

convenience, rather than data-based organizational requirements.

Hannum, W. & Hansen, C. (1989) *Instructional Systems Development in Large Organizations*. Englewood Cliffs, NJ: Educational Technology Publications.

Hannum & Hansen's support beginning with a top-down, societal needs assessment, but elect in their model to examine only gaps in results at the level of the individual performer and suggest that their model be solely used to document process inefficiencies. Clearly, efficient processes are essential to the successful operation of any organization. However, discrepancies that are not demonstrated to have a relationship with actual gaps in results may not necessarily yield effective results. As such, Hannum & Hansen's model functions in a "needs analysis" mode without the prior and (we suggest) essential phase of needs assessment that they choose to omit. Nevertheless, the model is reasonably strong on research methods with guidelines for the collection of hard (independently verifiable) and soft (not independently verifiable) data, which are applicable in a variety of settings.

Kaufman, R. (1998) *Strategic Thinking: A Guide to Identifying and Solving Problems (revised)*. Arlington, VA. & Washington, D.C.: Jointly published by the American Society for Training & Development and the International Society for Performance Improvement.

Kaufman's Organizational Elements Model (OEM) is the only needs assessment framework reviewed that formally addresses the linkages between every results focus (societal, organizational, small-group, and individual). The OEM framework suggest that a needs assessment begin with a focus on societal results (referred to as mega-level results) and roll-down to organizational (macro-level) and individual or small-group (micro-level) results. Functionally, both proactively and reactively, the OEM is a dynamic template that can be used to identify the impact of organizational action at all levels of results. Though a direct distinction is not made between individuals and small groups, Kaufman's outside-in approach to

planning and inside-out approach to implementation yields findings that may be applied to data-based decisionmaking. Also included in his approach are several algorithms and toolkits, which are intended to aid in the implementation of needs assessments.⁹

Mager, R. F. & Pipe, P. (1997) *Analyzing Performance Problems*. (3rd edit.) Atlanta, GA: The Center for Effective Performance, Inc.

The scope of Mager & Pipe's model extends as far as the individual performer and, by extension, the organization itself. Additionally, the model is fundamentally reactive, primarily intended for making only adjustments to the status quo at the level of individual and small-group performance. Mager & Pipe hold that cost-benefit is the best approach to solution selection but do not explicitly detail a process by which alternate solutions are generated. Additionally, Mager & Pipe do not directly address formative evaluation and continuous improvement despite Quality Management's emphasis on data-based decisionmaking—a goal of the "Performance Analysis Flow Diagram."

Murk, P. J. & Wells, J. H. (1988: October) A Practical Guide to Program Planning. *Training & Development Journal*, v42, n10.

As a guide to program planning, the Systems Approach Model (SAM) functions as a broad model of instructional design, rather than being solely dedicated to needs assessment. This nonlinear model includes needs assessment as an important component. The needs assessment process described functions though as a learner analysis (similar to many models in the medical training field) to be used to identify necessary entry skills to training programs. Murk & Wells' model is a good introduction to an interesting approach but does not appear to have been fleshed out sufficiently by its authors in subsequent writings to go beyond defining learner entry skills, knowledge, attitudes, or abilities.

Ostroff, C. & Ford, J.K. (1989) *Assessing Training Needs: Critical Levels of Analysis*. In I. L. Goldstein, (Ed.),

Training and Development in Organizations. San Francisco: Jossey-Bass Publishers.

Ostroff & Ford's model is one of several models for needs assessment derived from McGehee & Thayer's 1961 text *Training in Business and Industry*. This text proposes that training requirements be analyzed according to three content areas: organizational, task, and person. Ostroff & Ford expand this framework by including a "levels" dimension (consisting of organizational, sub-unit, and individual) as well as an "application" dimension (incorporating the issues of conceptualization, operationalization, and interpretation). Twenty-seven discreet analyses can be conducted based on similarities and differences of constructs between and across various "levels." In addition to the significant logistical difficulty of managing such an analysis, Ostroff & Ford provide no examples, tools, or methods regarding application of their model. Further, their model approaches needs assessment as a rolling-up process, similar to Burton & Merrill, and does not link organizational means to ends and external consequences. Without a doubt, the Levels Perspective Model is one of the most dense and theoretically conceived models in this study, however the model does not consider external impact.

