENTATION"

Managing the expectations of upper management. Steering groups and individuals away from "training" as the answer to every situation.

We serve 9 state prevention systems—it's difficult to identify baseline info across the 9 states and among 3 agencies with different focus

Implementation

HEADER CARD: "CHANGE"

Changing business environment/technology and learning/skills improvement in employees

Change

HEADER CARD: "DEFINITION OF NEEDS"

Post-needs assessment action/commitment lacking for implementation of needs assessment findings/recommendations

Too complex: Many different issues throughout an organization employing 3000 people. Focusing on top priorities is difficult.

Adults giving the time for assessment

The main barrier most commonly seen is getting personnel to understand that it is beneficial for them.

Many needs are hidden and are not uncovered by 360-degree analyses nor by the perception of others

Altering behavior of associate to maximize their work experience with current need

Interpretation of definition of needs

Focusing on what the "Real" needs are. Identifying the needs.

Taking the time needed to be as in-depth as I would like, to find out true needs of the organization/emp.

Matching "needs" to "want." For example, people "want" stress management, but what they "need" is organization and planning.

HEADER CARD: "MANAGEMENT ATTITUDES"

Other managers don't fully understand needs assessments, which makes it more difficult to successfully do them and get their support for the outcomes.

Upper management support

Needs assessment should be addressed to senior mgmt. Senior management must decide what skills and characteristics it will need in a staff at a 10 YEAR time horizon.

Acceptance of findings upon completion of assessment

Getting buy-in from upper mgmt. that the NA is necessary and that they don't really know all the problems and "quick fix" solutions.

[Asking?] lower level managers to do a needs assessment is not really fruitful (in my opinion)

Organization/community not understanding the need for assessment

Convincing of senior mgmt of value of training

Willingness of some senior associates to be open to value of training and learning experiences

Management['s] unconscious incompetence regarding the value of needs assessments

HEADER CARD: "MANAGEMENT LIMITATIONS"

Nothing with the assessment process itself; resistance from management arose when results contradicted their perceptions of where and what training was needed.

Conflict of perceived needs between management levels

Managers who already think they know the answers

The only difficulty I have had is getting past management's hidden agendas in some instances.

Upper management commitment!

HEADER CARD: "FAULTY N.A. DESIGN"

Customers do not fully appreciate/understand the need for assessment in developing training programs

Resources to conduct study

Finding something user-friendly, accurate, and applicable to my groups

Lack of funds

Lack of interest from mgmt.

Lack of communication between depts.

Control over the situation is very limited

Identifying and recommending the solution can be somewhat difficult at times.

Sufficient respondents

Clarity in language of survey

Surveys are almost always used and other perhaps more appropriate data collection tools are ignored (interview, focus group, data analysis)

Access to needed data

HEADER CARD: "SUPPORT FOR NEEDS ASSESSMENT"

Top mgmt. support

Convincing others of its worth

The biggest issue—the organization that makes no effort to use the information or change how they do things

Seldom am I brought in with information from a needs assessment that is attendee-driven. The attendees are often told they need the class by upper management. Too often the

powers that be want a quick fix to some fundamental human relations dilemmas.

Employees and supervisors are not sure what the real basic need is.

Resources to conduct

Conflicting ideas of needs from participants' viewpoints (i.e. manager, supervisor, training dept., employee)

Managers cooperate as long as they can continue to pretend that they don't need training because they know everything or "don't have time", and as long as they can keep their "fix those people" attitudes about their colleagues.

Management commitment to conducting needs assessment

Most people find change difficult and are unwilling to change unless forced.

I am used as the "hatchet" when technical writing classes are offered. I am asked to do a pre-test and use that to define the attendees in the class. This often allows for hostility on the part of those chosen to attend. Weakens my rapport with the class members.

The lack of support

HEADER CARD: "RESOURCES"

Company not willing to devote resources needed to meet the training needs expressed by the need assessment participants (supervisors)

Budget

Needed resources

Time and funding. Results ignored due to cost ceilings.

