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AN ANALYSIS OF THE UTILIZATION OF NEEDS
ASSESSMENTS BY TRAINING AND
DEVELOPMENT PROFESSIONALS

DISSERTATION

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By

Teri Meadows Hires, M.M.

Denton, Texas

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The purpose of this study was to analyze the utilization of needs assessments by training and development professionals in a large metropolitan training association. The study sought to determine (1) how frequently needs assessments were used; (2) how the results of needs assessments were used; (3) whether the needs assessment model was developed by in-house staff or outside consultants; (4) whether needs assessments were utilized more frequently within specific industry groups; and (5) the respondents' perceived level of importance placed on the needs assessment process. To accomplish these objectives, this study surveyed members of the Dallas chapter of the American Society for Training and Development (ASTD).

The most notable findings include: (1) the majority of respondents reported some degree of utilization of needs assessments; (2) needs assessment results are utilized more frequently in the short-range planning process; (3) the majority of respondents utilized in-house staff to develop needs assessment models; (4) no relationships were found between the industry groups and the respondents'

total experience in needs assessments nor between the industry groups and the respondents' perceived importance of the needs assessment process.

Conclusions drawn for this study are: (1) needs assessments are utilized by training and development professionals; (2) needs assessments are more in demand for short-range planning rather than long-range planning; (3) training and development professionals prefer to use their own staff members to develop needs assessment models; (4) the utilization and perceived importance of the needs assessment process does not differ among industry groups.

Recommendations drawn from this study are: (1) to conduct similar studies in other ASTD chapters; (2) to conduct similar studies in U.S. corporations; (3) to determine which needs assessment methods are most frequently utilized; (4) to evaluate the relative effectiveness of the needs assessment on training programs; (5) to determine the effect of training in needs assessment on the resultant needs assessment project.

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CHAPTER I

INTRODUCTION

Training and development professionals are increasingly subject to financial pressures and accountability requirements as organizations are being forced to respond to public and legislative demands for excellence and fiscal responsibility. Beaudin emphasized this fact by noting that, "given the economic condition of the country, new demands are going to be made of employer-sponsored training" (2, p. 2). Responsibility for new and existing programs places training and development personnel in the auditor's spotlight. Beaudin also stated "the need for more efficiency, more productivity and lower costs will lead to a need for more and more training" (2, p.2). In response to these recent trends, the concept of needs assessment has received renewed and widespread interest by members of the training and development profession as a component of organizational planning strategy.

In support of the concept of needs assessment, Newstrom and Lilyquist note that "needs analysis is important and should be conducted early in any systematic approach to training" (12, p. 52). Price echoes this support, noting that "needs assessment is crucial to

educational and training program development" (13, p. 24). Yet, researchers in the field of needs analysis such as Headrick note that "formal needs assessments are rarely done even though they are strongly recommended in the literature and by most continuing education experts" (6, p. 15). A recent survey of training executives sponsored by the American Society for Training and Development reveals that "although the first step in the textbook approach to training programs is a formal needs assessment, about half the training executives indicated that this step is not taken most or all of the time" (1, p. 35).

This discrepancy between a theoretical requirement for needs assessment and the lack of practical application of such indicates a demand for further study in this area. In light of this conflict, this study attempts to verify the actual utilization of needs assessments by training and development professionals, focusing upon members of a large metropolitan training association.

Statement of the Problem

This study is concerned with the utilization of needs assessments by training and development professionals.

Purposes of the Study

The purposes of this study are as follows:

1. to determine the extent to which needs assessment programs are utilized by training and development professionals,
2. to determine the effect of using needs assessments upon resultant training and development programs,
3. to determine the origin of the needs assessment models utilized by training and development professionals,
4. to determine if needs assessments are utilized more frequently by training and development professionals in specific industry markets, and
5. to determine the perceived importance of the needs assessment process to training and development professionals.

Research Questions

In this study, answers to the following research questions are sought.

1. How frequently are needs assessments utilized by training and development professionals in the Dallas Chapter of the American Society for Training and Development (ASTD)?
2. Are the results of the needs assessment used as a part of the overall planning process according to training and development professionals in the Dallas Chapter of ASTD?

3. Are the needs assessments models used by members of the Dallas Chapter of ASTD developed by staff within their employer's organization or are external experts consulted?

4. Are needs assessments utilized more frequently by training and development professionals in the Dallas Chapter of ASTD within a specific industry?

5. What is the perceived importance of needs assessments to the organizational planning process according to the training and development professionals in the Dallas Chapter of ASTD?

Background and Significance of the Study

A review of the literature and related studies provides the background information upon which the theoretical basis of this work is built. Several studies were found which relate to such areas as planning, evaluation, training and development, and the study of needs assessments in corporations, secondary education, junior colleges, and higher education. These studies are summarized below.

Research data indicate that initial applications of needs assessments typically begin with a clarification of the relationship between the needs assessment as a management tool and the strategic planning process. Within this framework, Kaufman and Thomas make a definite

distinction between the functions of program evaluation, needs assessment, goal setting and planning as major steps in any planning effort.

- (1) Needs assessment is the determination of where one is and where one should be.
- (2) Planning is the determination of what functions are to be performed to get from where one is to where one should be.
- (3) Goals and objectives are set to specify precisely where one hopes to go.
- (4) Evaluation is the determination of the gaps that exist between what you set out to accomplish and what you have accomplished (7, p. 52).

According to Burton and Merrill a definition of needs assessment should begin with an inspection of the concept of needs. These authors also focus attention on the difference between a goal and a need, pointing out that neither are actually solutions to stated problems. Therefore, their definition of needs assessment has been somewhat modified to "the process of determining goals, measuring needs, and establishing priorities for action" (3, p. 26).

Guba and Lincoln (5) are also concerned about the practice of determining needs, noting that many questions on this subject have yet to be addressed by professionals in this area. Guba and Lincoln state that a majority of published needs assessment models deal only with general concepts and therefore fail to take into account local issues and individual differences.

While noted for their work in the field of evaluation, Scriven and Roth also have focused their expertise on needs assessment. Noting that "needs assessment is absolutely fundamental to evaluation," they express a concern for many costly conceptual and methodological errors made in this field, (15, p. 1). Scriven and Roth are uncomfortable with a definition of need that focuses on wants and desires relative to specific goals. While most people are aware of their wants, often these desires are not logically translated into actual needs. As Scriven and Roth point out, frequently the definition of needs assessment requires "that one know what the ideal state is in order to determine a need" (15, p. 2). In practice, this is often not the case.

Along with the debate over the definition of needs assessment, several studies have attempted to report on the actual usage and practical level of acceptance of needs assessment. In a 1984 study from the University of Toledo, Marano (11) surveyed the perceptions of training executives of Fortune 500 corporations to explore how the needs assessment process was used with in-house supervisory training programs. The findings of this study revealed several reasons for using needs assessments: (1) to discover the present level of supervisor performance, (2) to solicit management approval for training programs, and (3) to determine how training programs can contribute

to the profit margins of the corporation (23). Major reasons cited for not conducting needs assessments were lack of organizational cooperation, time constraints, limited monetary resources, and the inability to perceive the value of the needs assessment process.

Another study, done at the University of Alabama, reported actual usage and acceptance of needs assessment and focused on the existing status of needs assessment and the perceived impact of this process in Alabama junior, technical and community colleges (8). While the study pointed out that a majority of technical colleges are prone to use a needs assessment approach to planning, most junior and community colleges do not. Advisory committees were listed as the most common method used to gather information and institutional presidents were overwhelmingly reported as the administrative officer responsible for needs assessment and the degree of program success.

Also focusing on the usage of needs assessments, a study at Syracuse University investigated the concept of needs assessment and its role in higher education instructional development agencies. Chow (4) conceded that, although assessment of educational needs was an integral part of the overall planning process, very few studies have yet been undertaken which explore the actual use of educational needs assessment. The results of

Chow's study indicated that instructional developers in agency settings strongly subscribe to the importance of needs assessment, yet very few formal needs assessment activities were being conducted as a part of the planning process in these agencies.

In the area of acceptance of the needs assessment process, a 1977 study from Ohio State University pointed out factors and problems related to the implementation of educational needs assessments in Ohio school districts (9). Lewis discovered that most of the school systems in his study had difficulty with the needs assessment process. From his findings, Lewis identified a relationship between successful needs assessment programs and three important variables: (1) the extent to which needs assessments were made a regular part of the district's program, (2) the amount of expenditures made available to the district, and (3) the level of administrative support made available to each district (21).

Reporting on usage of needs assessments, a study from Iowa State University investigated needs assessment activities in selected Iowa school districts (14). The problem of the study was to ascertain opinions of school administrators toward the needs assessment process and to determine the extent to which the needs assessment process was utilized. Although the Iowa legislature had passed a

law in 1974 requiring administrators to determine and prioritize educational needs at the school district level, Roberts discovered that 25 percent of the respondents had yet to complete a needs assessment. Those respondents who had completed the process reported minimal involvement from the boards of education, limited time and effort expended toward the needs assessment process, and only superficial follow-up.

Southard documented guidelines for the improvement of the utility of needs assessment results in a study from Florida State University (FSU) (16). Forty-two percent of the respondents perceived the results of needs assessments to be highly useful, while 36 percent perceived them to be moderately useful. Southard detected a discrepancy between the value placed on the information gathered from the needs assessment and the actual usage of such in the decision-making process. Problems discovered in the FSU needs assessment process were (1) methodological/technical, (2) managerial constraints, (3) political difficulties, and (4) resistance from school officials.

Further documenting problems with usage and acceptance of needs assessments, a nationwide survey was undertaken at the University of Michigan concerning the practice and impact of needs assessments in community colleges (10). This study revealed that usage of needs assessments on the community college level was quite pervasive, with only 30

percent of the respondents reporting any formal policies concerning needs assessment. Three major characteristics were identified that positively influence needs assessment projects: (1) official support of governing boards, (2) pre-defined techniques for evaluation of the methods and procedures, and (3) the number of institution-wide needs assessment projects completed by the institution.

With one exception, all of these studies focus on the usage of needs assessment at the school district or community college level. Very little research exists on needs assessment programs as they relate to the field of training and development. This is especially true when the subject matter concerns usage of needs assessment. In light of this paucity of data, this study should make a significant contribution to the available literature by reporting the usage and acceptance of needs assessments as perceived by training and development professionals in a large metropolitan area.

Definition of Terms

The following terms are defined for the purpose of this study:

1. ASTD is the official acronym for the American Society for Training and Development. This organization is a non-profit professional association which serves

23,000 practitioners, managers, administrators, educators and researchers in the field of human resource development and training and development.

2. Needs Assessment is the process of determining the difference between "what is" and "what should be," prioritizing the functions and then selecting those areas perceived to hold the highest priority for resolution.

Organization of the Study

Chapter II provides a review of the literature relevant to the study of needs assessments. Chapter III contains descriptions of the population, development of the survey instrument, and the methods used in collecting and analyzing the data. Chapter IV presents data findings from the research. Chapter V includes a summary of the investigation and the findings, conclusions and observations, and recommendations for further research. Relevant appendices are also included.

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CHAPTER II

REVIEW OF RELATED LITERATURE

This review of literature presents a range of related subtopics drawn from the overall discussion of needs assessments. Several aspects of the subject are presented in order to achieve a comprehensive view of the main topic. The chapter is divided into six parts that include (1) reasons to use needs assessments, (2) needs assessment definitions and models, (3) needs assessment methods, (4) the needs assessment process, (5) problems using needs assessments, and (6) summary.

Reasons to Use Needs Assessments

Needs assessments today are a popular approach to institutional planning. In order to better understand the needs assessment process, it is important to examine the reasons that needs assessments have become so popular and why they are used in the first place.

Initially needs assessments were mandated by the federal and state governments as a planning prerequisite (54, p. 5). They became a requirement in an effort to improve accountability and communication. Needs

assessments became the basis of establishing program goals and were further used as a method of distributing funding to meet these goals. Therefore, the first reason to use needs assessments is a simple one--they were required. But too often the needs assessment effort stopped at this point. For what other reasons should needs assessments be conducted?

There are many different reasons for conducting needs assessments. Every author offers a different point of view. Cross stated her reason for using needs assessment in the following way:

"Ultimately, the single overarching purpose that we hope pervades all reasons for conducting needs assessments is to discern the educational needs of potential students so that we may serve them better, and through them better meet the learning needs of our collective society" (10, p. 196).

While this approach does provide an overall goal to conducting needs assessment, more specific reasons are necessary to further understand this issue.

Based on his practical experience, English has a different reason for conducting needs assessments. "It is nice when your system is growing, to have a set of priorities provided from a needs assessment; but it is almost imperative to have a set when your system is shrinking" (13, p. 16).

Stufflebeam has several reasons for implementing needs assessments. His primary reasons are "to assist in planning and to promote effective public relations, (51, p. 4). He reports needs assessments can help identify and diagnose problems and assist in evaluation efforts. Along these same lines, Price maintains his primary purpose in conducting needs assessments is to "identify the learning needs of a particular target population" (41, p. 25). In a similar approach, Lee uses needs assessments to provide an information base on which to make educational decisions (32, p. 28).

