

Training Needs Analysis: Suggested Framework for Identifying Training Need

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Abstract---*Training needs analysis (TNA) can be considered as the process of identifying and gathering data to determine what training needs exist based on performance gap, so that training can be developed to help the organization accomplish its objective. TNA was very useful as a fundamental to the success of training program. Without conducting need analysis, effective training can't be achieved, and organization run the risk of overdoing training, doing too little training or missing the point completely. The main stage to TNA involves a number of logical steps: identify problem needs, determine design of need analysis, collect data, analysis data, and provide feedback. This paper hopes to contribute to the body of knowledge on TNA by developing conceptual framework, which provide guidelines for TNA implementation in training program*

Keywords---*training need analysis, performance gap, training program*

I. Introduction

In the traditional perspective, training is the acquisition of knowledge and skills for presently known tasks. Adjusting workers to the technological changes and introducing people to the world of work at the entry level is one of the benefit of trainings. As of [4] "It is a planned and systemic effort to modify or develop knowledge, skill and attitude through learning experience, to achieve effective performance in an activity or range of activities. Its purpose, in the work situation, is to enable an individual to acquire abilities in order that he or she can perform adequately a given task or job and realize their potential".

To develop effective training, firstly we should identify and gather data to determine what training needs exist based on performance gap. In other words, we should conduct need analysis before training programs are developed. [3] acknowledged that there were four reasons why we should do this: (a) to identify specific problem areas in the organization, (b) to obtain management support, (c) to develop data for evaluation, and (d) to determine the costs and benefits of training. Another scholar, [5], recognize that the first important phase in planning and developing a training programs is the determination of the needs for such a programs within an organization.

The purposes of this paper is to describe the basic principles of TNA - definition, TNA models, logical steps of TNA, source data of TNA, advantages and disadvantages of needs assessment methods. We do hope this paper has significant contribution to guide the implementation of TNA in training program.

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II. training need analysis

Definitional Issues

Many authors have defined TNA and there is no single definition of TNA. [12] define TNA as a process by which an organization's HRD needs are identified and articulated. It is the starting point of the HRD and training process. [2] refer to training needs analysis as a key first stage in the systematic training cycle, the following stages of the cycle being: training design; and training delivery, and evaluation. Meanwhile, [11] refer to TNA as the first step in the training process. Designed to identify performance gaps that can be remedied by training. It consists of surveillance, investigation, and data analysis. TNA must be considered as the most important in training programs. TNA not only ensures returns on investments in training by organizations, but also minimizes errors possibly made in the training programs. TNA should precede any training intervention [6]; [9]; [10]. The similarities of authors viewed is TNA as starting point in the training process (See Fig. 1).

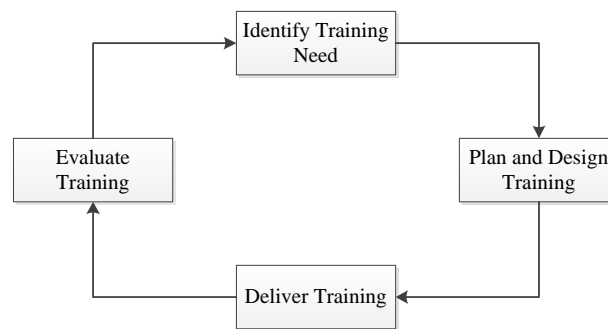


Fig 1: The Systematic Training Cycle
(Source: [1])

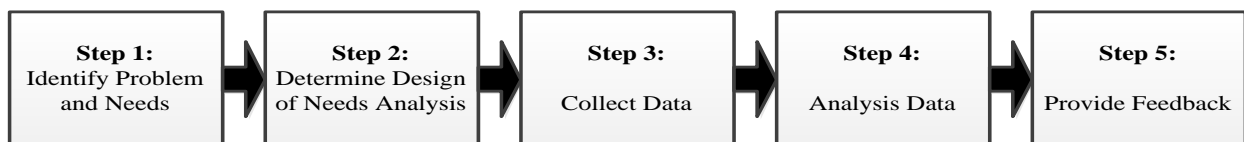


Fig 2: Five Steps of TNA

TNA must be performed by three levels of analysis, i.e. organizational, operational, and individual analysis, in order to design training which, satisfy the organization and its employees. [7] stated that TNA should be approached like a research that has to be conducted in a systematic and continuous manner by employing certain techniques. First level, organizational analysis examines company-wide goals and problems to determine where training is needed. Second level, task analysis examines tasks performed and knowledge, skills, attitude required to determine what employees must do to perform successfully. Third level, person analysis examines knowledge, skills and current performance to determine who needs training.