Robinson, D. G. & Robinson, J. C. (1995) *Performance Consulting: Moving Beyond Training*. Berrett-Koehler.

Similar to Gordon's Front-End Analysis Model of Needs Assessment, the Performance Relationship Map emphasizes both training and non-training solutions to individual and small-group performance discrepancies. The authors suggest that business goals, objectives, and strategies for a unit, division, department, or entire organization serve as the basis against which all performance requirements are to be anchored. Applying a Performance Relationship Map includes involving a wide variety of stakeholders into defining performance problems, and bases solution selection in value-added for the individual performer and the organization as a whole, rather than for external clients and society. Instead, key perfor-

mance requirements are identified according to perceived importance of job practices and competencies versus the current skill level of performers. While this approach is internally efficient, it does not causally link individual performance to organizational or societal success.

Rossett, A. (1987) *Training Needs Assessment*. Englewood Cliffs, NJ: Educational Technology Publishing Co.

Perhaps one of the most widely used training requirements analysis models currently in use by business and industry, Rossett's reactive model seeks to lessen the gap between "optimal" and "actual" individual and small-group performance. The procedure for this activity involves responding to initiating performance discrepancies by first identifying the source of problems (causal analysis), then gathering opinions and ideas from primarily soft data sources using the largely qualitative methods of collection. Rossett holds that findings are to be used for decisionmaking, but does not demonstrate how individual and small-group results ensure desired organizational and societal payoff. *Training Needs Assessment* provides many useful tools that may be employed during needs analysis and can be quite helpful to practitioners new to data collection.

Rothwell, W. J. & Kazanas, H. C. (1992) *Mastering the Instructional Design Process: A Systematic Approach*. San Francisco: Jossey-Bass Publishers.

Rothwell & Kazanas take great pains to establish operational definitions of the constructs associated with needs assessment. Differentiating the planning process, from the tangible plan and the implementation of the needs assessment, the authors establish a model that is relatively consistent with the definitions used in this study. Their guide to conducting a needs assessment functions well as a management and implementation plan and is strong concerning sampling and data collection. As with Burton & Merrill's "Four-Phase Needs Assessment Model," Rothwell & Kazanas' model relies on two main assumptions. First, the authors presuppose that intended results will necessarily follow from individual and small-group

application of skills. Second, they assume that instructional goals possess the rigor necessary for decisionmaking, and will contribute to individual, small-group, organizational, and societal consequences. Review of the Rothwell & Kazanas model may be useful in the development of a needs assessment management plan, though its utilization could lead an organization away from identified and required consequences of an intervention unless based in a rigorous results-based needs assessment.

Rummler, G. A. & Brache, A. P. (1990) *Improving Performance: How to Manage the White Space on the Organization Chart*. San Francisco: Jossey-Bass Publishers.

The Relationship Map is a proposed improvement to the organizational maps common in many fields. The major contribution of the Relationship Map is the provision of a horizontal systems perspective, which includes recognition of internal and external clients, outputs delivered to customers outside the organization, and the flow of work that transforms inputs to products and outputs. This mapping provides a systems view that can be useful to needs assessment initiatives. The application of this tool with other models (especially the societal results focus of Kaufman's OEM) may increase the utility of the needs assessment effort. In a latter chapter of their text Rummler & Brache go on to explain how their map can be used to design an efficient organizational structure by comparing current and desired processes. While the authors discuss this activity from the organizational, process, and job/performer levels, their concern is primarily with resource availability and process efficiency. Though external environmental factors are discussed as inputs to the organizational system, the model does not seem to address the reverse... the societal impact of organizational outputs. Due to this disposition, the Relationship Map might infer that the results achieved by the organization will deliver beneficial results to external clients and society.

Witkin, B. R. & Altschuld, J. W. (1995) *Planning and Conducting Needs*

Assessments: A Practical Guide. Thousand Oaks, CA: Sage Publications.