Training and development practitioners should use needs assessments as a way to "ensure that the right programs and services will be offered at the right time" according to Tracey (52, p. 59). He believes needs assessments should be foremost in any planning activities.

Klein suggested three major reasons why it is important to determine educational needs: (1) to determine those needs that have the highest priority in order to facilitate planning decisions and ensure more efficient utilization and allocation of personnel and time, (2) to justify focusing attention on some issues and not others, and (3) to provide valuable baseline information for future performance assessment (28, p. 1).

Further justification for using needs assessments is provided by Coffing. "The formal assessment of needs is

coming to be viewed as an essential information input to education management at all levels from the classroom to national programs" (8, p. 1). Educational agencies are adopting more systematic decision-making processes, therefore making needs assessment a necessary part of planning. Coffing notes that needs assessments are also important to meet ever-increasing public demands for high quality services (8, p. 1).

Kuh (1981) also considers the importance of public demands in using needs assessments. He considers needs assessments to be a public, conscious activity which "requires expertise, public involvement, and recognition of the diverse perspectives and values of various groups" (31, p. 20). Involvement of public constituencies in the needs assessment process is therefore a primary consideration in using needs assessments. Kuh developed a checklist of fourteen practical considerations to be reviewed and monitored during the needs assessment process (31, p. 23-39). These considerations are:

- (1) What is the "problem" or situation out of which needs will emerge?
- (2) Is there a "need" for a needs assessment?
- (3) Does the needs assessment team have the support of school administration?
- (4) What are the purposes and expected outcomes of the needs assessment?

- (5) Whose needs are to be assessed?
- (6) What kind of needs are to be assessed?
- (7) How will the required information be collected?
- (8) Have the data gathering devices been field tested?
- (9) Is the desired information being collected?
- (10) How will data from the needs assessment process be analyzed?
- (11) What are the implications of the needs assessment data?
- (12) Are the results of the needs assessment communicated in the appropriate forms to various stakeholders?
- (13) Have the needs assessment data, implications and recommendations been integrated into the planning process at all levels?
- (14) Are the target groups being monitored to document the continuing validity of the identified needs?

In another approach, Hunt (18, pp. 1-2) devised seven important reasons for using needs assessments:

- (1) to gather information useful in revising existing programs or planning new programs,
- (2) to build support among constituencies,
- (3) to set priorities, allocate resources and justify expenditures,
- (4) to promote a feeling of program success by having a systematic plan,

- (5) to give administrators a documented base on which to make decisions,
- (6) to identify learning requirements of special populations, and
- (7) to improve the quality of service.

As noted above, there are many reasons for using needs assessment. Perhaps they are best summarized as follows:

Education must create a method to evaluate what the needs are, which needs are most important and how they can be best met. If the educational system wishes to continue to serve as the agent for shaping each person into a valuable, well-adjusted, and productive citizen, it must develop a vehicle to methodically determine the changing needs of society, and give valid results with which decision makers can change the internal functions of education" (7, p. 1).

The first step toward this goal is developing a standard definition of need on which to base needs assessment models.

Needs Assessment Definitions and Models

It has been said that training programs should be a response to a need rather than a reaction to a problem (38, p. 9-1). Yet, initially defining what constitutes that need seems to be a major issue for the training industry.

There is widespread discussion among training and development professionals concerning the definitions of need and needs assessment. Pennington best summarized this confusion by quoting from several major authors:

Needs assessment as a basis for developing education activities for adults has been called a difficult process surrounded by fuzzy thinking, the most persistent shibboleth in the rhetoric of adult education program planning, the most ludicrous spectacle in evaluation, the all-important first step in program development, and the bridge between recognizing a need and deciding what to do about it (40, p. 1)

Close examination of the literature reveals an equal amount of diversity concerning needs assessments. Most startling is the absence of a concise definition of need and/or needs assessment. Much of the resulting confusion concerning needs assessment can be attributed to this lack of a standard definition.

Sarthory approaches this problem by noting that,

Need is often used as a verb in the sense of 'this school district needs differentiated staffing'. A need is not a desire or wish but rather a quantifiable, measurable gap in performance, attitude or achievement between the ideal and the real. Thus, the correct use of need is as a noun (45, p. 24)

Sarthory continues with this approach, explaining that additional confusion is caused by using the word "need" synonymously with "goal." Other authors have offered like opinions when distinguishing between the words "need" and "want." When asked to describe their present needs, the natural tendency for most people is to list their wants or desires (30, p. 15). According to Kuh, this approach to defining needs presents a major problem as "wants do not necessarily represent needs" (31, p. 4). Cognetta

expresses a further interest in distinguishing between "concern" and "need," noting that not all concerns are supported by facts and do not necessarily reflect true needs (9, p. 1).

In an effort to offer a more precise definition of needs assessment, many authors have attempted to develop their own models to assess needs based on the various definitions of need. As with need definitions, numerous models of needs assessment are available, each offering individualized solutions to specific situations. Of the various models/definitions of needs assessments, the most popular one involves what is commonly referred to as the discrepancy model. A multitude of approaches are built around this concept.

In his own survey of the needs assessment literature, Pennington (40, p. 5-6) chose to group the various types of models into clusters, one of which involved the system discrepancy cluster. Models included in this cluster attempt to define program deficiencies and then develop programs based on prioritization of the identified deficiencies. Price's work in this area closely resembles that of Pennington in identifying a similar deficiency cluster of needs assessment models (41, p. 26-27). More recently, Stufflebeam has attempted to categorize the various definitions of needs assessment models and identify advantages and disadvantages of each. He

acknowledged the discrepancy view as the most widely used approach. According to Stufflebeam, advantages of this approach include its widespread acceptance by administrators and its adaptability to existing norm-referenced and criterion-referenced tests. Stufflebeam lists disadvantages of the discrepancy model as (1) concentrating needs assessments on those areas where tests are readily available, (2) oversimplifying the problem, and (3) reducing needs assessments to a simplistic mechanical process (51, p. 5).

Kaufman is most widely recognized as the major author of the discrepancy model, and while Kaufman himself has used several variations on his definition of needs assessment, they ultimately include the same factors. Kaufman's definition, based on his discrepancy model, is:

Needs assessment is the process of determining gaps between "what is" and "what should be," placing the gaps in priority order, and selecting gaps of the highest priority for resolution. Needs, then, are gaps; needs assessment is the formal process for identifying, justifying, and then selecting needs for closure (23, p. 53).

Supporting the discrepancy model, many other authors have chosen to utilize Kaufman's definition of needs assessment in conjunction with various discrepancy models. Delamere notes that "needs assessment is a formal analysis that reveals and documents discrepancies or "gaps" between current results and desired results" (11,

p. 337). After reviewing the various approaches to defining needs assessment, Pennington chose the discrepancy model in defining need "as a gap between a current set of circumstances and some changed or desirable set of circumstances" (40, p. 2). Burton and Merrill also use the discrepancy definition, defining needs assessment as "a systematic process for determining goals, identifying discrepancies between goals and the status quo, and establishing priorities for action" (6, p. 21).

In keeping with the discrepancy approach, Anderson and Ball acknowledge that "the most usual definition of need is a 'condition in which there is a discrepancy between an acceptable state of affairs and an observed state of affairs'" (2, p. 19). Knox also concurs with the discrepancy definition by noting he thinks of needs "as a gap between a present, or initial, or existing set of circumstances and some changed set of circumstances" (29, p. 2). Cognetta also uses the discrepancy concept of needs assessment in his definition. He explains needs assessment as "a process for obtaining and analyzing information for use in making decisions. For purposes of education planning, a need grows out of a documented discrepancy between 'what is' (existing condition) and 'what ought to be' (desired condition) in areas which are of concern to the people affected" (9, p. 1).

Originally, Lee perhaps understated his view of needs assessment by merely referring to it as a "process by

which the unfulfilled education requirements of a population of students are identified" (32, p. 28). Yet, he later bases his needs assessment model on the following discrepancy definition: "A basic educational needs assessment model is one that compares what is desired, or should be, with what now exists, or is being accomplished. The discrepancy between these two states of affairs can be considered the existing educational needs" (32, p. 28).

And while supporting the discrepancy definition of needs assessment, Eastman goes a step further by noting that individual value systems must be considered an essential part of any needs definition (12, p. 3). Like Eastman, Price also finds it useful to think of a need as "a gap between a current set of circumstances and some changed or more desirable set of circumstances, which can be described in terms of proficiency (knowledge, skills, attitudes), performance or situation" (41, p. 25). He also notes the importance of establishing standards against which described needs can be compared.

However, some authors disagree with the discrepancy model altogether. Scriven noted that he formerly supported the discrepancy model, but has since found it to be lacking many necessary components of needs assessments.

Is a need a discrepancy between the actual and the ideal . . . ? No, because we often need to improve and know how to, without knowing what the ideal would be like (46, p. 25).

Scriven and Roth later reiterate this point, further pointing out that a discrepancy definition fails to consider the difference between "needs" and "wants." They note that "wanting is a condition that people are by definition aware of, while in the case of needing, they may not" (47, p. 2).

To supplement the definition of needs assessment, Scriven and Roth offer the following approach in their attempt to concisely define this term:

'A needs X' means A is or would be in an unsatisfactory condition without X in a particular respect, and would or does significantly benefit from X in that respect; thereby moving towards or achieving but not surpassing a satisfactory condition in this respect (47, p. 3).

Other authors have also found problems inherent in the discrepancy definition. Kuh notes, "the discrepancy definition has the potential to distort the validity and, therefore, the usefulness of the results. The term 'need' when equated with a gap or discrepancy often connotes negativism or the fact that something is missing. In reality, needs may exist without a gap being apparent" (31, p. 5). Kuh continues to note that needs based on the discrepancy definition often emphasize incremental needs (those needs that are already being met on some level but perhaps merely require more attention) while failing to consider if the necessary resources are available to meet those needs. Kuh then offers his definition of need based

on his findings. Needs are "determined through a democratic process whereby need is defined as a change desired by a majority of some reference group" (31, p. 4). This definition introduces the democratic model of needs assessment.

Pennington identified the democratic model in his review of needs assessment literature (40, p. 6). This model involves interactive and collaborative efforts using nomination and voting techniques to identify needs. Stufflebeam identified the democratic view in which need is defined as "a change or direction desired by a majority of some reference group" (51, p. 5). This process proves advantageous in that it has high public relations value, it considers a wide range of variables, it involves many people in the goal-setting process, it provides useful information concerning the importance of needs, and it is easy to apply. Yet Stufflebeam also concluded that the democratic view confuses needs with preferences, depends on a highly informed group, and confounds needs determinations with cost and comfort considerations. Pennington (40, p. 6) and Price (41, p. 27) also note problems with the democratic model in that reducing dissidence in the population and waiting for majority approval tends to impede the progress of any needs assessment effort.

Another needs assessment model identified by several authors is the analytic model. Pennington defines this as a "direction in which improvement would occur, given information about the status of a person or a program. It places a premium on informed judgement and systematic problem solving" (40, p. 6). Price further notes that this approach "focuses on improvements rather than remediation and does not require advance statements of standards or success criteria" (41, p. 27). Stufflebeam identified the analytic view as one in which "a need is described as the direction in which improvement can be predicted to occur, given information about current status" (51, p. 8). According to Stufflebeam, this approach focuses on future trends and requires systematic analysis of problems and issues. He sees advantages to this view in that it requires a systematic approach to problem solving, it focuses on improvement as opposed to remedies, and it uses a full and complete description of needs. Stufflebeam lists disadvantages to the analytic model in that it requires highly skilled personnel and it is an abstract concept that may be difficult to conceptualize (51, p. 8).

Pennington identified a fourth model of needs assessment as the diagnostic model. This may also be referred to as the medical model. In this model Pennington defines need as "something whose absence or

deficiency proves harmful" (40, p. 27). For example, a need is identified by observing what happens when a subject is deprived of a resource. Then need projections are made based on what would happen if the subject had that resource. The diagnostic approach searches for both met and unmet needs and then uses knowledge and logic to determine which deprivations would prove harmful. Stufflebeam also identified the diagnostic approach and defined need in this model as "something whose absence or deficiency proves harmful or whose presence is beneficial" (51, p. 8). Stufflebeam's example of this view would be to test a hearing-impaired child with and without a hearing aid to determine the degree of benefit resulting from the hearing aid. According to Stufflebeam, advantages to this approach are that it assumes that survival needs will not be overlooked, it uses logic and research to determine and describe any deficiencies that may prove harmful, and it provides for the identification of met and unmet needs. Stufflebeam also notes that disadvantages to the diagnostic view are that it concentrates on basic survival needs to the exclusion of higher order needs, it is highly subjective in practice since research has proved lacking in determining effects of educational deprivation, and it is based on the assumption that some needs are absolute.

Pennington and Price identified a fifth model originally described by McKinley (35) called the self-fulfillment model. This model includes two types of approaches to needs assessment, random and selective models. Pennington explains that random models "aim at discovering those needs (usually defined as interests or wants) of a large segment of the population that are potent enough to attract people to educational activities and make a program financially self-supporting" (40, p. 5). These models are geared toward individual rather than community needs. Pennington further explains that selective models focus on the presumed needs of a known segment of the population such as professionals, the underemployed, or the aged (30, p. 5). Problems with these approaches are lack of precision in measurement and bias on the part of the planner or institution in analyzing the results. These self-fulfillment models also promote the tendency to create and maintain a specific market rather than focus efforts on actual learning needs.