Logical Steps of Conducting TNA

The sequential activities of conducting TNA can be divided into five logical steps: (a) identify problem and needs, (b) determine design of needs analysis, (c) collect data, (d) analyze data, and (e) provide feedback. The logical sequential steps of TNA depicted on Fig. 2. First step, identify problem and needs i.e. determine organizational context (policy, goal, roles and responsibilities), perform gap analysis, and set objectives. Second step, determine design of need analysis i.e. determine target groups to be trained, interviewees, methods, and schedule, determine person in charge of TNA. Third step, collect data i.e. conduct interviews, administer questionnaires and surveys, review document on existing trainings, and observe people at work. Fourth step, analysis data i.e. conduct quantitative and qualitative analysis, draw findings, conclusion and recommendation on training contents, and write up a report. Fifth step, provide feedback i.e make a presentation and determine the next step for training.

Source Data of TNA

TNA data sources can be categorized according to three level of analysis i.e. organizational level, operational level, and individual level [8]. These sources of data can be used as indicators of training needs. The main sources and implication to training needs are shown in Table 1. At organizational level, we explain about organizational goals and objective, manpower/labor inventory, skills inventory and organizational climate indices. At operational level, we explain about job descriptions, job specification, performance standards, and review literature concerning job. Meanwhile at individual level, we explain about performance data, tests, attitude surveys, and assessment centers.

Need Analysis Method

A reference regarding need analysis methods is presented by [8]. He expressed concern regarding the use of such data in TNA on the grounds that the data had originally been collected for other purposes, and therefore, may not have been totally suitable and accurate for use in identifying TNA concerns such as: what is the performance problem, whose performance is affected, is it caused by the lack of KSAs, can it be solved by training, and which employees really 'need' to be trained?

Data collection and analysis are essential parts of TNA. TNA is optimized when a combination of data collection methods is used to analyze quantitative and qualitative data. Regardless of which methods are used to collect and analyze data, it is important to consider the reliability, validity and trustworthiness of the data. The following Table 2 shows advantages and disadvantages of Needs Analysis Methods. Selection of the methods should be done according to availability of time and manpower for conducting the survey.

It is recommended to combine several methods to quantitatively and qualitatively analyze the survey results At organizational level, we explain about organizational goals and objective, manpower/labor inventory, skills inventory and organizational climate indices. At operational level, we explain about job descriptions, job specification, performance standards, and review literature concerning job. Meanwhile at individual level, we explain about performance data, tests, attitude surveys, and assessment centers.

Table 1: Source of TNA Data

Data Sources Recommended	Training Need Implications
Organizational Level	
1. Organizational Goals and Objectives	Where training emphasis can and should be placed. These provide normative standards of both direction and expected impact which can highlight deviations from objectives and performance problems
2. Manpower/Labor Inventory	Where training is needed to fill gaps caused by retirement, turnover, age, etc. This provides an important demographic data base regarding possible scope of training needs
3. Skills Inventory	Number of employees in each skill group, knowledge and skill levels, training time per job, etc. This provides an estimate of the magnitude of specific training needs. Useful in cost benefit analysis of training projects
4. Organizational Climate Indices	These 'quality of working life' indicators at the organization level may help focus on problems that have training components.
Operational Level	
1. Job Descriptions	Outlines the job's typical duties and responsibilities but not meant to be all-inclusive. Helps define performance discrepancies
2. Job Specifications	Lists specified tasks required for each job. More specific than job descriptions. Specifications may extend to judgments of knowledge and skills required of job incumbents
3. Performance Standards	Objectives of the tasks of job and standards by which they are judged, and may include baseline data as well
4. Review Literature Concerning Job (examples: research in other industries, professional journals, PhD theses).	Possibly useful in comparison analyses of job structures but far removed from either unique aspects of the job structure within any specific organization or specific performance requirements
Individual Level	
1. Performance Data or Appraisals as Indicators of 'sickness'(examples: productivity, customer complaints, waste, product quality, and down	Include weaknesses and area of improvement as well as strong points. Easy to analyze and quantify for purposes of determining subjects and kinds of training needed. These data can be used to identify performance discrepancies.

Data Sources Recommended	Training Need Implications
time).	
2. Tests (Job knowledge, skills, achievement).	Can be tailor-made or standardized. Care must be taken so that they measure job-related qualities.
3. Attitude Surveys	On the individual basis, useful in determining morale, motivation or satisfaction of each employee.
4. Assessment Centers	Combination of several techniques into an intensive assessment programs.