The Three-Phase Model proposed by Witkin & Altschuld is actually an analysis, assessment, and action-plan framework embedded within one method. These processes occur over three phases: pre-assessment (exploration), assessment (data gathering), and post-assessment (utilization). As the first and last phase go beyond the scope of needs assessment as defined here, the model is actually a plan for problem identification and resolution. As a reactive model, the authors describe needs assessment as a means by which to cope with current and future problems and constraints via risk identification techniques, rather than anticipating and creating future opportunities. This philosophical underpinning is significant because it contributes to the absence of formal concern with societal payoffs of organizational action. Rather, the focus of Witkin & Altschuld's model tends to be on process improvement and the achievement of the organization's goals for individuals and small groups. Organizational payoff is assumed to flow directly from the accomplishment of these goals with external clients functioning only in the context of demand and consumption of organizational outputs.

Zemke, R. & Kramlinger, T. (1985) *Figuring Things Out: A Trainer Guide to Needs and Task Analysis*. Reading, MA: Addison-Wesley.

The Zemke & Kramlinger's Figuring Things Out (FTO) Model is composed of factors that affect performance in an organization. The factors are detailed in three primary arenas: performer, local performance environment, and organizational climate. The authors suggest that an FTO study begins by capturing the organizational climate and culture data, including how the mission and goals of the organization are translated into actions at the functional/operational levels. Though from this point on, the FTO model mirrors many conventional task analyses. Comparable to Rossett's Training Needs Assessment, Zemke & Kramlinger devote most of their effort to providing tools and guides for collecting both hard and soft data within an

organization. The FTO model, like many of the needs assessment models examined in this digest, infers that the results achieved by the performer will be beneficial to internal and external clients as well as society.

Recent Journal Articles

Cline, E. & Seibert, P. (1993) *Help for First-time Needs Assessors. Training & Development Journal*, v47, n5, p99(3).

Cline & Seibert suggest that the needs assessment process they describe can provide a responsive model for "knowing the requirements of trainees and the organization." Their model begins with assessment planning, which includes establishing goals, researching the topic, and creating a guidance group. The model then recommends that data sources be identified along two dimensions: hard and soft data sources. Guidelines for the collection of soft data include interviews, group discussions, and questionnaires (though details on the collection of hard data are not provided). When the required data is compiled, Cline & Seibert recommend that major topics be identified, statistics calculated, and a final report prepared. While the model provides a brief overview of a typical needs assessment process, Cline & Seibert's model addresses neither individual/small-group or organizational performance, nor the impact on the external clients and society.

Published Abstract: Assessment of the needs of trainees and organizations is normally the first step taken in the development of training programs. In addition to serving as the basis for training, needs assessment procedures also functions to preclude potential problems. However, the multiplicity of needs assessment designs can lead to confusion when choosing an appropriate one for a training project. A general guideline for the easier selection of a suitable design is recommended. The planning phase involves identification of the possible usages of data; setting of criteria or goals; familiarization with the topic, task, or focus through research; developing a guidance group; determining the sources of data; and structuring an interview format. The data-collection phase, on the other hand, requires interviews, group

discussion, and gathering of hard data. The last stage is the data-analysis phase. This involves data compilation, statistical analysis, and preparation of a report.

Cureton, J., Newton, A. and Tesolowski, D. (1986) *Finding Out What Managers Need. Training & Development Journal*, v40, n5, p106(2).

Though Cureton et al. do not offer readers a detailed model for conducting a needs assessment, they do provide several considerations that should be addressed in a needs assessment project. These recommendations include the use of advisory committees, assessment centers, behavior observation, as well as conventional interviews and attitude surveys. The authors suggest that "a major problem that frequently occurs when needs assessments are conducted is that data are not integrated into the organization's entire planning process" (p. 106). While Cureton et al. do not address individual, organizational, or community results, their recommendations regarding the relationship of an assessment with organizational planning is vital to the organizational and project success.

Published Abstract: Managing has gotten more complicated, making it more important than ever to understand what managers need. Manager needs assessment programs can help, particularly at providing early warning of problems. Assessments can use several methods: advisory committees, assessment centers, attitude surveys, or interviews. In all cases interviews with key managers is a must.