Individual appraisal is identified by Pennington as an additional approach to needs assessment (40, p. 5). In this model, individual learners determine their own learning needs either collaboratively (with the assistance of others) or noncollaboratively (where learners use assessment techniques to measure their own learning needs). Lack of insight into the essentials of training

needs is an obvious problem with this approach to needs assessment. Creating initiative in learners to pursue this approach to needs definition also presents an obstacle to using this method successfully.

Burton and Merrill took a different approach toward defining needs from a sociological point of view (6, p. 22-24). The types of needs according to these authors are described as follows:

- (1) Normative Needs: A normative need is present when an individual or group has less than the established standard or performs below the established average. Determining what is the norm is an inherent problem with the approach.
- (2) Felt Needs: Felt need is synonymous with want. This approach is similar to the democratic model in that it involves asking people what they want. As expressed earlier, wants are easily confused with needs and may present problems with this theory.
- (3) Expressed Need or Demand: An expressed need is based on the theory that if people really need something they will create a demand for it. For example, if more college students sign up for a course than there are seats available, there exists a need to create more sections of that course. The problem comes in determining if the

reason the course is so popular is because of the content or due to outdated curriculum requirements.

- (4) Comparative Need: A comparative need exists if one group lacks a service that is available to a similar group. However, this theory neglects to consider that one group may have more need for a particular service than the other group.
- (5) Anticipated or Future Needs: Anticipated needs concern projected demands of the future. Lack of this type of needs assessment is what creates obsolete programs (or schools, or roads) even before they are completed. Yet, this type of planning presents problems in that forecasting is a difficult skill to acquire.

As evidenced by the above statements, and as stated by Stufflebeam, "there is no commonly accepted definition of need" (51, p. 11). But, regardless of which model of needs assessments is used, the first step is for the assessor to determine which definition is the guiding influence for a particular needs assessment. This will have a significant impact on how the study is to be conducted. After that, selecting the needs assessment method will be a much simpler process.

Methods of Needs Assessments

Once the decision has been made to conduct a needs assessment, and having determined which model and/or definition will be the guiding influence, the next step is to select the method for gathering the data. Choosing the best method is important in order to ensure the assessment provides valid and reliable data at a reasonable cost. This step, in itself, can be a difficult project as there are numerous methods which can be utilized to gather the data. Tracey remarks that "the rather large number of needs assessment methods available to the training manager attests to the fact that needs assessment has received a great deal of theoretical attention if not practical usage" (52, p. 62).

To facilitate this process, Tracey developed the following list of needs assessment methods (52, pp. 62-72).

- **Advisory Committees:** Committees from all aspects of the organization are convened to identify, discuss, and set priorities for training needs.
- **Analyzing Plans and Forecasts:** A comprehensive survey is designed based on organizational goals and objectives, and is developed in light of future demographic, economic, political, and technical conditions as well as in consideration of future plans, programs and products that will be marketed in the next five years (or greater).

According to Tracey, this is considered a major step in the needs assessment process.

- **Assessment Centers:** Selected employees participate in various assessment techniques (role playing, simulations, decision-making exercises, group discussions) which are then evaluated by trained evaluators. This method is intended to reveal employee weaknesses and highlight those employees ready for promotability and/or further job development.
- **Attitude Surveys:** These surveys provide insights into general areas of employee satisfaction and dissatisfaction. They also foster employee morale and motivation, improve communication and demonstrate management's interest in employees' attitudes and concerns. Tracey is quick to point out that these surveys do not necessarily offer a solid conclusions of training needs, but rather provide indicators of training needs.
- **Climate Surveys:** Similar to Attitude Surveys, climate surveys attempt to measure employee attitudes to factors that are considered to be important in establishing the climate of the organization.
- **Critical Incident Surveys:** Participants in this type of survey are asked to identify and document

in some detail what went wrong with certain business functions considered to be critical to the organization.

- **Employee Interviews:** These are typically used to obtain employees' perceptions of work problems and identify areas and skills for which employees believe they need training. Although time consuming, employee interviews are considered to be a valuable method for assessing needs.
- **Group Discussions:** This method involves holding a series of employee meetings for the purpose of identifying specific problems, analyzing probable causes, and determining areas in which training can provide either the solution or a part of the solution to the problem.
- **Exit Interviews:** This type of interview may be used to gather information about training needs and problems, however, it is considered by Tracey to have serious shortcomings in providing useful data due to the possibility of belligerent or angry ex-employees. Misleading data may result.
- **Job Description and Applicant Specification Analysis:** In this method, job descriptions, applications, résumés, interview documentation, personal history statements, and other personnel data are reviewed for discrepancies between job

requirements and present employees' knowledge and skills can be identified. Training programs offer one possible solution to this type of discrepancy

- Management Requests: Management feedback is solicited to offer recommendations for possible training programs.
- Needs Inventories: This approach involves the development, administration, tabulation and analysis of an instrument designed to assess skills and abilities of a specific group of workers. Ratings are obtained from the employee and the supervisor resulting in a rank ordering of perceived important job skills.
- Nominal Group Technique: This approach involves a structured group meeting conducted by a leader for the purpose of developing a list of problems that need to be addressed. A question is posed to the group, group members individually record their ideas on paper, then each member offers an idea which is recorded on a flip chart in order to construct a master list of issues. Open discussion on each item is held and all items are eventually rated according to importance by the group members. Tracey considers this method extremely valuable in assessing training needs.

- **Modified Nominal Group Techniques:** Similar to Nominal Group Techniques, this method also produces a list of perceived problem areas developed by a selected group of employees. The rating of the issues, however, are determined by all employees in that aspect of the organization, not just by the select group. Action plans are then developed by the smaller groups.
- **Observations of Behavior:** This method involves direct observation (by the trainer or the manager) of employees' performance either in actual job situations or simulated exercises for the purpose of identifying performance deficiencies that could be corrected by training.
- **Outside Surveys:** In certain situations, it may be preferable to go outside the organization to get a different perspective on training and development needs. In such cases, customers, dealers or other outside constituencies can be surveyed to gain insight into training deficiencies.
- **Performance Appraisals:** Job performance appraisals can be used to provide information concerning training needs by analyzing discrepancies between present job performance and desired job performance.

- Performance Documents and Records: Additional information concerning training needs/job deficiencies can be garnered from performance records such as records of absenteeism, employee suggestions, overtime, sick leave, tardiness, return on investment, quality control, training audits, operating costs, and other types of organizational records. This type of data only implies a potential problem, yet it can still be useful when used in combination with other methods.
- Product Evaluation: This method of assessment involves collecting existing documentation in areas such as writing reports or correspondence which is then analyzed for deficiencies that could be addressed through training programs.
- Questionnaires: Probably the most popular method of needs assessment, this process involves the construction and administration of a questionnaire to survey employee skills, behaviors, and/or attitudes. Questionnaires provide timely, valuable information, involve employees in the assessment process, and are relatively inexpensive to use.
- Skills Tests: These tests can be developed and administered to employees at all levels of the

organization in order to identify skills inadequacies on which future training programs can be based.

In their assessment of the numerous needs assessment methods available to training and development professionals, Newstrom and Lilyquist included the majority of the above listed techniques (39). No additional methods were included by these authors. By reviewing the training literature on needs assessment methods, Newstrom and Lilyquist arrived at four basic conclusions concerning this process. First, and foremost, they concluded that needs analysis is of the utmost importance. Second, many useful techniques have been developed that proved successful in very specific situations. Third, those methods that produce objective data are greatly preferred over subjective methods for making decisions. Fourth, involving prospective trainees in the assessment is more likely to produce training solutions that are acceptable to the trainees. But Newstrom and Lilyquist also noted that "despite such guidelines for the practice of needs analysis, there has been a critical lack of comparative assessments of the various methods available" (39, p. 52).

Morrison also developed a list of various ways to determine training needs (38, p. 9-2). He then divided the total list into three broad categories. The first

group was Survey Techniques which included methods such as education-needs surveys, employee attitude surveys, and problem surveys. Also included in this group was the Delphi technique which involves systematically soliciting, collecting, evaluating and tabulating expert opinions. According to Morrison, this technique is best used in forecasting future training needs in relation to organizational long-range plans.

The second group of needs assessment methods developed by Morrison are under the category of Organizational Audits. Techniques in this group include the utilization of efficiency and production records, personnel records, functional audits, and skills inventories to determine training needs (38, p. 9-5).

Individual Needs Determinations comprise the third group of Morrison's needs assessment methods (38, p. 9-7). Included in this group are methods such as personal interviews, training needs questionnaires, needs-analysis rating methods, achievement testing, and performance appraisal data. To gather information from the assessment vehicles, Morrison suggests using questionnaires, simulations and games, and team versus individual interactions (similar to nominal group techniques mentioned above).

Steadham (50) also developed a list of various needs assessment methods. In addition to the methods mentioned

above, he included the media as another source of information. According to Steadham, studying professional journals, legislative news, trade magazines and/or in-house publications offers a readily available source of current data that is apt to have been reviewed by potential trainees. Steadham also notes, however, that the key to choosing a successful needs assessment method is establishing a basis for that selection. "The key to the process is being explicit about selection criteria. If the criteria are not clearly spelled out, there is the risk of skipping over one or more important considerations" (50, p. 56). To facilitate this process, Steadham developed the following checklist of selection criteria for choosing the best needs assessment method:

- What resources are required and available for the needs assessment?
- To what degree will the needs assessment consultant and the client system be involved in designing, administering, and collecting the data?
- What is to be gained by having the client system share responsibility for collecting the data?
- How "healthy" is the client system? Are there communication problems that would preclude using certain collections methods (such as group discussion)?
- Who is to be involved in collecting the data?

- What does the client system intend to do with the needs assessment?
- Do decision-makers at the client system prefer one data collection method over another?
- To what extent does the client system already know their needs?
- How much time-lag can there be between collecting the data and taking action?
- What types of "needs" are to be discovered?
- What degree of reliability or validity is necessary in order for the client system to act on the data?
- Does the data have to be confidential or anonymous?
- What is the level of trust between the client system and the consultant in the needs assessment effort?
- How comfortable is the needs assessment consultant with a particular method?

In a study of needs assessment components, Barbulesco (3, p. 79-80) concluded there are eleven criteria that constitute a checklist for evaluating a systematic plan for conducting a needs assessment. Those criteria are:

- Is the needs assessment designed to identify critical educational needs and make useful recommendations to planners and decision makers?

- Does the needs assessment relate to a long-range comprehensive plan?
- Is the procedure simple and easily administered?
- Is the cost for implementing the needs assessment reasonable?
- Are opportunities provided for various groups and individuals to become involved in the needs assessment process?
- Are data-gathering instruments appropriate and comprehensive?
- Is it clear what kinds of data are being sought?
- Does the needs assessment model provide for validity and reliability of the instruments?
- Does the procedure provide a method or criterion by which identified needs can be ranked?
- Has the procedure taken into account needs assessed in similar settings as well as previous needs studies conducted in the same setting?
- Does the procedure provide for some positive initial action to address needs identified in the study?

Additional criteria for determining needs assessment methods have been developed by Gepson, Martinko and Belina and are listed below (14, p. 78-83).

- Participation: All members and levels of the organization are involved.

- Inexpensive: Does not use expensive surveys, coding techniques, or consulting services.
- Efficient: Can be conducted on company time but does not require more than two to four hours per employee.
- Ownership: Procedure is designed so that each employee feels that problems identified represent their input and key concerns.
- Conceptual Clarity: To establish ownership and feelings of real participation, the procedure must be easily understood by all employees and managers involved.
- Problem Differentiation: The procedure must differentiate among problems and place them in classifications indicative of their origins and possible solutions.
- Affective states: The procedure must result in a 'reading' on how the employees feel about the organization and its problems.

From a somewhat different angle, Newstrom and Lilyquist provided their own list of criteria for differentiating among needs assessment methods (39, p. 54-55).

- Employee Involvement: Employees have both a legitimate need to know and a desire to know why they have been selected for training.

- **Management Involvement:** By involving supervisors in the needs analysis process, they are more likely to support the training program by encouraging attendance and providing an opportunity to apply the new knowledge.
- **Time Required:** One dimension in needs assessment is the total time allotted to the process of collecting and analyzing data before a final report on high priority needs is due. Another dimension is the proportion of the trainer's work day that can be logically and productively be devoted to needs analysis. Finally, the amount of time required of the trainees, who cannot afford to be away from their jobs for extended periods of time, must be considered. Consequently, it is important for trainers to consider the time factor involved and select needs assessment methods that are brief and immediate, rather than those that are extended or require a large time investment.
- **Cost:** The element of cost should not be considered simplistically, but should be examined in the light of both the costs and benefits produced from the method used.
- **Relevance and Quantifiability:** During troubled economic times, corporate executives overseeing

the training function are predictably concerned about the rationality of training expenditures. Therefore, to the degree that information can be gathered that is directly relevant and quantifiable, these managers will likely be more receptive to the conclusions drawn from subjective sources.