Lack of time and people to conduct complete assessments and to analyze and fully utilize the results appropriately

Lack of buy-in from upper management. They thought it was a waste of time and money.

Time and expense. I find an informal assessment must meet my needs because of constraints.

Willingness of organizations to invest time and money in a reliable needs assessment

Time management

It is time consuming at times

Managers don't like to fill them out because it is time consuming

Management doesn't understand the need for it—doesn't want to pay for the time it takes and doesn't believe the results.

Questions and approach written only to support management's current direction and approach

HEADER CARD: "UNCLEAR NEEDS ASSESSMENT OUTCOMES/RESULTS AND FORMAT"

It is also challenging to analyze the results to reflect true training needs versus other problems (such as mismanagement, poorly defined job responsibilities, miscommunication, reluctance to change job or department duties and/or focus, etc.).

Getting away from "territorialism" views of management to get an objective assessment

Drawing valid, non-biased conclusions from raw data (from interviews, surveys, etc.)

How to assess objectively

Unclear expectations of those being assessed; no knowledge of mission of organization

Getting the client to clearly describe the issue

Discovering needs and issues not identified by the client

Many times it is a wants assessment vs. a needs assessment. It in many cases (responses) are wants instead of real needs.

Defining needs from professional services

Bottom line impact

The TNA was not a procedural or systems analysis, but to identify training needs which could be address[ed] either by personnel [or?] outside contractors.

Identifying and clarifying desired performance and outcomes

Ensuring the assessment gets to the real need (not just perceived need for training)

Getting personnel to identify their needs

Unable to communicate ROI

If I am hired to train soft skills or organization development, I am usually given a topic and the class is volunteer, open enrollment. This means that it is usually a topic that "someone" in HR decided would be a "good" topic to solve some interpersonal relationship conflicts. What generally happens is that those in attendance are there for their own personal agendas and/or they need some CEUs for the year. The need is not efficiently addressed. Generally, there is no follow-up assessment with this kind of hit-or-miss training.

Don't feel like employees know what they would [like?] to improve on-learn-change

Just finding time with the employees to discuss needs

People being honest

Biggest problem is long range scheduling of resources to production, i.e. there is software to estimate function [point?] analysis of software but the algorithms used to translate that into actual resources are very fluid and can deviate by 50% by tinkering with the input.

Developing a well-written and "to-the-point" needs assessment can be difficult.

Developing survey that gets usable information

Insufficient time for instrument design and pilot and for analysis of results

The format

No funding to implement the training identified.

HEADER CARD: "NO APPARENT PROBLEMS"

None

None

None

We have not had any problems.

Clients don't know what they don't know/denial

APPENDIX K:

SCHOLARS' RESPONSES PER PROBLEM STATEMENT

1. Management Support. **Needs assessment practitioners find it difficult to know how to get the management support needed to gather information about needs, especially when the true needs may not be apparent or when the practitioner's control over the situation may be very limited.**

Scholar 1:
Needs assessment starts with validation of organization training and development needs as part of the business plan. If at that point HRD needs are not considered and incorporated, part of the potential impact is lost through development inefficiencies. If the practitioner cannot show that training contributes to the bottom line, then management will be extremely reluctant to support assessment and history will repeat itself in lean times by having HRD one of the first things eliminated to save money.

Scholar 2:
To get management support, I would first build a constituency of stakeholders that would be willing to join in on advocacy. In an actual workplace, such a constituency might include middle managers, production managers, engineers, etc.—people who would be willing to vouch that their work units, through their subordinates, would benefit from the training. In other words, the approach here has to be partly political. Beyond the building of a constituency, I would take an informal approach to getting information that supports needs. I'm assuming that the person who is seeking information would have some status. It is possible to gather much information informally, through conversation, and through observation. The trainer needs to walk around.