Darraugh, B. (1991) *It Takes Six (six-step model for needs assessment). Training & Development Journal*, v45, n3, p21(3).

The six-step model for needs assessment described by Darraugh in this short article appears to parallel Rossett's (1987) Training Needs Assessment Model in its determination of actuals, optimal, attitudes, and causes. Darraugh does provide readers with 15 questions that are recommended as essentials to the needs assessment process. While these questions may provide an orientation to the purpose of a needs assessment, the six steps briefly described in the article are not linked to

societal, organizational, nor individual accomplishments and provide little guidance in the procedures of conducting a useful needs assessment.

Published Abstract: Needs assessments are conducted to determine what constitutes good performance on specific job functions, what constitutes actual performance, and attitudes about job descriptions. Preceding needs assessments, training professionals should determine the objectives of the analyses, the deficiencies and why they exist, and how the assessments will benefit those involved. The primary steps in needs analyses¹⁰ include defining assessment objectives, identifying needed data, and selecting a data-gathering method. Guidelines for analyzing the data that is gathered include using relevant models of human performance, determining whether solutions to problems can be developed, and knowing the study subjects.

Fairbairns, J. (1991) *Plugging the Gap in Training Needs Analysis. Personnel Management*, v23, n2, p43(3).

Fairbairns suggests that many needs analysis techniques fail to produce reliable information. She identifies two questions common to many needs analyses: 1) What skills, knowledge, and/or personal attributes are important in your job and, 2) In what skills, knowledge, and/or personal attributes are you in "need" of training? In addition to these questions, whether the skills, knowledge, and/or personal attributes likely to be encouraged/rewarded is included by the author as a primary question for a needs assessment. The area that overlaps between these three questions determines "exactly what we've been asking for" or training requirements. Fairbairns' model does not address results at any level and is likely best classified a needs-analysis model.

Published Abstract: Training needs analysis has attempted to determine the difference between the knowledge employees should have and the knowledge they do have, but this method frequently fails to generate reliable information because of the lack of a cultural dimension. When conducting a training needs analysis, employers should discover employees' per-

ceptions of the corporate culture by asking them about the skills and characteristics that are likely to be encouraged, recognized, and rewarded. Billiton International Metals conducted a needs-analysis survey by asking employees about the importance of training to the future of the organization, the need for training to meet employees' own goals, and the potential for recognition or reward from the firm. The survey allowed the firm to collect information on the employees' perceptions of a training program.

Freeman, J. (1993) Human Resources Planning—Training Needs Analysis. Management Quarterly, v34, n3, p32(3).

Freeman addresses the topic of needs assessment within the context of how the process is related to long-range planning for human resources. Though the article focuses on the achievement of individual goals, the author suggests that "this may involve looking beyond the office and into the community." The article briefly describes a planning process that includes a training and development assessment task. Though specifics in conducting a training and development assessment are not detailed, the author does appear to suggest that an assessment focus on training: "The complete human resources plan should address such issues as employee growth and development, hiring and promotion practices, legal considerations, as well as specific employee placement plans."

Published Abstract: An effective human-resources development plan requires a comprehensive training needs analysis to support it. This is especially true in the electric-cooperative industry, where long-range plans are the norm. A two- to three-year program should consider industry growth, services, and management needs in the future, as well as goals and means of developing employees, recruitment and promotion practices, compensation, and legal aspects. However, the needs assessment process should precede all such discussions, since it will provide the "needed" information for all these decisions. This process involves a meeting with representatives from all levels of the firm; a review of all positions, during which each job and

its requirements are identified; a personnel review for evaluative purposes; and the training and development assessment of human-resource development needs over the next few years.

Graham, K. & Mihal, W. (1986) Can Your Management Development Needs Surveys be Trusted? Training & Development Journal, v40, n3, p38(5).

Graham & Mihal offer readers an alternative model for developing a needs assessment that uses a surveying approach that is less likely to be biased by the perceptions of managers. According to the authors, "when the needs for a management-development program is determined by a survey that asks managers to report their wish list of training needs, one out of four programs recommended (25% to 38%) it will be unnecessary and waste training funds." Graham & Mihal use the implications of this to recommend a four-step survey process: 1) managers determine the task related to their work; 2) managers identify which tasks they believe their performance could be improved upon; 3) managers prioritize development desires; and 4) superiors then validate the development desires of their managers. This alternative to conventional surveying, though limited if used as the exclusive data collection method, can be useful during the development of a needs assessment.