Further advice is available when considering the multitude of needs assessment methods. Kay points out that it is very important to utilize more than one needs assessment method (27, p. 32). Additionally, Kay notes that "there is no prescription for needs assessment that will be applicable across every situation" (27, p. 29). Newstrom and Lilyquist support this advice and further point out that "there is no 'one best method' for the analysis of training needs" (39, p. 56). Their advice is to weigh the various criteria in terms of importance to the organization. Furthermore, Newstrom and Lilyquist note that,

There are numerous alternative methods that can be used for the assessment of training needs. Rather than relying upon historical precedent or arbitrary selection, trainers are encouraged to thoroughly investigate the pros and cons of each method in comparison to the selection criteria most important to them. (39, p. 56).

Steadham concludes that,

The process of matching a needs assessment strategy to a particular situation need not be haphazard nor overly technical. The practitioner will need first to

decide on his or her own checklist of criteria with which to appraise the assessment situation. Couple that situational appraisal with a working knowledge of basic assessment methods, and a structure is created that maximizes the chance of selecting an assessment strategy that works (50, p. 61).

Armed with a working definition of needs assessment and an awareness of the assorted models and methods available to the assessor, it is then time to explore the various approaches to the needs assessment process itself.

The Needs Assessment Process

Throughout the literature there are a number of approaches to the needs assessment process. Some of the authors use very broad categories of needs assessment methodology while others focus on more detailed needs assessment activities. It seems many authors have written their own approach to the needs assessment process, and while most of the procedures contain common elements, this has further contributed to the abundance of needs assessment literature and, more importantly, to the overwhelming confusion regarding needs assessments in general. For the purposes of this study, major needs assessment processes are outlined in this section.

As early as 1961, McCehee and Thayer described their three-fold approach to determining training requirements of an organization. Included in this approach were (1) organization analysis (determining where within the

organization training emphasis can and should be placed), (2) operations analysis (determining what should be the contents of training in terms of what an employee must do to perform a task, job, or assignment in an effective way), and (3) man analysis (determining what skills, knowledge, or attitudes an individual employee must develop if he is to perform the tasks which constitute his job in the organization) (34, p. 25).

More recently, Stufflebeam chose to relate his approach to the needs assessment process in five broad interrelated sets of activities. In this approach, he stresses that "these steps do not necessarily occur in a strict sequence since steps can be pursued simultaneously and because recycling will inevitably (and should) occur" (51, p. 16). These steps are outlined as follows:

- (1) Preparing to do a needs assessment. In this initial step, Stufflebeam focuses on two major activities: planning and communicating. The planning phase involves identification of the questions, participants, design, collection procedures, and analysis methods. The communications phase focuses on the exchange of information and the working relationship among all individuals and groups involved in the needs assessment.

- (2) Gathering desired needs assessment information. The second step of Stufflebeam's approach to needs assessment involves developing both general and detailed plans outlining how information is to be acquired, sources of that information, actual collection of the information and how the information is to be stored.
- (3) Analyzing the needs assessment information. The third step of this process includes sorting, counting and describing the data, interpretation of the findings and the resulting identification of needs. In this step, Stufflebeam stresses that "a statistical finding regardless of its objectivity and empirical basis, does not equal a need. A need is a resulting decision coming out of a process that should include the compilation and review of several bits of information that culminates in a judgment of what constitutes need" (51, p. 17).
- (4) Reporting needs assessment information. The fourth step of this process includes describing the needs assessment process and results in an accurate, timely understandable and useful way such that the audience will immediately understand the content. It is important, Stufflebeam notes, that the needs assessor have excellent communication skills.

- (5) Using and applying needs assessment information. This last phase of the needs assessment process depends on the purpose of the needs assessment itself according to Stufflebeam. Needs assessments done for planning purposes should incorporate the needs assessment results into the design of the planning process. If the needs assessment were conducted as part of program evaluation, then the results should be used in a before-and-after program analysis.

Within the context of these five steps, Stufflebeam goes on to outline details of activities to be accomplished during each phase. He summarizes his approach to the needs assessment process by noting that,

needs assessment is an ongoing, cyclical set of activities that is an integral part of the process of program development, implementation, and evaluation. . . . The needs assessment process is not assumed to be strictly linear. The sequence of activities is not fixed and activities may be repeated (51, p. 22).

Kaufman approaches needs assessments by designing and developing his own model. He refers to this model as the Organizational Elements Model (OEM) which he maintains offers a straightforward framework for determining needs (26, p. 60). In this model Kaufman defines a true need as a gap in results where results are identified by three elements: Outcomes (results in society), Outputs (results

an organization delivers to society), and Products (results an organization produces as it attempts to meet its aims and purposes). This model also consists of Inputs (gaps in resources and start-up conditions), and Processes (gaps in methods) which are referred to as Quasi-Needs as Kaufman does not consider them to indicate true needs (24, p. 613).

Initially Kaufman created a seven-step process to accomplish this task (23, p. 62-65). Using his discrepancy model, he developed an external and internal mode of needs assessment in which external needs assessments look at gaps between Outcomes while internal needs assessments seek to identify gaps in the elements of Inputs, Processes, Products, and Outputs. The seven-step process is useful for both of these categories according to Kaufman. These steps are briefly outlined below.

- (1) Identify what is. This step includes collecting, reducing and summarizing the data.
- (2) Identify what should be. This step is identical to Step 1 with the addition of future trends and situations.
- (3) Make a needs assessment matrix. This matrix should indicate what is and what should be for three partners: learners, implementers, and society or the community.

- (4) Reconcile any differences between the partners that might show up in the needs assessment matrix.
- (5) List the needs. In this step, a list is created of any gaps identified in Step 4.
- (6) Place the needs in priority order.
- (7) Select the needs for action. Kaufman notes that this step is usually based on available resources.

Later, Kaufman expanded on this 7-step model and created a more detailed version consisting of 18 steps toward a successful needs assessment (26, p. 157-165).

Briefly, these steps are:

- (1) Decide to plan. Included in this step is identifying the type of planning effort to be made, whether it is short-term planning, midterm planning, long-range planning, strategic planning, facilities planning, financial planning, etc.
- (2) Select planning frame. This would include choosing between a middle planning frame (which includes formal consideration of Inputs, Processes and Products), a comprehensive planning frame (including Inputs, Processes and Products as well as Outputs), or a holistic planning frame (including all the elements of Inputs, Processes, Products, Outputs and Outcomes).

- (3) Identify planning partners. This should include representatives from any groups included in the needs assessment.
- (4) Obtain planning partners' participation.
- (5) Obtain acceptance of the OEM framework. Kaufman stresses that it is important to obtain agreement on a common planning frame from all the planning partners.
- (6) Collect Needs data (internal and external). Each partner identifies needs based on what type of planning frame is chosen.
- (7) Place needs in priority order. The partners meet in groups to rank the needs according to what it costs to meet the Need and what it costs to ignore the Need.
- (8) Reconcile disagreements.
- (9) List problems for resolution. According to Kaufman, problems are needs selected for resolution. In this step Needs are formally listed in order to avoid future disagreements.
- (10) Obtain agreement of partners. Again the partners meet to make certain there is agreement on the results chosen. If there is disagreement, Steps 8 and 9 are repeated.
- (11) Determine Mission, Functions, and detailed performance requirements and identify possible

Methods and Means. During this step a Mission Profile, or Management Plan that identifies functions, is developed.

- (12) Reconcile constraints. This step is to review and reconsider those performance requirements identified in Step 11.
- (13) Select Methods-Means. This step is to determine the most effective and efficient means to get the job done.
- (14) Implement Methods-Means. In this step the plan is put into action.
- (15) Determine en route effectiveness. This step compares en route results with intentions. Using the Mission Profile as criteria, objectives are compared with results.
- (16) Review as (and if) required. Often this step is necessary to change Processes (and sometimes Objectives and Performance Requirements) to achieve required results.
- (17) Determine effectiveness and efficiency. This step involves making a summative evaluation to determine if the Mission Objectives were met. A resource analysis is also performed to determine if the results were cost effective.
- (18) Determine revision and continuation requirements. The summative evaluation is used

to determine which programs are successful and should be continued and which programs should be modified.

Kaufman views his Organizational Elements Model as a "holistic framework for planning that will allow you to define and achieve organizational as well as personal success. [He] defined Needs in terms of external, societal requirements, and then systematically and sensibly related organizational efforts and organizational results to achieving these positive societal results" (26, p. 166).

In a more generic approach, Barbulesco outlined general steps for conducting major needs assessments based on her survey of the literature (3, pp. 77-78). Included in this approach are the following activities:

- (1) Deciding to conduct a needs assessment.
- (2) Arranging for coordination of the needs assessment.
- (3) Specifying the purpose of the needs assessment.
- (4) Defining the scope of the needs assessment.
- (5) Assessing obstacles and restraints.
- (6) Informing and involving the community.
- (7) Identifying symptoms of broad need areas.
- (8) Identifying and selecting appropriate needs assessment techniques.
- (9) Setting criteria for measuring need.

- (10) Gathering needs data.
- (11) Summarizing the needs data.
- (12) Interpreting the data and identifying the needs.
- (13) Ranking identified needs.
- (14) Evaluating the study.
- (15) Reporting to the decision makers.
- (16) Implementing the results.

Barbulesco goes on to note, however, that "there is still much to be done in the conceptualization of needs assessment procedures. It would be inappropriate to list hard-and-fast rules for conducting a needs assessment study because procedures are too new and constantly evolving (3, p. 74).

Yet, in still another attempt to outline a successful approach to conducting a needs assessment, Burton and Merrill divide the process into four phases of activities. Phase One is to identify a broad range of possible goals. Goals should be defined in measurable terms and should include performance criteria. The main purpose of this phase is to identify the total range of goals without placing any priority or value on the goals.

During Phase Two the participants rank the goals in order of importance. Burton and Merrill strongly emphasize that this phase should include as many members of the community as would be affected by the needs assessment itself. The output of this phase should be a

list of goals ranked by order of importance representing a consensus of opinion among community participants.

Phase Three involves identifying discrepancies between expected and actual performance. This phase is composed of two parts: (a) determining current performance levels of the goals outlined in Phase Two, and (b) comparing the actual performance to the criterion levels established in the goals.

Phase Four involves setting priorities for action. Due to the subjective nature of this step, Burton and Merrill again emphasize the importance of community involvement. These authors further recommend using a two-fold approach to prioritizing the needs, basing the final outcome on the rankings of goals in Phase Two and also determining the magnitude of discrepancy between current performance and goal criteria. Additionally, Burton and Merrill note that cost, time factors, and the numbers of learners exhibiting the need may also be used in setting needs priorities.

In an effort to move away from the discrepancy needs assessment model, Kuh (31, p. 20) developed ten major steps in the needs assessment process. They are:

- (1) Establish a needs assessment planning team.
- (2) Identify the problem focus.
- (3) Develop an understanding of organizational context and obtain support from the target population.

- (4) Verify and refine the problem focus.
- (5) Determine if further information is needed and the establish three or more methods to collect and analyze the information.
- (6) Determine the resources to implement the plan.
- (7) Develop a more detailed plan based on the available resources.
- (8) Implement the needs assessment plan, making adjustments as necessary during this process.
- (9) Analyze the results of the needs assessment process.
- (10) Develop an action plan based on the analysis in step 9.

As mentioned earlier, many authors have developed countless numbers of approaches to the needs assessment process. Basically, all of the needs assessments include similar steps, as is evident in the previous citings from the major authors in this area. A summary needs assessment plan, based on the other authors (28, p. 1; 42, p. 1; 43, p. 1; 37, p. 1; 18, pp. 13; 27, p. 30; 48, p. 4; 32, p. 29-30; 54, p. 5) might include:

- State the purpose of the needs assessment.
- Select the participants.
- Identify the goals and objectives.
- Determine how to collect the information.
- Gather the data.

- Assess the degree to which the goals are being met. In the majority of cases, this step includes identifying any discrepancies between actual performance and desired performance.
- Prioritize the needs.
- Inform the public of the results.

Obviously, there is dissension among the ranks of training and development professionals concerning the various approaches to needs assessment. And with this variety of opinion, problems are inherent.

Problems Using Needs Assessments

As discussed earlier, the foremost problem with needs assessments concerns the lack of a standard definition of need. Many authors included this issue in their list of grievances pertaining to needs assessment. Stufflebeam stated it most simply. "There is no commonly accepted definition of need" (51, p. 11). Definitions of need throughout the literature can be misleading according to Lenning. He notes that "conceptions of need that are expressed in the literature are not consistent, and often they are vague and nonspecific (33, p. 10). More specifically, Scriven and Roth take exception with the traditional discrepancy definition of needs assessment. They cite the "principle weakness in this approach is that it appears to require that one know what the ideal state

is in order to determine a need" (47, p. 2). Finally, Sarthory observes considerable bewilderment on the subject of need definition. According to Sarthory, "this confusion is very widespread and constitutes an important inhibiting factor in the successful implementation of needs assessment. . . . This use of terminology reveals a serious misunderstanding of the nature of needs assessment" (45, p. 24).

Along these same lines, definition of needs assessment goal is a major problem with some studies according to Anderson. The broader the goal statement, the easier it is to gain consensus as to its purpose, but the harder it will be to determine if the needs assessment results ultimately met the original goal. Bender was also concerned with goal definition noting that "an institution should develop its own goals. The goals should come from the basic principles involved in the educational effort and they should reflect the institution's educational philosophy" (4, p. 21). Goal statements should not be determined by previous needs assessment efforts nor by survey of the general population according to Bender.