Scholar 3:
Practitioners should accept that they usually do not operate from a position of power. Therefore, they must be supported by the manager for whom the needs assessment is conducted, the client. Practitioners should identify their client; who has the authority to pull the plug on the needs assessment or implement the recommendations. This is easier said than done. As a general strategy, the needs assessment should be given to the manager so that person has possession of it. It does not belong to the practitioner, even though this may hurt a little. The attempt is to make the needs assessment important to the manager.

Scholar 4:
When the practitioner becomes involved, there has been some kind of problem detected by management. I suggest that the practitioner ask to take time to "confirm" the need or problem by talking to some people and doing some observations. This will provide the practitioner with more "insight" into the problem. "Confirmation data" sometimes do, and sometimes don't, confirm the predetermined problem. But this tactic does give the practitioner a chance to collect some data and get a sense of the total situation. The data can then be used to talk convincingly with the decision maker about a more thorough study, or moving toward a solution.

Scholar 5:

Tying NA to a larger Performance Improvement need sometimes helps to "sell" the idea to management. It shows how gathering data will affect organizational objectives. Witkin suggests that no assessment be made without support of stakeholders and issues of ownership of results are made clear before the NA. IOW, analysts have an ethical responsibility to not perform a NA if such issues cannot be resolved.

2. Management Attitude. **Needs assessment practitioners experience difficulty in getting top managers to agree to a needs assessment or to use the results of assessment:**

- **Top managers often view themselves as the decision makers and problem identifiers—they may think that they can already identify the problems and may resist data that threatens their assumptions.**

  Scholar 3:
  There are few managers who are going to compromise their decision-making authority to the outcomes of a needs assessment. Additionally, they may have spent considerable effort identifying the problem and its causes before the arrival of the needs assessor. It can be helpful to work with a manager to sort out problems, causes, symptoms and solutions. There are many who propose solutions without identifying problems.

  Scholar 5:
  Again, using a more holistic PI model helps. This is a power and control issue that is difficult to work around. I usually make the idea theirs and make sure they are seen as the champion of the project. Another method is to involve them in the process to such an extent that they become a missionary of NA.

- **Top managers may have other agendas, may be in conflict with other managers, or may not value human resource development (HRD).**

  Scholar 3:
  The manager's agenda may be very practical and the needs assessor may need to understand. For example, production schedules may prevent certain key information sources from being involved in a needs assessment at some times. Also, the time reference of the manager and the needs assessor may not be in synch. A manager may have a quarterly goal and the needs assessor may be thinking of a three-year cycle of problem identification and resolution. With limited mutual commitment between employers and employees it is not surprising that some managers do not value human resource development. Why should they train their present employees for another employer's benefit? Isn't it more economical to go to a temporary employment agency and hire the specific skills that they need and not be bothered with training and other problem resolution?

  Scholar 5:
  Walk away from the project.

Scholar 1:
The problem in my opinion rests with the HRD practitioner. Everything is selling and training and development is no exception. If managers do not see the value of training, they won't see the need for assessment.

Scholar 2:
I think that one way to change management attitude is to involve them as much as possible in the assessment, to seek and incorporate some of their ideas, and to avoid the language of blame. Needs do not have to be shortcomings that make managers defensive. They could be positioned as areas of improvement opportunity.

Scholar 3:
Needs assessments are a threat to many managers and a needs assessment may be resisted by whatever means available. Sometimes it is possible to convince a manager that there is a problem that is adversely affecting the manager and a needs assessment can serve to root out the causes of the problem. However, the things that bother managers may not seem logical to needs assessment practitioners. It is tempting to assume that the manager's problem is based on the economics of a business and that the problem is understood. The manager's problem may be one of company politics, for example. The needs assessment can be viewed by the manager as a tool for solving such a problem in the manager's favor. Some needs assessments will be agreed by managers for the sake of buying time, not because there are expectations for high value outcomes.