Published Abstract: If management-development needs surveys are not generating proper trust from management, there are steps a personnel director can take to make the surveys more useful. Basically, the process involves transferring the creativity of the line managers back to the survey designers. Instead of asking managers what courses they want, create a list of tasks and expertise levels desirable to the managers, given their departments. Managers should be asked to identify which tasks employees need to perform more effectively, and which skills should be strengthened. The managers should also prioritize these needs, and the priority list should be verified by the managers' superiors. By focusing executives and tying in upper management, training surveys can more easily be translated into training programs...successful training programs.

Johnson, D. (1996) Take Two Classes and Call Me in the Morning: The Case for Training Wellness. Hospital Materiel Management Quarterly, v17, n3, p21(8).

Johnson acknowledges that his needs assessment model is focused on "training requirements planning" and does not address the identification of performance problems that are likely candidates for training solutions. But within this limited context and without a clear focus of performance, Johnson does offer several guidelines for determining the role of training within an organization. The model suggests that the process begins the identification of management's perception of training and the role of training within the organization. Then, in an approach that parallels other business processes, Johnson recommends the use of a "market survey" for the identification of desired training programs. Based on the results of the "market survey," training requirements (including what knowledge, skills, and aptitudes to be taught) are defined and analyzed. The "training-requirements planning" continues through the evaluation of training with short-term and long-term feedback.

Published Abstract: An effective employee-training framework that combines needs assessment with a training plan is discussed. The first step involves identifying customer demands and then determining the current level of knowledge of employees. Management support for training is another crucial factor in ensuring success. Training programs must also address the needs of both the organization and employees.

McArdle, G.E.H. (1996) Conducting a Needs Assessment for Your Work Group. Supervisory Management, v41, n3, p6(1).

This short article by McArdle differentiates between two types of needs assessments. The first type, problem analysis, "identifies a problem and offers solutions." The second, a competency model, considers the "available opportunities by identifying and acquiring new skills and abilities, or competencies." While McArdle offers three steps in determining

which type of assessment would be best suited for your organization, the assessment model described in the article can be applied to the problem analysis or competency model. McArdle's model appears to focus the assessment process on training requirements model and does not address specifically societal or organizational improvement.

Published Abstract: The first step in the design of a training program for work teams is a needs assessment. This needs analysis can help identify the training requirements that should be met and determine which workplace issues can be effectively resolved by training. Needs assessment can be either problem analysis or competency model. The former focuses on problems and provides solutions, while the latter examines available opportunities by identifying and developing new competencies. To determine which type of needs assessment suits their organizations, managers should record the current work situation, clarify the objectives of the whole exercise and seek management support. The assessment process itself comprises of only three stages: surveillance, investigation, and analysis.

McClelland, Sam (1992) *A Systems Approach to Needs Assessment*. *Training & Development Journal*, v46, n8, p51(3).

Unlike many "training needs assessment" models, McClelland emphasizes that training may or may not be the appropriate solution for organizational problems. His "systems approach," though not described in the detail required for many practitioners, offers many useful guidelines for making decisions regarding the use of outside consultants, selecting the appropriate needs assessment methodology, as well as administering the assessment. While the "systems approach" described by McClelland is intended to illustrate "how the assessment process integrates into the strategic plan of the entire organization," McClelland unfortunately does not provide adequate guidelines for integrating the needs assessment process with organizational planning...the basis for a systems approach.

Published Abstract: Training needs assessments (TNA) help organizations gauge

their members' skill and knowledge levels. Information from such assessments can serve as basis for the development of a training program designed to fill in skills and knowledge gaps among employees. "Training needs" may be assessed using the seven-step systems approach. This assessment strategy involves deciding whether to use experts from within or outside of the organization, setting goals for the TNA, gaining the support of top management, and choosing the best assessment methodology. The next steps involve implementing and controlling the project, analyzing TNA results, and reporting these results, together with recommendations to upper management.