Citing the potential of a needs assessment to effect change and arouse political forces, Stufflebeam considers politics to be another problem to be addressed concerning needs assessment. He is careful to remind readers to approach needs assessment results in a careful and

balanced manner. If not carefully controlled, needs assessments can overly emphasize particular problems, unmet needs, or goals to the exclusion of others. Additionally, Stufflebeam notes that undue attention can be given to fads or other issues with high political value (51, p. 11).

Hoke is concerned that the needs assessment process may unintentionally raise the expectations of the target audience to expect subsequent and immediate action based on the results of the needs assessment. According to Hoke, "one of the implicit assumptions underlying needs assessments is the belief that action will be taken on the basis of data collected, i.e., 'something' will happen . . ." (17, p. 39). Thus, linking the results of the needs assessment to eventual programs should be undertaken with extreme care and consideration.

Data interpretation and analysis are areas of concern for several authors. Cross remarks that a great deal of effort is spent in selecting target groups or designing questionnaires to be used in the needs assessment. "We have spent considerably more time and money collecting the data than interpreting and using it" (10, p. 199). Like concern is shown by Hoke who notes that "the interpretation of such data is extremely delicate and ridden with social and political implications" (17, p. 40). Stufflebeam concurs with these authors concerning

the analysis of needs assessment data. "Guidelines for the criteria, standards, or processes that are adequate or effective for making judgments about needs are ultimately subjective (51, p. 10). Oftentimes the standards on which needs assessment are based are arbitrarily established and may prove difficult to use in practical application. Along these lines, Guba and Lincoln are concerned with the subjective elements of needs assessment, noting that "it is paramount to recognize the role that values play in needs assessment" (15, p. 319). Clearly stating the values on which the needs assessment is based must be an integral part of any worthwhile effort.

From a different angle, Witkin expresses a degree of frustration with the lack of research on needs assessment instruments, methods and models. Witkin mentions that there has been "almost no research on the technical aspects of needs assessment, and little attempt to evaluate for reliability and validity (54, p. 3). According to Witkin, "there has been no empirical demonstration of the superiority of one approach over another, and little effort to discover whether the assessment has revealed previously unknown needs or simply reflects somewhat superficial perceptions of current conditions" (54, p. 3). And while models with more complex procedures have been attempted, Witkin observes that they are not as popular as simple goal-rating surveys

or group card-sort activities and therefore are not widely used.

Kuh goes so far as to list multiple inherent weaknesses in needs assessment procedures that can ultimately undermine the usefulness of their results (30, pp. 16-17; 31, pp. 9-15). In his opinion, these problems are:

- (1) The real reasons for the needs assessment are not readily apparent.
- (2) The needs assessment is planned by one person or a small number of individuals representing only a few of the target groups.
- (3) The target audiences are inappropriately selected or inaccurately described.
- (4) A strength analysis is not performed. Needs assessments should focus on program strengths as well as weaknesses.
- (5) The needs assessment focuses exclusively on individuals rather than including an assessment of the organization within which they work.
- (6) The definition of need is based entirely on a discrepancy formula.
- (7) A single criterion or method is used to determine need.
- (8) The information about the assessment is available to the community on a limited basis.

- (9) Political pressure alone is allowed to determine need.
- (10) Needs are prioritized by a rating or rank ordering process. Apportioning is preferred to simple rank ordering.
- (11) Positive and negative side effects are overlooked.
- (12) Needs assessments must be completed before planning can begin.
- (13) Needs assessment is viewed as an end in itself.

Finally, Tracey approaches the problems of needs assessment in a more positive manner, developing a summary list of pitfalls which should be avoided by any cognizant needs assessor (52, p. 80). His suggestions are:

- Conduct needs analysis on a regular, proactive basis rather than on a reactive, crisis basis.
- Integrate needs analysis data with enterprise planning data.
- Use needs assessment approaches that take into account the realities of organization politics.
- Distinguish clearly between what the organization says it wants and what it really needs.
- Distinguish clearly between organization, group, individual and job needs.
- Avoid using staff perceptions or currently popular training strategies or fads to define training and development needs.

- Consult line managers and staff officers regularly on organization, training, and development needs.

Summary

This review of the literature found general agreement among the various authors that needs assessments are necessary to a successful training and development operation. Many authors repeatedly note that, prior to beginning any new program, it is essential a needs assessment be conducted to ensure that organizational goals are considered and resources are not wasted. Too often training programs are established as stop-gap measures with no relationship to the objectives and needs of the organization, thus leading to costly, ineffective training programs.

However, beyond agreement that needs assessments are necessary, there is much dissent over how the process should be accomplished. The literature reveals that most authors are unable to even agree upon a standard definition of need. Various models have been developed using a multiplicity of components and methods. At this stage in the evolution of the needs assessments process, a great deal has been written concerning why and how needs assessments should be conducted.

Yet, little research has been done to date on the actual utilization of needs assessments. Chapter III will present research methods and procedures for the study of the utilization of needs assessments by training and development professionals in a large metropolitan training association.

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CHAPTER III

PROCEDURES FOR COLLECTING AND ANALYZING DATA

Introduction

This chapter describes the major elements necessary to collect and analyze the data for this study of the utilization of needs assessments among training and development professionals. The following headings are used: (1) the population, (2) construction of the preliminary survey instrument, (3) selection of a panel of judges, (4) evaluation of the preliminary survey instrument, (5) selection of a pilot test group, (6) procedures for collecting the data, (7) procedures for analyzing the data, and (8) summary.

The Population

The population of this study was the Dallas Chapter of the American Society for Training and Development (ASTD). Permission to survey this group was obtained from the Board of Directors of the Dallas Chapter of ASTD who also provided the group's membership directory and a set of mailing labels. At the time of the survey, the Dallas Chapter of ASTD consisted of 578 members. A census was taken of the population.

Construction of the Preliminary Survey Instrument

The preliminary survey instrument was prepared after an extensive review of the literature. The initial instrument consisted of two parts. Part A consisted of twenty-five needs assessment activities, each with two scales ranging from 0 to 4. The first scale assessed the respondent's perceived experience in needs assessment and used the following ratings: (0) No Experience, (1) Used Infrequently, (2) Used Moderately, (3) Used Frequently, (4) Used Very Frequently. The second scale was used to determine the degree of perceived importance the respondent placed on the various needs assessment activities. The following ratings were employed: (0) No Importance, (1) Minor Importance, (2) Moderate Importance, (3) Important, (4) Significant Importance.

Part B consisted of respondent information and included such demographic data as age, sex, and education. Additional data derived included types of formal training in needs assessment, the number of needs assessment projects used during the past year and during the respondent's entire career, the industry of the respondent, current employment status, number of employees in the respondent's employer organization, and personal annual income. Also included in Part B were open-ended questions soliciting respondent information concerning (1)

major issues in training and development, (2) suggestions for improvement of needs assessment in training and development, and (3) general comments which the respondent cared to make.

Selection of the Panel of Judges

A panel of judges was selected to evaluate the preliminary survey instrument. These judges were selected based on their experience in the fields of (a) training and development, (b) human resource development, and (c) higher education. These criteria used to select the panel of judges closely resembled the composition of the population; however, none of the judges were included in the population. The panel of six judges was composed of a Training Specialist from Electronic Data Systems (EDS), a supervisor in the Corporate Recruiting Division of EDS, an executive from Drake Beam Morin, Inc. (a Dallas consulting firm), a self-employed consultant in the development of educational documentation for computer programs, a manager in the Planning Department of the Corporate Education division of Wang Laboratories, Inc., and an instructor at Mountain View Community College.

Evaluation of the Preliminary Survey Instrument

The preliminary survey instrument was presented to the judges to obtain their perceptions concerning the validity

of the items. Each judge received a copy of the preliminary questionnaire, a copy of the research questions, a cover letter (Appendix A), a rating sheet (Appendix B), and a pre-addressed stamped return envelope.

Judges were asked to review each question to determine whether it would elicit the information required for the study. Items could be rated as "Acceptable," "Unacceptable," or "Don't Know." In order to retain an item, agreement from four of the six judges was required. Also, judges were asked to determine (1) whether at least one item was present for each measurable objective, (2) whether the language of each item was easily understood, and (3) whether the arrangement of the items was acceptable. For these three questions judges could choose either "Agree," "Disagree," or "Undecided."

The responses of the judges were used to make modifications to the survey instrument prior to mailing it to the pilot test group. At least four members of the panel of judges were in agreement on all items. All items were therefore retained. However, for clarification purposes, several minor grammatical changes were incorporated into the preliminary survey instrument.

Selection of a Pilot Test Group

A pilot group was employed to further ensure the validity of survey instrument. The Board of Directors of

the Fort Worth Chapter of ASTD was selected to participate in this study as the pilot group. Permission to utilize this group was obtained from the president of the Fort Worth Chapter of ASTD. Each member of this group received a cover letter (Appendix C), the preliminary questionnaire, and a return envelope. The pilot group received no special instructions other than those on the survey instrument. Fourteen individuals were surveyed; twelve questionnaires were returned. No logistical problems were encountered by the pilot group in taking the survey instrument. Only minor grammatical changes were made and, with such, the survey instrument was considered to be in its final format.

Procedures for Collecting the Data

The final survey instrument was administered to 578 members of the Dallas Chapter of ASTD. Each member received a cover letter (Appendix D), a letter in support of the study from the Vice President for Membership of ASTD (Appendix E), the final questionnaire (Appendix F), and a pre-addressed stamped return envelope. Approximately 14 days after the first mailing, a follow-up postcard (Appendix G) was mailed to the entire population.

Procedures for Analyzing the Data

To address each of the research questions presented in this study, the following procedures were used to analyze

the available data. All calculations were conducted by the North Texas State University Computing Center utilizing the Statistical Package for the Social Sciences.

Demographic profiles for the respondents were developed using descriptive statistics on the data gathered in Part B of the survey instrument. To address Research Questions 1, 2 and 3, frequencies and percentages were tabulated and reported. To answer Research Question 4, thirteen industry categories were developed based on those industries listed on the ASTD mailing list. Due to the high number of respondents in the category "Other," it was necessary to distribute these respondents among the other categories. Furthermore, to ensure the accuracy of statistical testing, the original thirteen industries were collapsed and redefined into six major industry groupings based on functional similarities of the original groups. A variable for total experience (EXPTOT) was then calculated by summing the responses under the Experience section of the survey instrument. Using these totals, an analysis of variance was calculated to compare the mean EXPTOT among the groups. In order to answer Research Question 5, a total importance variable (IMPTOT) was calculated by summing the responses under the Importance section of the survey instrument. Using these totals, an analysis of variance was calculated to compare the mean IMPTOT among the six industry groups.

To further examine the frequency of needs assessments, an analysis of variance was calculated using Item 6 in Part B to compare the mean number of needs assessments conducted during the year (NAYEAR) among the industry groups. To examine the number of needs assessments conducted during the respondents' career (Item 7 in Part B), a Kruskal-Wallis one-way analysis of variance was calculated to compare the mean ranks of the industry groups in relation to this item. A Pearson product moment correlation coefficient was conducted to examine the correlation between the respondents' overall Experience (EXPTOT) in needs assessment and the respondents' overall perceived Importance (IMPTOT) of the needs assessment process. A Spearman rank correlation coefficient was calculated for each item in Part A to determine the item-by-item relationship between experience in needs assessments and perceived importance of the needs assessment process.

The Sheffé post hoc test for significance was calculated for any research questions that produced a significant difference. Tables ranking the ten highest and the five lowest needs assessment activities for the categories Experience and Importance were also developed.

Summary

The focus for the collection and analysis of data in this study was the usage of needs assessments by training

and development professionals. The specific population of this study was the Dallas Chapter of the American Society of Training and Development. Questionnaires were distributed to 578 members of this group. The survey instrument used was developed by the researcher after an extensive review of the literature and evaluations by a panel of judges and a pilot test group. Respondents were surveyed as to their perceived usage of needs assessments as well as the perceived degree of importance they placed on needs assessment activities.

This chapter described in detail the procedures used in data collection and analysis. The following chapter includes the presentation and analysis of the data collected in this study.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

Introduction

This chapter contains the data collected from the population of this study as responses to the survey instrument. The format for the presentation of data begins with an overview of the population and survey instrument, followed by respondent information, demographic data, and the research questions as stated in Chapter I.

Population

The population consisted of 578 members of the Dallas Chapter of the American Society for Training and Development (ASTD). The survey instrument (Appendix F) was mailed to the entire population. Approximately two weeks after the initial mailing, a follow-up postcard (Appendix G) was mailed to the total population. Twenty-one surveys were returned as undeliverable. Therefore, out of 557 deliverable questionnaires, 165 members responded for a 29.62 per cent response rate. Five of the returned survey instruments were missing a

majority of responses and were considered unusable. Therefore, data from 160 questionnaires were included in the final sample for analyses.

The survey instrument was divided into two parts. Part A consisted of a dual-rating format that enabled two types of information to be collected for each needs assessment activity listed. The respondents were asked to rate their perceived experience with specific needs assessment activities as well as the perceived importance they placed on the same activities. Part B consisted of respondent information and demographic data.