Scholar 4:
Key word in this problem statement is "top managers." Our literature makes us assume that to be successful we must sit and reason with the CEO and the Board of Directors. These people are not accustomed to calling on designers or HRD people to identify and solve corporate problems. My suggestion is that the practitioner group start at a lower level in the organization and conduct prototype studies with potential for high impact. These can then be used to show top management what the practitioners can do. Good examples with defendable cost savings or profit making solutions are what top management will respond to, not more theory!

***3. Scope.* Non-HRD professionals in the organization perceive needs assessments as being too time consuming.**

Scholar 1:
It is in fact time consuming. Most things of value are. Again, the task is to sell the value of the process and its outcomes. The key again is to link HRD to the "business plan."

Scholar 2:
I am confused by this. Are you concerned with scope, or with duration? These are different things. I would say that it is better to have a thorough needs assessment than not. But perhaps it all has to do with perception. Long surveys that take months to analyze may not be the way to go. Efficient strategies, such as meetings with key stakeholders, might be more appropriate.

Scholar 3:
Many needs assessments are too time consuming. There may be a little "Ken Starr Syndrome" at work here. The needs assessors want to uncover all of the problems and related events and have results that they are 100% sure they can defend. One result is that the needs assessment keeps on expanding as more and more interesting avenues emerge. It may be necessary to set limits for a needs assessment in terms of time or resources. Needs assessors should try to develop short-cuts for the needs assessment process. A friend of mine suggests that the first question to a manager should be, "What has changed (in the area where the needs assessment is to be conducted)?" This will provide a starting point close to the problems of productivity. A needs assessment report that broadens the topic of the study will, most likely, have limited use. Changes that require 2 or 3 years to implement will probably lose out to more immediate needs and will be covered over by newly emerging needs.

Scholar 4:
Needs assessment studies can be as long as they need to be. Use short-cut techniques and computer technology for communication. See Allison Rossett's book, "First Things Fast," just published by Jossey-Bass Pfeiffer. We don't have to take forever to do these studies.

Scholar 5:
Project a time-table and get agreement on time and resource parameters during pre-assessment. Use of technology such as e-mail and Lotus Notes can substantially improve time on survey-related NA processes. Another approach is to ask managers what the consequences may be if a NA is not performed. In some cases a NA is simply not cost-effective.

4. Resources. **Needs assessment practitioners experience difficulty in getting sufficient skills and time to thoroughly plan a needs assessment, collect the data, and analyze the results.**

Scholar 1:
In cases where the practitioner is being rushed which results in inadequate preparation, the problem again rests with the practitioner. They have failed to sell themselves and the value of HRD. The concept of bottom line and contributing to process value are not passe.

Scholar 2:
I have no thoughts here. This might be idiosyncratic, and not normative. Perhaps needs assessment need not be an overt act. Maybe those who perform it have to learn informal, subtle strategies, that yield information.

Scholar 3:
The needs assessment should be scaled to the resources available. More resources will be provided as needs assessments deal with problems that are more central to the operation of the enterprise. It is doubtful that a needs assessor will ever feel as though sufficient resources have been provided.

Scholar 4:
If practitioners do not have the skills to plan, conduct and analyze the data from needs assessment, then they should not be doing them. Hire someone who has the training and experience to do it, and learn from them.

Scholar 5:
Project a time-table and get agreement on time and resource parameters during pre-assessment. Use of technology such as e-mail and Lotus Notes can substantially improve time on survey-related NA processes. Another approach is to ask managers what the consequences may be if a NA is not performed. In some cases a NA is simply not cost-effective.

5. Organizational Readiness. **The current strategies of the organization and the thought processes of its employees can make it difficult for needs assessment practitioners to initiate a needs assessment or to connect the results of assessment to the organization's strategies and goals:**

- **Decision makers may find it hard to justify a needs assessment if they are unaware of the need for its results.**

  Scholar 3:
  Some decision-makers understand that the purpose of a needs assessment is to decide what training should be offered. They do not associate needs assessment with solving problems of productivity. If the decision-maker is not aware of any problems, it will be difficult to be convincing about the need for a needs assessment. However, it may be possible to point [out] areas of possible improvement in operations and productivity.