McClelland, Samuel B. (1993) *Training Needs Assessment: An "Open-Systems" Application*. *Journal of European Industrial Training*, v17, n1, p12(6).

While his earlier article (McClelland, 1992) provided some general discussion of his approach to needs assessment, McClelland's second article¹¹ provides practitioners with recommendations for conducting an assessment. McClelland begins by differentiating assessments and surveys and suggests that surveys alone do not constitute a needs assessment. He then provides tactical suggestions for designing and planning an assessment from a systems approach (though, similar to his earlier article, McClelland again does not provide sufficient detail as to the integration of the needs assessment process with organizational planning). The remainder of the article provides many useful suggestions on implementing a variety of data-collection methods within a needs assessment process.

Published Abstract: A prescription for implementing an open-systems TNA is provided. TNAs are a popular and valuable tool for the human-resource development professional in determining an organization's skill, knowledge, and talent base. At the same time, it provides information on areas where training programs can be effectively implemented with the greatest impact.

Nelson, R. Ryan, Whitener, Ellen M., and Philcox, Henry H. (1995) *The*

Assessment of End-user Training Needs. *Communications of the ACM*, v38, n7, p27(13).

Nelson et al.'s study serves as a field validation of Ostroff and Ford's multifaceted matrix of questions regarding the perspectives of content, level, and application. Interestingly, Nelson et al. disregard the original model's "application" dimension, providing no explanation of their rationale. As with its predecessor, the model focuses primarily on the individual, small-group and organizational processes and inputs, rather than results. As many other models of needs assessment, its applicability is possibly diminished for most disciplines in that it assumes that individuals and small group's efficient utilization of resources and processes will yield useful and effective results for the organization and society. However, their study is strong in internal validity and demonstrates a good understanding and use of research methods.

Published Abstract: US organizations spend about \$5 billion annually to train end-users of information technology (IT). Less than 50% of organizations that evaluate their end-user training programs fail to measure the impact of training programs on their budgets, while an equal proportion of organizations that have training programs do not assess their training needs. Two models of direct needs assessment and a case study involving IT training in the IRS are presented to show how training needs assessment can greatly enhance the effectiveness of training.

Nowack, K. M. (1991) *A True Training Needs Analysis*. *Training & Development Journal*, v45, n4, p69(5).

Nowack's model for needs analysis differentiates between training "needs and wants" based on their importance to the job-task (or behavior) and the requirement for increased employee proficiency. The Nowack model has nine steps beginning with a job profile and focusing on questionnaire and focus-group data-collection methods. The model does not identify societal, organizational, or individual results, but rather focuses on organizational processes. Based on the information gath-

ered in the early steps of the model, training objectives are developed and serve as perception-based evaluation criteria.

Published Abstract: Companies can conduct an effective TNA by designing a questionnaire that distinguishes between training needs and training wants. The questionnaire should include two primary criteria: importance, which is the relevance and frequency of the activities and behaviors of a specific job; and proficiency, which is the competence of employees in performing their jobs. The steps in the needs analysis process include developing a job profile and a questionnaire. The questionnaire should include sections on employee attitudes, job-dimension summary ratings, and demographic information. The development of the questionnaire is followed by several steps, including the interpretation of the results, the use of focus groups to clarify the results, the development of training goals, and the evaluation of training effectiveness.

Stanger, J. (1993) *How to Do a Work/Family Needs Assessment*. Employment Relations Today, v20, n2, p197(9).

Similar to the many need assessment models that focus efforts on training requirements, the "work/family needs assessment" is intended to "obtain information on some or all of the following areas: employee demographics, current dependent-care arrangements, costs, satisfaction levels, special problems employees face with dependent care, and/or effects of dependent care on employee's work lives." Though the assessment is focused on determining the employee requirements for such interventions as personal leave, flexible hours, or telecommuting, the needs assessment model described by Stranger is very similar to many TNA models. The model recommends that data collection—through a combination of surveys and focus groups—be used to derive the employees' desire for work/family programs. While the work/family needs assessment model does provide several guidelines for creating surveys and interview questions concerning the perceived requirements of employees, the model does not address societal, organizational, or individual performance.