Respondent Information and Demographic Data

Item 1 on Part B of the survey instrument identified the respondents according to their sex. Of the total 160 respondents, 85 were male and 75 were female. Data for this item are depicted in Table I.

TABLE I
SEX OF RESPONDENTS

Sex	Frequency	Percentage
Male	85	53.1
Female	<u>75</u>	<u>46.9</u>
Totals	160	100.0

Item 2 in Part B classified the respondents according to their age. Data relevant to this question are in Table II. Responses were received in each of the available categories with the majority of respondents in the 35-44 age group.

TABLE II
AGE OF RESPONDENTS

Age	Frequency	Percentage
Under 25	3	1.9
25-34	48	30.0
35-44	60	37.5
45-54	38	23.7
55-64	10	6.3
65 or Over	<u>1</u>	<u>0.6</u>
Total	160	100.0

Item 3 in Part B solicited information concerning the respondents' highest achieved level of education as well as the corresponding year of graduation. Out of 159 valid responses, a majority of respondents indicated the Master's degree as their highest level of education. Data related to this portion of Item 3 are in Table III.

There were 93 valid responses to this same item concerning the year of graduation corresponding to the

TABLE III
RESPONDENTS' HIGHEST LEVEL OF EDUCATION

Degree	Frequency	Percentage
High School	1	0.6
Associate's	3	1.9
Bachelor's	56	35.2
Master's	73	45.9
Doctorate	23	14.5
Other	<u>3</u>	<u>1.9</u>
Total	159	100.0

highest level of education achieved. The largest number of respondents listed the most recent graduation date between 1976 and 1986. Data related to this portion of Item 3 can be found in Table IV.

TABLE IV
RESPONDENTS' YEAR OF GRADUATION

Year	Frequency	Percentage
1937 - 1964	13	14.0
1965 - 1975	28	13.1
1976 - 1986	<u>52</u>	<u>55.9</u>
Total	93	100.0

Item 4 in Part B asked respondents to identify any types of formal training in needs assessments. Data supporting this item are in Table V. This was a multiple response item in that respondents were to select from a predetermined list all types of training that would apply. Therefore, more than one answer to this item was considered appropriate. While 23 respondents indicated they had no formal training in needs assessment, most of the respondents reported needs assessment training through on-the-job experience, closely followed by training in seminars and workshops. The twelve respondents selecting the option of "Other" indicated more informal types of training in needs assessments such as studying the literature, working with a consultant, and teaching themselves the needs assessment process.

TABLE V
RESPONDENTS' FORMAL TRAINING IN NEEDS ASSESSMENT

Type of Training	Frequency	Percentage
No Training	23	14.4
Seminars, Workshops	94	58.7
Formal Academic Courses	64	40.0
On-The-Job Training	108	67.5
Other	12	7.5

Item 5 in Part B asked the respondents to indicate their length of experience in Human Resources Development (HRD) or Training and Development (T&D). There were 160 valid responses for this question with the frequency rate increasing as the number of years experience increased. Data for this item can be found in Table VI.

TABLE VI
RESPONDENTS' LENGTH OF EXPERIENCE IN HUMAN RESOURCE
DEVELOPMENT OR TRAINING AND DEVELOPMENT

Years Experience	Frequency	Percentage
No Experience	2	1.2
Less than 1 Year	2	1.2
1 - 5 Years	44	27.5
6 - 10 Years	49	30.6
Over 10 Years	<u>63</u>	<u>39.4</u>
Total	160	100.0

Item 9 in Part B requested a "yes" or "no" response concerning whether or not the respondents were presently looking for a job in training and development. There were 155 valid responses for this item out of which 132 respondents indicated they were not currently looking for another job. Data for this item are in Table VII.

TABLE VII
 RESPONDENTS LOOKING FOR A JOB
 TRAINING AND DEVELOPMENT

Looking for a Job in T&D?	Frequency	Percentage
No	132	85.2
Yes	23	14.8
Total	155	100.0

Item 10 in Part B requested respondents to indicate their current employment status. Data for this item are listed in Table VIII. There were 132 respondents who

TABLE VIII
 RESPONDENTS' CURRENT EMPLOYMENT STATUS

Employment Status	Frequency	Percentage
Employed in T&D	132	83.5
Employed but not in T&D with previous T&D experience	20	12.7
Employed but not in T&D with no previous T&D experience	4	2.5
Unemployed with previous T&D experience	2	1.3
Unemployed with no previous experience in T&D	0	0.0
Never been employed	<u>0</u>	<u>0.0</u>
Total	158	100.0

indicated they were currently employed in training and development. It is interesting to note that this is the same number of respondents who are not presently looking for a job. No respondents selected the options of "unemployed with no previous experience in training and development," or "never employed."

For those employees who were employed, Item 11 Part B requested information concerning the number of employees in the respondents' organization. The category receiving the highest number of responses was between 1,000 and 9,999 employees. Data for this item are in Table IX.

TABLE IX
NUMBER OF EMPLOYEES IN RESPONDENTS' ORGANIZATION

Number of Employees	Frequency	Percentage
Less than 10	23	14.8
10 - 49	6	3.9
50 - 99	9	5.8
100 - 999	37	23.9
1,000 - 9,999	58	37.4
10,000 - 19,999	11	7.1
20,000 - 29,999	1	0.6
30,000 - 39,999	4	2.6
40,000 - 49,999	2	1.3
Over 50,000	4	2.6
Total	155	100.0

Item 12 Part B requested those respondents who were employed to indicate their current annual income. Table X contains the data for this item. The range for this item was from less than \$20,000 to \$70,000 or greater, covering all available categories. The salary category receiving the most responses was between \$30,000 and \$39,999.

TABLE X
RESPONDENT'S PERSONAL ANNUAL INCOME

Income	Frequency	Percentage
Less than \$20,000	6	4.1
\$20,000 - \$29,999	35	24.1
\$30,000 - \$39,999	45	31.0
\$40,000 - \$49,999	25	17.2
\$50,000 - \$59,999	15	10.3
\$60,000 - \$69,999	10	6.9
\$70,000 or greater	9	6.2
Total	145	100.0

Part B of the survey instrument also contained open-ended questions soliciting respondents' input in three additional areas. Item 13 asked the respondents to list their perception of the three major issues in training and development during the next five years. The issue receiving the highest number of responses was concern for new technology. This issue also included problems with computer-aided instruction (CAI) and computer-based training (CBT). Other issues highlighted by this question

were budgetary and accountability matters, management development, maintaining present skills and retraining for new skills, management support, and the tangible impact of training.

Item 14 in Part B asked the respondents for any suggestions for improvement concerning the use of needs assessment in training and development. Most respondents were concerned with simplifying the needs assessment process. Establishing needs assessment guidelines and educating managers on the needs assessment process were other suggestions mentioned by a number of respondents.

Item 15 in Part B asked the respondents to make any additional comments. The large majority of respondents did not answer this question.

Analysis of the Data

The Needs Assessment Questionnaire was developed by the researcher specifically for the purpose of this study. A test of reliability was computed for the scales Experience and Importance. The resulting Crombach alpha coefficient for Experience was .9362 while the Crombach alpha coefficient for Importance was .8760. The overall Crombach alpha coefficient was .9369. These results indicate in each instance a high internal consistency for this survey instrument.

Frequency of Use

Research Question One asked, "How frequently are needs assessments utilized by training and development professionals in the Dallas Chapter of the American Society for Training and Development (ASTD)?" Two items on the survey instrument addressed this research question. Item 6 in Part B of the questionnaire asked the respondent to state the number of needs assessments in which they participated during the past year. There were 153 valid responses to this question ranging from zero to 33 needs assessments attempted. The mean response to this question was 3.359, and the standard of deviation was 4.636.

Item 7 in Part B of the questionnaire asked the respondents to select a category indicating the number of needs assessments in which they had participated during their career. There were 156 valid responses to this question with the largest number of responses at opposite ends of the scale. Information and data relating to this item are found in Table XI.

Utilization of Needs Assessment Results

Research Question Two asked, "Are the results of the needs assessment used as a part of the overall planning process according to training and development professionals in the Dallas Chapter of ASTD?" Two items on the survey instrument addressed this research question.

TABLE XI
 NUMBER OF NEEDS ASSESSMENT CONDUCTED
 DURING THE RESPONDENTS' CAREER

Number of Needs Assessments	Frequency	Percentage
0 - 4	44	28.2
5 - 9	28	17.9
10 - 14	15	9.6
15 - 19	12	7.7
20 or greater	<u>57</u>	<u>36.5</u>
Total	156	100.0

Item 21 in Part A asked the respondents to rate how frequently their experience included using the results of the needs assessment as part of the long-range planning process. The respondents' answers were based on a five-point scale ranging from 0 (No Experience) to 4 (Used Very Frequently). The responses indicated high usage of needs assessment results with approximately 75 per cent of the respondents selecting the top three categories.

Pertinent data for this item are presented in Table XII.

To further address Research Question Two, Item 22 in Part A asked the respondents to rate how frequently their experience included using the results of the needs assessment as part of the short-range planning process.

TABLE XII
 RESPONDENTS' USAGE OF NEEDS ASSESSMENTS
 IN THE LONG-RANGE PLANNING PROCESS

Experience Rating	Frequency	Percentage
No Experience	14	8.8
Used Infrequently	27	17.0
Used Moderately	44	27.7
Used Frequently	41	25.8
Used Very Frequently	<u>33</u>	<u>20.8</u>
Total	159	100.0

Again, the respondents' answers were based on a five-point scale ranging from 0 (No Experience) to 4 (Used Very Frequently). Responses to this item were similar to Item 21 in that a high percentage of respondents (83.7 per cent) chose one of the top three categories on the scale. Data for this item are presented in Table XIII.

Development of Needs Assessment Models

Research Question Three asked, "Are the needs assessment models used by members of the Dallas Chapter of ASTD developed by staff within their organization or are external experts consulted?" Two questions on the survey instrument addressed this research question.

TABLE XIII
 RESPONDENTS' USAGE OF NEEDS ASSESSMENTS
 IN THE SHORT-RANGE PLANNING PROCESS

Experience Rating	Frequency	Percentage
No Experience	11	6.9
Used Infrequently	15	9.4
Used Moderately	33	20.8
Used Frequently	59	37.1
Used Very Frequently	<u>41</u>	<u>25.8</u>
Total	159	100.0

Item 13 in Part A asked the respondents to rate how frequently their experience included using in-house staff to develop the needs assessment model. The respondents' answers were based on a five-point scale ranging from 0 (No Experience) to 4 (Used Very Frequently). There were 157 valid responses to this question with the majority of respondents indicating they frequently used their own staff for needs assessment development. Data for this item are presented in Table XIV.

To further address Research Question Three, Item 13 in Part A asked the respondents to rate how frequently their experience included using external consultants to develop the needs assessment model. Again, the respondents'

TABLE XIV
 RESPONDENTS' USAGE OF IN-HOUSE STAFF TO
 DEVELOP THE NEEDS ASSESSMENT MODEL

Experience Rating	Frequency	Percentage
No Experience	17	10.8
Used Infrequently	21	13.4
Used Moderately	21	13.4
Used Frequently	50	31.8
Used Very Frequently	<u>48</u>	<u>30.6</u>
Total	157	100.0

answers were based on a five-point scale ranging from 0 (No Experience) to 4 (Used Very Frequently). There were 156 valid responses to this question. Most respondents indicated either they had no experience in this area or they infrequently used external consultants to develop needs assessment models. Pertinent data for this item are presented in Table XV.

Utilization of Needs Assessment by Industry

Research Question Four asked, "Are needs assessments utilized more frequently by training and development professionals in the Dallas Chapter of ASTD within a specific industry?" In order to address this question, 13 industry categories were developed based on those

TABLE XV
 RESPONDENTS' USAGE OF EXTERNAL CONSULTANTS TO
 DEVELOP THE NEEDS ASSESSMENT MODEL

Experience Rating	Frequency	Percentage
No Experience	65	41.7
Used Infrequently	49	31.4
Used Moderately	22	14.1
Used Frequently	10	6.4
Used Very Frequently	<u>10</u>	<u>6.4</u>
Total	156	100.0

industries listed on the ASTD mailing list. The list of these industries composed Item 8 in Part B of the survey instrument. Table XVI depicts the data for these thirteen industries.

TABLE XVI
 THIRTEEN ASTD INDUSTRY CATEGORIES

Industry Group	Frequency	Percentage
Banking	22	14.0
Consulting	15	9.6
Education	12	7.6
Energy	8	5.1
Government	7	4.5
High Technology/Computers	21	13.4
Hotel/Restaurant	8	5.1
Legal	0	0.0
Manufacturing	11	7.0
Medical	6	3.8
Retail	4	2.5
Service Organization	12	7.6
Other	<u>31</u>	<u>19.7</u>
Total	157	100.0

Due to the high number of respondents in the category "Other," it was necessary to distribute these respondents among the other categories. Furthermore, to ensure the accuracy of statistical testing, the original thirteen industries were collapsed and redefined into six major industry groupings. Data for the new industry groups are depicted in Table XVII.