  Scholar 5:
  Sharing with management a NA model that requires setting of priorities and contingencies upon collection and analysis of data helps to get managers to see the importance of the NA.

- **Acceptance of current directions and approaches may prevent managers from considering other options or the need for new information.**

  Scholar 3:
  If managers are not able to consider new options, it may be best to postpone doing a needs assessment. In the meantime, it is well to continue to look for possible interventions that will improve productivity, e.g. Where are changes occuring?

  Scholar 5:
  The old adage "don't fix it if it ain't broke" is one surefire way for an organization to get into trouble very quickly. Show them what is in the NA for them and how the new information can be used.

- **The organization may not have accomplished a baseline level of strategic planning as a prerequisite to an effective needs assessment.**

  Scholar 3:
  This statement assumes that all organizations operate rationally. This is not true. A function of a needs assessment may be to help verbalize the elements of a strategic plan.

Scholar 5:
See comments above.

Scholar 1:
The third prong of this question is the key. Strategic planning starts with the surveying of those employees who are to be impacted by the HRD process. Their input can gain commitment, especially if the practitioner can build on past success and demonstrate that it is not a waste of time.

Scholar 2:
How is this different from "management attitude" or "management support?" "Decision makers" are managers. I think there is repetition here.

Scholar 4:
Key word in this problem statement is "top managers." Our literature makes us assume that to be successful we must sit and reason with the CEO and the Board of Directors. These people are not accustomed to calling on designers or HRD people to identify and solve corporate problems. My suggestion is that the practitioner group start at a lower level in the organization and conduct prototype studies with potential for high impact. These can then be used to show top management what the practitioners can do. Good examples with defendable cost savings or profit making solutions are what top management will respond to, not more theory!

Scholar 5:
If there is no strategic planning in the organization or if management are not strategic thinkers, then NA can be used as a starting point or stimulus for strategic planning and thinking. The models, format, processes, and data collection methods used in strategic planning and needs assessment are very similar and thus the NA can be "sold" as a part of the strategic planning process. Again, involvement of management as stakeholders is required.

6. Definitions of Needs. **Needs assessment practitioners find it difficult to know how to define the needs, how to separate needs from wants, and how to ensure objective needs assessment processes and results, especially in political and systemic organizations.**

Scholar 1:
My basic response is they should seek a different line of work. The job is to differentiate between needs and wants.

Scholar 2:
Needs must be tied to the operations. They must connect with ongoing production. They must not be imposed. Rather, they should appear to come from the guts of the organization—from the shop floor, as it were. Needs must be seen as challenges that can lead to continuous quality improvement.

Scholar 3:
Solutions need to be separated from problems and causes of problems. Often, wants are expressed in the form of solutions, e.g. "We need a course in team building." There may [be] an expression of a problem embedded in this want, but it will take some digging to learn what it is and to verify its existence. Sometimes wants such as a particular course are intended to buy time or to screen some fault that a manager would rather not deal with.

Scholar 4:
While this is a difficult issue, it can be dealt with if the practitioner uses a model which focuses on the results that the organization wants and the results they are obtaining. Middle and low level managers tend to focus on their process problems, or input problems, because that is what they have to deal with every day. The practitioner must ask the right questions that lead to results and outcomes, and work backward from these gaps.

Scholar 5:
Validation of data with internal and external evaluators is valuable in insuring that bias is addressed. Validating responses with participants helps surface politics and hidden agendas. Again, using a NA model that sets priorities with stakeholders can help.

7. Selection of Assessment Tools. **Needs assessment practitioners experience difficulty in selecting the appropriate tools for gathering and analyzing data for specific situations.**

Scholar 1:
Most organizations are not so large at given locations or across the organization that a good portion of the assessment cannot be done in a hands on fashion, i.e., go ask. Then the difficult part of need-want separation begins because the same persons must come to own that not all HRD can be done and the focus must be on what they need. Questionnaires are a substitute but not as effective in my opinion.