Published Abstract: Properly conducted employee surveys and focus groups are useful means of assessing existing and developing new family programs and policies. Objectives for the assessment of work/family programs must first be determined. Relevant information may be collected through surveys, which provide quantifiable data on relevant issues, or through focus groups, where employees may better air their concerns regarding the programs. Combining both survey and focus groups may also be done although the process is lengthier and costlier. Guidelines on proper phrasing and organization of questions for surveys and focus groups are given as well as other considerations in conducting the assessment. The data may be studied through descriptive analysis, statistical inference or qualitative analysis.

Triner, D., Greenberry, A., and Watkins, R. (1996) *Training Needs Assessment: A Contradiction in Terms?* Educational Technology, v36, n6, p51-55.

While the TNA model has remained among the most popular assessment models, Triner et al. offer an alternative perspective to the applicability of such assessments. Contrasting the TNA model with Kaufman's OEM through a simulated professional dialogue, Triner et al. define much of the assessment terminology that has generated confusion in the past. Similar to Watkins and Kaufman, Triner et al. do not offer a unique model for assessment, but rather address many of the confusions surrounding the determination of the appropriate needs assessment model for an organization and recommends decision criteria for selecting a useful needs assessment approach.

Published Abstract: Presents a simulated dialog that explores the issues surrounding the terms and concepts of TNA and contrasts those with "needs assessment." Needs, needs analysis, and training-requirements analysis are defined, and it is concluded that needs assessment is a better term than training needs assessment.

Watkins, R. & Kaufman, R. (1996) *An Update on Relating Needs Assessment and Needs Analysis*. Performance Improvement, v35, n10.

Though the Watkins & Kaufman article does not define a unique model of needs assessment (rather it recommends the use of the Kaufman model discussed earlier) the relevance of the article to a discussion of needs assessment compels its inclusion in this digest. Watkins & Kaufman offer a dynamic discussion of the relationships between needs assessment and analysis, as well as the many-faceted relationships they both have to organizational success (including objectives, return-on-investment analyses, and TNA). While confusion among assessments and analyses plague much of the performance-improvement literature, this article offers several distinctions that may facilitate the appropriate selection of needs assessment or analysis model.

Published Abstract: Updates previous work on the OEM that relates needs assessment and needs analysis. Highlights include purpose-based objectives and results-based objectives for organizations, differentiating between ends and means, costs-consequences analysis, and TNA.

Wright, P. & Geroy, G. (1992) *Needs Analysis Theory and the Effectiveness of Large-scale Government Sponsored training Programmes: A Case Study*. Journal of Management Development, v11, n5.

Like other articles highlighting the limitations of the TNA, Wright & Geroy (1992) note that "between 80% and 90% of productivity improvement can be found in the work environment or cultures" and thus, a "needs-analysis-tied-exclusively-to-training" is often ineffective. While the authors detail a needs assessment model utilized in their research with the Ontario Skills Programme, they additionally make suggestions for the selection of a needs assessment model. These recommended model characteristics are 1) a grounding in the organization's culture or overriding philosophy; 2) proactive rather than reactive focus; 3) a method of separating training requirements from other situations for which training would be an inappropriate intervention; 4) broad participation among various groups or individuals affected by training; 5) training-requirement identification technique

that is based on the identification of behaviors required to perform the job rather than perceptions; 6) the use or the consideration of a variety of data collection methods and/or sources; and 7) a cost-benefit analysis module.

Determining which assessment model(s) has the "right" scope for you and/or your organization:

1. Do I and/or my organization want to make certain that all that is used, done, produced, and delivered adds value to both the organization as well as external clients and society?

If yes, then implement a needs assessment model(s) that begins at the societal-results level with a focus on both internal and external results (see numbers 6, 28, and 29 in Figure 1).

If no, then go to question 2.

2. Do I and/or my organization only want to make certain that all that is used, done, and produced adds value to the organization?

If yes, then implement a needs assessment model(s) that begins at the organizational-results level with a focus on internal clients only (see numbers 12, 14, 16, 19, 20, 21, 22, 26, and 30 in Figure 1).