TABLE XVII
COMBINED ASTD INDUSTRY GROUPS

Industry Group	Frequency	Percentage
Banking/Financial/Insurance	33	21.4
Consulting	18	11.7
Education/Government	20	13.0
Energy/Manufacturing	23	14.9
High Tech/Computers/Medical	29	18.8
Hotel/Restaurant/Service	<u>31</u>	<u>20.1</u>
Total	157	100.0

In order to answer Research Question Four, the variable for total experience (EXPTOT) was calculated by summing the responses under the Experience section of the survey instrument. Using these totals, an analysis of variance was calculated to compare the mean EXPTOT among the groups. This test yielded an F-value of 1.4356 with a probability of 0.2154. Therefore, the industry groups did not differ significantly in their usage of needs

assessments. The means and standard deviations for the industry groups are depicted in Table XVIII.

TABLE XVIII
COMPARISON OF RESPONDENTS' TOTAL EXPERIENCE
BY INDUSTRY GROUP

Industry Group	Mean	Standard Deviation
Banking/Financial/Insurance	53.7879	19.4145
Consulting	64.0667	20.0694
Education/Government	49.3500	19.4889
Energy/Manufacturing	56.5000	16.1066
High Tech/Computers/Medical	53.8214	18.0515
Hotel/Restaurant/Service	49.6154	20.1893

Perceived Importance of the Needs Assessment Process

Research Question Five asked, "What is the perceived importance of needs assessments to the organizational planning process according to the training and development professionals in the Dallas Chapter of ASTD?" In order to answer this question, a total importance variable (IMPTOT) was calculated by summing the responses under the Importance section of the survey instrument. Using these totals, an analysis of variance was calculated to compare the mean IMPTOT among the groups. This test yielded an F-value of 1.7118 with a probability of 0.1363. Therefore, the industry groups did not differ significantly in their perceived importance of the needs assessment process. The

means and standard deviations for the industry groups are depicted in Table XIX.

TABLE XIX
COMPARISON OF RESPONDENTS' PERCEIVED IMPORTANCE
OF THE NEEDS ASSESSMENT PROCESS
BY INDUSTRY GROUP

Industry Group	Mean	Standard Deviation
Banking/Financial/Insurance	72.8621	9.5496
Consulting	77.4375	10.6394
Education/Government	70.4500	9.2422
Energy/Manufacturing	69.7143	11.8454
High Tech/Computers/Medical	68.6000	12.6062
Hotel/Restaurant/Service	68.4231	13.6475

Additional Analysis of the Data

To further examine the data beyond the research questions, additional statistical analyses were performed. These tests are outlined below.

Frequency of Assessments by Industry

To examine the frequency of needs assessments among the six industries, an analysis of variance was calculated to compare the mean number of needs assessments conducted during the year (NAYEAR) among the industry groups. Using data from Item 6 in Part B of the survey instrument, this test yielded an F-value of 0.7494 with a probability of 0.5878. Therefore, the industry groups did not differ

significantly in relation to the number of needs assessments conducted during the past year. Data for this analysis are depicted in Table XX.

TABLE XX
COMPARISON OF NEEDS ASSESSMENTS CONDUCTED
DURING THE YEAR BY INDUSTRY GROUP

Industry Group	Mean	Standard Deviation
Banking/Financial/Insurance	2.2813	1.8706
Consulting	3.8000	3.1214
Education/Government	3.4500	4.8065
Energy/Manufacturing	4.5238	6.9615
High Tech/Computers/Medical	2.9333	4.4095
Hotel/Restaurant/Service	3.9032	5.6648

Furthermore, Item 7 in Part B addressed participation in the needs assessment process by asking the respondent to identify the number of needs assessments conducted during the respondents' career. To answer this item, respondents chose from predetermined categories ranging from "0-4" to "20 or over." To examine this item among the six industries, a Kruskal-Wallis one-way analysis of variance was calculated to compare the mean ranks of the industry groups in relation to the number of needs assessments conducted during the respondents' career. The associated Chi-square value was 9.9823 with a probability of 0.0757. Therefore, the industry groups did not differ

significantly in relation to the number of needs assessments conducted during the respondents' career.

Correlations of Experience with Importance

A Pearson product moment correlation coefficient was conducted to examine the correlation between the respondents' overall Experience (EXPTOT) in needs assessment and the respondents' overall perceived Importance (IMPTOT) of the needs assessment process. The Pearson product moment correlation coefficient was 0.4813 with a probability of < 0.001 . Therefore, there was a highly significant positive correlation between total experience in needs assessments and total perceived importance of the needs assessment process.

A Spearman rank correlation coefficient was calculated to determine the item-by-item relationship between experience in needs assessments and perceived importance of the needs assessment process. For every item in Part A of the survey instrument there was a highly significant positive correlation. Data for this test are in Table XXI. Additionally, a Pearson product moment correlation coefficient was conducted to verify the results of the Spearman test. The Pearson test yielded similar results in that there was a highly significant positive correlation for each item on the survey instrument.

Most Frequent and Most Valued
Assessment Activities

Table XXII contains a visual comparison between those activities used most frequently by the respondents and those activities perceived to have the most importance.

TABLE XXI
SPEARMAN RANK CORRELATION COEFFICIENT
EXPERIENCE WITH IMPORTANCE

Questions	N	Rho	p
1. ID a specific audience	159	.5027	.000
2. Design questionnaires	160	.4184	.000
3. ID needs through discussions	159	.6016	.000
4. ID needs through questionnaires	158	.4807	.000
5. ID needs through interviews	160	.6868	.000
6. ID needs through job analysis	159	.5214	.000
7. ID needs through publications	160	.5545	.000
8. ID needs through litigation	156	.5844	.000
9. ID needs through trends	158	.6585	.000
10. Analyze performance problems	158	.4564	.000
11. Determine cost effectiveness	158	.5041	.000
12. Establish skill/knowledge criteria	156	.5457	.000
13. Use staff to develop models	154	.5386	.000
14. Use consultants to develop models	153	.5334	.000
15. Obtain support from management	156	.4973	.000
16. Conduct statistical analysis	157	.4849	.000
17. Summarize results	155	.6408	.000
18. Prioritize identified needs	158	.5846	.000
19. Present results to management	158	.5378	.000
20. Revise programs based on results	158	.5046	.000
21. Use results in long-range plan	159	.4942	.000
22. Use results in short-range plan	159	.4963	.000
23. Design evaluation questionnaires	158	.6044	.000
24. Assess before & after performance	157	.3858	.000
25. Follow up with trainees	157	.3818	.000

TABLE XXII
RANKING OF MOST FREQUENTLY USED ACTIVITIES
VERSUS MOST IMPORTANT ACTIVITIES

Experience	Importance
1. ID specific audience	1. Obtain support from management
2. Prioritize identified needs	2. ID a specific audience
3. ID needs through discussions	3. Follow up with trainees
4. Obtain support from management	4. Assess before and after performance
5. Present results to management	5. Analyze performance problems
6. Use staff to develop model	6. Prioritize identified needs
7. ID needs through discussions	7. Present results to management
8. Summarize results	8. Use results with long-range plan
9. Revise programs based on results	9. Use results with short-range plan
10. Use results with short-range plan	10. ID needs through job analysis

In a like manner, those activities used the least frequently by the respondents and those activities perceived to have the least importance are listed below in Table XXIII.

TABLE XXIII
RANKING OF LEAST FREQUENTLY USED ACTIVITIES
VERSUS LEAST IMPORTANT ACTIVITIES

Experience	Importance
1. ID needs through trends	1. ID needs through trends
2. ID needs through litigation	2. ID needs through litigation
3. Use consultants to develop models	3. Use consultants to develop models
4. Determine cost effectiveness	4. ID needs through publications
5. Design evaluation questionnaires	5. ID needs through discussions

Overall, respondents ranked five of ten needs assessment activities among both the most used and the most important activities. Also, the first three least used/least important activities were identical.

Summary

A census was conducted of 578 members of the Dallas Chapter of the American Society for Training and Development concerning their utilization of needs assessments. There were 557 deliverable questionnaires and 165 responses for a response rate of 29.62 per cent. Five of the responses were missing a considerable number

of responses and therefore not used in the final calculations. The following is a summary of the findings gathered from the responses to the survey instrument.

1. An examination of the number of needs assessments conducted by the respondents during the last year indicated that the respondents utilized needs assessments as part of their most recent planning efforts. However, when respondents were asked to indicate the number of needs assessments conducted during their career, the frequencies were more varied with the largest number of responses at both the high and low end of the scale.

2. The results of the needs assessments are utilized to a moderate or frequent extent in the long-range planning process, while the data indicate needs assessment results are utilized frequently in the short-range planning process.

3. The large majority of respondents indicated they utilized in-house staff to develop the needs assessment models. Similarly, most respondents did not use external consultants to develop the needs assessment models.

4. The relationship between industry group and respondents' total experience in needs assessments was not significant for any of the groups.

5. The relationship between industry group and the respondents' total perceived importance was not significant for any of the groups.

6. The relationship between industry group and the mean number of needs assessments conducted by the respondents during the past year was not significant.

7. The relationship between industry group and the number of needs assessments conducted by the respondents during their entire career was not significant.

8. There was a highly significant positive correlation between total experience in needs assessments and total perceived importance of the needs assessment process.

9. There was a highly significant positive correlation between experience and importance for each needs assessment activity on the survey instrument.

10. The frequencies for the needs assessment activities were computed comparing experience to importance. The ten most frequently used activities had five activities in common with those perceived to be most important. The five least used activities were similarly ranked with the five activities perceived to be least important, revealing identical activities as the top three choices.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purposes of this study were to determine the extent to which needs assessment programs are utilized by training and development professionals, to determine the effect of using needs assessments upon resultant training and development programs, to determine the origin of the needs assessment models utilized by training and development professionals, to determine if needs assessments are utilized more frequently by training and development professionals in specific industry markets, and to determine the perceived value of the needs assessment process to training and development professionals. A comprehensive review of the literature was conducted concentrating on the areas of (1) reasons to use needs assessments, (2) needs assessment definitions and models, (3) needs assessment methods, (4) the needs assessment process, and (5) problems using needs assessments.

The review of literature suggested that needs assessments were extremely popular as a planning tool

among training and development professionals. And while there was an abundance of literature on needs assessments available, there actually have been very few studies conducted into the area of utilization of needs assessments among training and development professionals.

In this study, members of the Dallas Chapter of the American Society for Training and Development were surveyed as to their utilization of needs assessment activities. They were also asked to indicate the level of perceived importance for the same activities. Demographic and additional respondent information were also collected from the same questionnaire. The overall return rate for the survey instrument was 29.62 per cent. Computations of frequencies, means, and statistical analyses were conducted at the North Texas State University Computing Center utilizing the Statistical Package for the Social Sciences (SPSS).

Frequencies and percentages were reported for the respondent and demographic data solicited by Part B of the questionnaire. The research questions concerning frequency of use, utilization of needs assessment results, and development of needs assessment models were also reported in terms of frequencies and percentages. For purposes of statistical analysis of the remaining research questions, the respondents were divided into six industry groups. Analysis of variance was then used to test for

significant differences between the groups according to experience and importance variables.

Findings

Analysis of the data presented in Chapter IV yielded the following findings.

1. Most of the respondents reported some degree of utilization of needs assessments both during the past year and during their career.

- A. Respondents reported a range of zero to 33 needs assessments conducted during the past year.
- B. 15.7 per cent reported conducting no needs assessments during the past year.
- C. 41.2 per cent reported conducting one or two needs assessments during the past year.
- D. 28.2 per cent reported utilizing needs assessments 0-4 times during their career.
- E. 36.5 per cent reported utilizing needs assessments 20 or more times during their career.

2. The results of the needs assessments are utilized to a moderate or frequent extent in the long-range planning process, while the data indicate needs assessment results are utilized frequently in the short-range planning process.

- A. 27.7 per cent reported moderate usage of needs assessments in the long-range planning process.
- B. 25.8 per cent reported using needs assessments very frequently in the long-range planning process.
- C. 37.1 per cent reported frequent usage of needs assessments in the short-range planning process.
- C. 25.8 per cent reported very frequent usage of needs assessments in the short-range planning process.

3. The large majority of respondents indicated they utilized in-house staff to develop the needs assessment models, while most did not use external consultants for this process.

- A. 31.8 per cent reported frequent use of in-house staff to develop needs assessment models.
- B. 30.6 per cent reported very frequent use of in-house staff to develop needs assessment models.
- C. 41.7 per cent reported no experience with utilizing external consultants to develop needs assessment models.
- D. 31.4 per cent reported infrequent utilization of external consultants to develop needs assessment models.

4. No relationships were found between the industry groups and the respondents' total experience in needs assessments.

5. No relationships were found between the industry groups and the respondents' perceived importance of the total needs assessment process.

6. No relationships were found between the industry groups and the number of needs assessments conducted during the past year.

7. No relationships were found between the industry groups and the number of needs assessments conducted during the respondents' career.

8. There was a highly significant positive correlation between total experience in needs assessments and total perceived importance of the needs assessment process.

9. There was a highly significant positive correlation between experience and perceived importance for each individual needs assessment activity.

Conclusions

Based on the findings of this study, the following conclusions can be drawn.