Scholar 2:
I do not see this as a problem of tools, but more of strategy. Needs assessment must not be seen as an instrumental act. It is a conversation. It is based upon information and knowledge of the operations. The assessment must not come from HRD alone. It should have the stamp of production as well.

Scholar 3:
A needs assessment is starting off on the wrong foot if it is believed that there are appropriate tools for gathering data waiting to be used. Selecting and using published questionnaires and other devices amounts to shaping the problem and eventually the solution to the tools available. It may be like trying to fix a plumbing problem with a hammer just because a hammer is available but not a pipe wrench. Something can be made to happen but it may not solve the problem. Needs assessors should be skilled in the use of many data and opinion gathering devices: questionnaires, organizational records, observations, and others as appropriate to the needs assessment at hand.

Scholar 4:
If practitioners do not have the skills to plan, conduct and analyze the data from needs assessment, then they should not be doing them. Hire someone who has the training and experience to do it, and learn from them.

Scholar 5:
Select tools that are most likely to help you achieve the purpose of the NA. This implies that the purpose of the NA be established up-front and with all stakeholders. It also requires that the analyst be familiar enough with the participants to understand issues like literacy, ethnicity and language barriers, and corporate cultural issues such as past history with NA or employee surveys. The analysts must have or purchase the skills to analyze whatever data is collected.

8. ***Implementation of Assessment.*** **Needs assessments are difficult to implement:**

- **Practitioners must manage the expectations of upper management.**

  Scholar 3:
  Part of the conduct of a needs assessment is educating the client about the process and expectation for outcomes. When the practitioner is open and informative, the education process helps to build the confidence of the client in the needs assessment. It can help to give ownership of the needs assessment to the manager.

  Scholar 5:
  Again, getting agreement on NA purpose and focus and scope during the pre-assessment phase forces everyone to read off the same piece of paper.

- **Coordinating schedules of key individuals and other aspects of the needs assessment process is difficult.**

  Scholar 3:
  Yes. In some organizations the needs assessment is not assigned a very high priority and other things get scheduled ahead of it. When the top manager explains the importance of the needs assessment and commits to it others will give it more attention and will be more willing to participate. On some occasions it is necessary to find substitute information sources because of the unavailability of some key individuals.

  Scholar 5:
  Purpose and scope should address the importance of the NA and the level of commitment from all involved.

- **Practitioners must avoid steering groups and individuals toward training as the universal intervention.**

  Scholar 3:
  Frequently, there is an assumption that training will be the end result of the needs assessment. This is true for the subjects of the needs assessment and sometimes for the HRD person. HRD people do training, so why should anything but training be expected as a needs assessment outcome? In some cases, HRD folks need to reinvent themselves so that the center of their effort is not training, but human resource development. If the HRD staff is seen as the ones who schedule classes, it will be difficult to overcome the notion that a needs assessment will result in training.

Scholar 5:
When all you have is a hammer, everything looks like a nail. The analyst must remain an analyst, not a trainer. Training as an intervention should not even be discussed until all data is in, analyzed, and discussed with stakeholders. Then and only then will possible priorities or solutions in terms of interventions like training be discussed.

Scholar 1:
I agree with all three assertions. My only response is that your whole questionnaire supports the general hypothesis that effective practitioners must have adequate preparation and experience for a true impact role in [an] organization. The practitioner is being helped today by the fact that training is vital and no longer a luxury. Unneccesary training is the bain of organizations and it is a difficult lesson to learn that training must be tailored to your organization and not what is popular.

Scholar 2:
Some needs could be remedied by training. Others require different strategy. Needs assessment people have to be careful that their critiques do not extend beyond their expertise. They should zero in on those needs that are within their competence to solve.