If no, then go to question 3.

3. Do I and/or my organization only want to make certain that all that is used and done adds value for individuals and/or small groups within the organization?

If yes, then implement a needs assessment model(s) that begins at the small-group and/or individual-results levels (see numbers 1, 2, 4, 5, 7, 8, 9, 10, 17, 22, 23, 24, and 25 in Figure 1).

If no, then go to question 4.

4. Do I and/or my organization only want to improve the efficiency of what we do?

If yes, then implement an assessment model(s) that begins at the application and/or acquisition of skill levels (see numbers 3 and 18 in Figure 1).

If no, then go to question 5.

5. Do I and/or my organization only want to be able to account for what is done and/or used?

If yes, then implement an assessment model(s) that begins at the reaction to intervention and/or resource availability/quality levels (see numbers 15 and 27 in Figure 1).

If no, then re-evaluate your requirements for conducting a needs assessment.

After you have identified the "right" scope for the needs assessment model(s) to be utilized, the additional questions that follow will assist you in selecting the appropriate model(s) for you and/or your organization.

Additional questions for identifying the "right" assessment model(s) for you and/or your organization:

1. Am I and/or my organization concerned with the continuous improvement of performance interventions based on the results of the needs assessment?

If yes, then implement a needs assessment model that has a continuous improvement formally identified (see numbers 1, 4, 6, 8, 12, 13, 14, 19, 23, 24, 27, 28, 29, and 30 in Figure 1).

2. Am I and/or my organization concerned with relying on assumptions for validating linkages between performance interventions, individual/ small-group results, organizational results, and value added for external clients and society?

If yes, then implement a needs assessment model that identifies in a "downward" approach the linkages between results to be attained and the processes utilized to attain them (see numbers 3, 4, 5, 6, 7, 9, 11, 12, 13, 14, 16, 19, 21, 22, 24, 28, 29, and 30 in Figure 1).

3. Do I and/or my organization want to remain proactive and address performance requirements before they become a "problem"?

If yes, then implement a needs assessment model that is proactive (see numbers 3, 6, 12, 16, 17, 19, 26, 28, 29, and 30 in Figure 1).

4. Do I and/or my organization require a needs assessment model that provides a variety of tools and methods?

If yes, then implement a needs assessment model that includes not only theoretical discussion, but offers validated tools, methods, and techniques for conducting a needs assessment as well (see numbers 2, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 17, 20, 23, 24, 27, 28, and 29 in Figure 1).

5. Am I and/or my organization concerned with triangulation of data sources and/or utilizing a combination of hard and soft data?

If yes, then implement a needs assessment model that addresses the collection and utilization of both hard and soft data (see numbers 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 22, 24, 26, 27, 28, 29, and 30 in Figure 1).

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¹ Perhaps the first publication suggesting that "needs" be defined as gaps in results rather than gaps in wishes, wants, or desires relative to processes or resources is Kaufman, et. al. (1964).

² Though these differences between assessments and analyses may seem evident, the early literature made little distinction between the processes. Therefore, literature detailing the interrelated literature is included in this digest.

³ Additional differences in needs assessment models include their recommendations for the triangulation of hard and soft data sources as well their alignment with return-on-investment analyses.

⁴ An "analysis" is different than an "assessment" in that an assessment identifies and prioritizes needs while an analysis breaks-down needs into their component parts and root cause and includes the selection of solutions.

⁵ Taken from Kaufman 1992, 1998.

⁶ Outside in tends to be proactive and inside-out tends to be reactive. See also "responsiveness."

⁷ As suggested by Mager, 1997.

⁸ To help assure that the digest authors' provided summaries were objective to the extent possible a third party review of the summaries was completed. Our gratitude is extended to Dale Brethower for his contributions to this digest.

⁹ Kaufman, Rojas, and Mayer (1993) provides additional guides and cases-in-point for the application of the OEM needs assessment framework.

¹⁰ Please note that the published abstract uses "needs analysis" and "needs assessment" interchangeably, implying equivalence not recommended by the digest authors.

¹¹ McClelland has authored several additional articles on topics related to needs assessment, specifically data collection techniques, that were not included in this digest.