1. As a group, the members of the Dallas Chapter of ASTD use needs assessments to some extent therefore indicating that needs assessments are utilized by training and development professionals.

2. As a group, the members of the Dallas Chapter of ASTD use needs assessments more frequently for short-range planning than long-range planning. This apparently indicates that short-term needs assessment projects are easier to successfully conduct or more in demand than lengthy projects.

3. Training and development professionals in the Dallas Chapter of ASTD prefer to use in-house staff for the development of needs assessment models. It may be that utilization of in-house staff offers a more timely and cost efficient method of conducting needs assessments.

4. The utilization of needs assessments and the perceived importance of the needs assessment process among the members of the Dallas Chapter of ASTD does not differ between the represented industries indicating a commonality of needs assessment practice among the industries in this organization.

Recommendations

Based on the findings of this study, the following recommendations are made.

1. Similar studies of training and development professionals in other ASTD chapters or on the national level should be conducted to assess the degree to which needs assessments are utilized and the relative importance other ASTD professionals place on this process.

2. Similar studies should be conducted to determine the degree to which training and development professionals in U.S. corporations utilize needs assessments and the relative importance placed on the needs assessment process.

3. Additional studies are warranted to determine which needs assessment methods are most frequently utilized.

4. Studies are warranted that evaluate the relative effectiveness of the needs assessment on subsequent training programs.

5. Further studies are warranted to determine the effect of various types of training in needs assessment on the resultant needs assessment project.

APPENDICES

APPENDIX A
COVER LETTER TO JUDGES

Date

Name
Title
Address
City, State Zip

Dear _____:

Thank you for agreeing to serve on the panel of experts to validate a questionnaire for a study on the usage of needs assessments among training and development professionals. The professionals to be surveyed are members of the Dallas Chapter of the American Society for Training and Development (ASTD).

Enclosed is the questionnaire and a copy of the research questions proposed for this study. A rating sheet is also included for your convenience. Please feel free to note on the form any area of importance which you feel has been omitted from the survey that you believe should be considered.

Again, thank you for your time and cooperation.

Sincerely,

/s/ Teri M. Hires
Teri M. Hires, B.M., M.M.

Enclosures

APPENDIX B
QUESTIONNAIRE RATING SHEET

Name _____

Date _____

Your help is needed in order to establish the content validity of a structured questionnaire to be sent to members of the Dallas Chapter of ASTD. Please use the Research Questions and the Questionnaire for assistance in determining if an item is acceptable or unacceptable for this study. It would be helpful if you would include a comment of explanation for any item that you rate unacceptable.

<u>Item</u>	<u>Accept- able</u>	<u>Unaccept- able</u>	<u>Don't Know</u>	<u>Item</u>	<u>Accept- able</u>	<u>Unaccept- able</u>	<u>Don't Know</u>
1A.	_____	_____	_____	9B.	_____	_____	_____
2A.	_____	_____	_____	10B.	_____	_____	_____
3A.	_____	_____	_____	11B.	_____	_____	_____
4A.	_____	_____	_____	12B.	_____	_____	_____
5A.	_____	_____	_____	13B.	_____	_____	_____
6A.	_____	_____	_____	14B.	_____	_____	_____
7A.	_____	_____	_____	15B.	_____	_____	_____
8A.	_____	_____	_____	16B.	_____	_____	_____
9A.	_____	_____	_____	17B.	_____	_____	_____
10A.	_____	_____	_____	18B.	_____	_____	_____
11A.	_____	_____	_____	19B.	_____	_____	_____
1B.	_____	_____	_____	20B.	_____	_____	_____
2B.	_____	_____	_____	21B.	_____	_____	_____
3B.	_____	_____	_____	22B.	_____	_____	_____
4B.	_____	_____	_____	23B.	_____	_____	_____
5B.	_____	_____	_____	24B.	_____	_____	_____
6B.	_____	_____	_____	25B.	_____	_____	_____
7B.	_____	_____	_____	26B.	_____	_____	_____
8B.	_____	_____	_____	27B.	_____	_____	_____
				28B.	_____	_____	_____

Comments: _____

QUESTIONNAIRE RATING SHEET
(Continued)

Please check as appropriate that you Agree, Disagree, or are Undecided for each of the following statements. It would be helpful if you would include a comment for any statement with which you disagree.

	<u>Agree</u>	<u>Disagree</u>	<u>Undecided</u>
1. At least one item is present for each measurable objective.	_____	_____	_____
2. The language of each item (marked acceptable) is easily understood.	_____	_____	_____
3. The arrangement of the items on the questionnaire is acceptable.	_____	_____	_____

Comments: _____

APPENDIX C
LETTER TO PILOT GROUP

Date

Name
Title
Address
City, State Zip

Dear _____:

Thank you for agreeing to serve as a member of the pilot group for a study on the usage of needs assessments among training and development professionals. The professionals to be surveyed are members of the Dallas Chapter of the American Society for Training and Development (ASTD).

Enclosed is the questionnaire. Please feel free to note any area of importance which you feel has been omitted from the survey that you believe should be considered.

Again, thank you for your time and cooperation.

Sincerely,

/s/ Teri M. Hires
Teri M. Hires, B.M., M.M.

Enclosures

APPENDIX D

COVER LETTER FOR QUESTIONNAIRE

Date

Dear Dallas ASTD Member:

With the support of the American Society for Training and Development, I am engaged in a study on the usage of needs assessments by training and development professionals. For the purpose of this survey, needs assessment is considered to be the process of determining the difference between "what is" and "what should be," prioritizing the activities and then selecting those activities perceived to hold the highest priority for resolution.

Would you please take a few minutes of your time to complete the questionnaire and return it by _____. A stamped, return-addressed envelope is enclosed for your convenience in returning the completed survey. Data collected in this study will be evaluated as group statistics, so the confidentiality of individual information will be maintained.

Your participation in this study is most valuable and very much appreciated.

Sincerely,

/s/Teri M. Hires

Enclosures

APPENDIX E

LETTER IN SUPPORT OF STUDY

Date

TO DALLAS ASTD MEMBERS:

Ms. Teri Hires, a doctoral candidate at North Texas State University and a software analyst with Wang Labs, is conducting an important research study for the training profession. Her study has been reviewed and approved by a select panel of Dallas Chapter members who were appointed by President Tom Stokes. We, the administration of the Chapter, solicit your contributions to this study and ask that you take the time needed to complete the enclosed instrument.

Ms. Hires' research results will be incorporated into those efforts to be undertaken by the Evaluation/Research unit of the Chapter during 1986. Studies of this type can lead to improvement in the nature and quality of professional development activities conducted and/or sponsored by Dallas ASTD in the coming months. By completing and returning this instrument, you will have had a direct impact upon your own professional development.

Again, inasmuch as this is a chapter sponsored and supported activity, we urge you to participate. Thank you for your time and thoughtful contributions.

Sincerely,

/s/Thomas Eaves
Thomas Eaves, Past VP
Member Services

APPENDIX F

NEEDS ASSESSMENT QUESTIONNAIRE

PART A: NEEDS ASSESSMENT ACTIVITIES - Circle the appropriate number to rate each of the following needs assessment activities. Answer each item TWICE according to (1) EXPERIENCE (left column) and (2) IMPORTANCE (right column).

How frequently does your **EXPERIENCE** include each needs assessment activity?

No Experience	Used Infrequently	Used Moderately	Used Frequently	Used Very Frequently
---------------	-------------------	-----------------	-----------------	----------------------

How much **IMPORTANCE** do you think should be placed on each needs assessment activity regardless of your experience?

No Importance	Minor Importance	Moderate Importance	Important	Significant Importance
---------------	------------------	---------------------	-----------	------------------------

ACTIVITIES

- | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 1. Identifying a specific audience to be addressed for the needs assessment. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 2. Designing questionnaires to be used in the needs assessment survey. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 3. Identifying training and development needs through informal discussions with other members of your organization. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 4. Identifying training and development needs through questionnaire surveys. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 5. Identifying training and development needs through interviews and formal discussions. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 6. Identifying training and development needs through analysis of job requirements. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 7. Identifying training and development needs by studying professional publications and mass media. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 8. Identifying training and development needs by studying current litigation/arbitration. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 9. Identifying training and development needs by studying population trends, history of the community, political influences, and census data. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 10. Analyzing performance problems to determine any applicable training and development solutions. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 11. Determining the cost effectiveness of the needs assessment study. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 12. Establishing criteria for measuring needs based on desired skill and/or knowledge levels. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 13. Using in-house staff to develop the needs assessment model. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 14. Securing external consultants to develop a needs assessment model. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 15. Obtaining support for the needs assessment study from management. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 16. Conducting statistical analysis on compiled results. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 17. Summarizing needs assessment results by compiling information gathered in the data collection process. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 18. Ranking the identified needs according to priority. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 19. Making formal presentation of needs assessment results to management. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 20. Revising current materials/programs based on needs assessment results. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 21. Using the results of the needs assessment as a part of the long-range planning process. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 22. Using the results of the needs assessment as a part of the short-range planning process. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 23. Designing questionnaires for evaluating programs created as a result of the needs assessment study. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 24. Assessing performance before and after training to measure training effects. | 0 | 1 | 2 | 3 | 4 |
| 0 | 1 | 2 | 3 | 4 | 25. Following up at regular intervals with trainees to determine the success of training program created as a result of the needs assessment study. | 0 | 1 | 2 | 3 | 4 |

(Over, Please!)

PART B: RESPONDENT INFORMATION - Please provide the following information about yourself by checking the appropriate answer.

1. Sex:
 - Male Female
2. Age:
 - Under 25 25 - 34 35 - 44 45 - 54 55 - 64 65 or Over
3. Education: (Fill in the highest level attained)
 - High School: _____ Year
 - Associate's: _____ Year
 - Bachelor's: _____ Year
 - Master's: _____ Year
 - Doctorate: _____ Year
 - Other: _____ Year
4. Formal training in needs assessment: (Check all that apply)
 - No Training
 - Seminars, Workshops
 - Formal Academic Courses
 - On-The-Job Training
 - Other (Please Specify) _____
5. Length of experience in Human Resources Development (HRD) and/or Training & Development (T&D):
 - No experience
 - Less than 1 year
 - 1 - 5 years
 - 6 - 10 years
 - Over 10 years
6. In how many needs assessment projects did you participate during the past year: _____
7. In how many needs assessment projects have you participated during your career:
 - 0 - 4 5 - 9 10 - 14 15 - 19 20 or Over
8. Industry of current or most recent PRIMARY employer: (PLEASE CHECK ONLY ONE ANSWER)

<ul style="list-style-type: none"> <input type="checkbox"/> Banking <input type="checkbox"/> Consulting <input type="checkbox"/> Education <input type="checkbox"/> Energy <input type="checkbox"/> Government <input type="checkbox"/> High Technology/Computers <input type="checkbox"/> Hotel/Restaurant 	<ul style="list-style-type: none"> <input type="checkbox"/> Legal <input type="checkbox"/> Manufacturing <input type="checkbox"/> Medical <input type="checkbox"/> Retail <input type="checkbox"/> Service Organization <input type="checkbox"/> Other (Please specify) _____
--	---
9. Are you presently looking for a job in T&D? Yes No
10. Please indicate your current employment status:
 - Employed in T&D
 - Employed but not in T&D; however, I have previous experience in T&D
 - Employed but not in T&D and I have no previous experience in T&D
 - Unemployed but I have previous experience in T&D. SKIP TO #13
 - Unemployed and no previous experience in T&D. SKIP TO #13
 - Never been employed. SKIP TO #13
11. Total number of employees in your organization:

<ul style="list-style-type: none"> <input type="checkbox"/> Less than 10 <input type="checkbox"/> 10 - 49 <input type="checkbox"/> 50 - 99 <input type="checkbox"/> 100 - 999 <input type="checkbox"/> 1,000 - 9,999 	<ul style="list-style-type: none"> <input type="checkbox"/> 10,000 - 19,999 <input type="checkbox"/> 20,000 - 29,999 <input type="checkbox"/> 30,000 - 39,999 <input type="checkbox"/> 40,000 - 49,999 <input type="checkbox"/> 50,000 or Over
---	---
12. Personal annual income:

<ul style="list-style-type: none"> <input type="checkbox"/> Less than \$20,000 <input type="checkbox"/> \$20,000 - \$29,999 <input type="checkbox"/> \$30,000 - \$39,999 <input type="checkbox"/> \$40,000 - \$49,999 	<ul style="list-style-type: none"> <input type="checkbox"/> \$50,000 - \$59,999 <input type="checkbox"/> \$60,000 - \$69,999 <input type="checkbox"/> \$70,000 or Over
---	---
13. What do you consider to be the three (3) major issues in T&D during the next five years:
 - 1. _____
 - 2. _____
 - 3. _____
14. Do you have any suggestions for improvement concerning the use of needs assessments in T&D:
 - _____
 - _____
 - _____
15. Comments:
 - _____
 - _____
 - _____

APPENDIX G
FOLLOW-UP POST CARD

Date

Dear Dallas ASTD Member:

Approximately two weeks ago you received in the mail a questionnaire concerning your usage of needs assessments. If you have not already done so, will you please take a few minutes to complete the questionnaire and return it to me?

Your responses will provide valuable data for my study. Thanks so much for your help.

Teri M. Hires

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