Scholar 4:
With regard to steering clients toward instructional solutions, it has been my experience with NA teams that the more familiar they are with performance technology models and concepts, the less likely they are to propose unnecessary instructional solutions. When they are serving on a NA team working with a real organization, they focus on the nature of the problem and how it can truly be solved. Using Mager's "Analyzing Performance Problems" flow chart is helpful.

9. Results. **The results of needs assessment are not used or are less effective:**

- **Follow-through is difficult.**

  Scholar 3:
  Ideally, follow-through will be considered in the initial planning and conduct of a needs assessment. With follow-through as part of the needs assessment, the outcomes are more likely to be realistic and possible to carry out.

  Scholar 5:
  Follow-through as I understand it is insuring that something happens as a result of the NA. In NA models that I have used, this is agreed upon during the pre-assessment phase. All parties are aware of the follow-up activities and what their role is.

- **Organization constraints interfere with the prioritization of needs.**

  Scholar 3:
  Organizational constraints may be expressions of priority. They tell what is important in the organization. They may be part of the culture of the organization that should be understood by the needs assessor.

  Scholar 5:
  Constraints are not a bad thing. Setting priorities based on constraints is exactly what you want to happen. This indicates that management sees that the NA process worked.

- **The rapid pace of change makes assessment results out-dated by the time a solution can be implemented.**

  Scholar 3:
  Yes. As a result, many needs assessments should be structured within a shorter time frame and should be conducted more quickly. In some cases, the needs assessor should compromise the accuracy of the needs assessment with the intention of implementing more quickly. When the situation within the organization is changing rapidly, needs assessments cannot be as accurate as they might be in a more static setting. The practitioner may want to set a goal of doing some needs assessments and follow-through within a three-day span, for example. This could be done in an organization where the needs assessor has a background of understanding of organizational goals, culture, workforce, and operations. Short, pinpointed needs assessments could result from the work of a practitioner who always is assessing in conjunction with other duties.

Scholar 5:

We must address the issue of the time it takes to perform a NA. We must start using more technology for quantitative techniques like surveys and continuous data input and analysis for qualitative techniques like "chat room" discussions and case studies. We, as analysts, must become a "walking" analysis machine and continuously gather data, maintain it, and analyze it. Maybe it is time to move away from a stand-alone NA process and develop on-going and continuous NA processes.

Scholar 1:

Active follow up with a time line is the problem. Not the items suggested.

Scholar 2:

Follow-through would probably come easier, if needs assessors do not see themselves as agents independent of the organization within which the assessment is carried out. Needs assessment has to be a collaborative act to be successful. It is inherently political.

Scholar 4:

This may be the most troubling problem of all. My only suggestion is to do two things: first, from the very beginning of the project, obtain the support of the decision maker who commissions the study to follow up on solutions. Secondly, from the beginning of the project, identify solution implementation and evaluation as part of the project, i.e., act as though the project is not complete until the solution(s) have been implemented and evaluated. (I recognize this is easier said than done!)

APPENDIX L:
INTERNAL REVIEW BOARD APPROVAL

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 05-15-98 **IRB #: ED-98-119**

Proposal Title: NEEDS ASSESSMENT PROBLEMS AND SOLUTIONS: IDENTIFICATION OF HRD PRACTITIONERS' PROBLEMS WITH NEEDS ASSESSMENT AND SCHOLARS' SOLUTIONS

Principal Investigator(s): Catherine M. Sleezer, Craig A. Maile

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature: _____ Date: May 18, 1998

Chair of Institutional Review Board

cc: Craig a. Maile

VITA[2]

Craig Allen Maile

Candidate for the Degree of

Master of Science

Thesis: NEEDS ASSESSMENT PROBLEMS AND SOLUTIONS: IDENTIFICATION OF PRACTITIONERS' PROBLEMS AND SCHOLARS' SOLUTIONS

Major Field: Occupational and Adult Education

Biographical:

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Professional Memberships: Association for Career and Technical Education; Oklahoma Vocational Association; Academy of Human Resource Development.