Source:[8]

Table 2: Needs Analysis Methods

Advantages and Disadvantages of Needs Analysis Methods			
	Methods	Advantages	Disadvantages
Surveys/ Questionnaires	May be in the form of surveys or polls of a random or stratified sample or an entire population. Can use a variety of question formats: Open-ended, projective, forced-choice, priority ranking.	Can reach a large number of people in a short time. Are inexpensive. Give opportunity of response without fear of embarrassment. Yield data easily summarized and reported.	Make little provision for free response. Require substantial time for development of effective survey or questionnaire. Do not effectively get at causes of problems or possible solutions.
Interviews	Can be formal or casual, structured or unstructured. May be used with representative sample or whole group. Can be done in person, by phone, at the work site, or away from it.	Uncover attitudes, causes of problems, and possible solution. Gather feedback; yield of data is rich. Allow for spontaneous feedback.	Are usually time-consuming. Can be difficult to analyze and quantify results. Need a skillful interviewer who can generate data without making interviewee self-conscious or suspicious.
Performance Appraisals	May be conducted informally or systematically. Conducted by manager; appraisal	Indicate strengths and weaknesses in skills, and identify training and development needs.	Can be costly develop the system, implement the appraisals, and process the

Advantages and Disadvantages of Needs Analysis Methods			
	Methods	Advantages	Disadvantages
	<p>developed by HR.</p> <p>Should be conducted on a regular basis and separately from merit discussions.</p>	<p>Can also point out candidates for merit raises or promotions.</p>	<p>results.</p> <p>May enable managers to manipulate ratings to justify a pay rise.</p> <p>May invalidate the appraisal because of supervisor bias.</p> <p>May be prohibited for union employees</p>
Observations	<p>Can be technical, functional or behavioral.</p> <p>Can yield qualitative or quantitative feedback.</p> <p>May be unstructured.</p>	<p>Minimize interruption of routine work flow or group activity.</p> <p>Generate real-life data</p>	<p>Requires a highly skilled observer with process and content knowledge.</p> <p>Allow data collection only in the work setting.</p> <p>May cause “spied on” feeling.</p>
Tests	<p>Can be functionally oriented to test a board, staff or committee member’s understanding.</p> <p>Can be administered in a monitored setting or “take home”</p>	<p>Can be helpful in determining deficiencies in terms of knowledge, skills, or attitudes.</p> <p>Easily quantifiable and comparable.</p>	<p>Must be constructed for the audience and validity can be questionable.</p> <p>Do not indicate if measured knowledge and skills are actually being used on the job.</p>
Assessment Center	<p>For management development.</p> <p>Require participants to complete a battery of exercises to determine areas of strength that need development.</p> <p>Assess potential by having people work in simulated management situations.</p>	<p>Can provide early identification of people with potential for advancement.</p> <p>More accurate than “intuition.”</p> <p>Reduce bias and increase objectivity in selection process.</p>	<p>Selecting people to be included in the high-potential process difficult with no hard criteria available.</p> <p>Are time-consuming and costly to administer.</p> <p>May be used to diagnose development needs rather than high potential.</p>
Focus Group	<p>Can be formal or informal.</p>	<p>Allow interaction between</p>	<p>Are time-consuming for both</p>

Advantages and Disadvantages of Needs Analysis Methods			
	Methods	Advantages	Disadvantages
Discussion	<p>Widely used method.</p> <p>Can be focused on a specific problem, goal, task or theme.</p>	<p>viewpoints.</p> <p>Enhance “buy-in”; focus on consensus.</p> <p>Help group members become better listeners, analyze, problem solvers.</p>	<p>consultants and group members.</p> <p>Can produce data that is difficult to quantify.</p>
Document Review	<p>Organizational charts, planning documents, policy manuals, audits, and budget reports.</p> <p>Include employee records (accidents, grievances, attendance, etc...)</p> <p>Also include meeting minutes, program reports, and memos.</p>	<p>Provide clues to trouble spots.</p> <p>Provide objective evidence or results.</p> <p>Can easily be collected and compiled.</p>	<p>Often do not indicate causes of problems.</p> <p>Reflect the past rather than the current situation.</p> <p>Must be interpreted by skilled data analysis.</p>
Advisory Committees	<p>Secure information from people who are in a position to know the training needs of a particular group.</p> <p>Supply data gathered from consultants by using techniques such as interviews, group discussions, and questionnaires.</p>	<p>Are simple and inexpensive.</p> <p>Permit input and interaction of a number of individuals with personal views of the group’s needs.</p> <p>Establish and strengthen lines of communication.</p>	<p>Carry biased organizational perspective.</p> <p>May not represent the complete picture because the information is from a group that is not representative of the target audience.</p>

Source: [3]

III. CONCLUSION

TNA have become a popular and valuable tool in the human resource development profession. When properly designed and administered, a TNA will provide a detailed picture of an organization's skill, knowledge, and talent base while simultaneously focusing attention to areas where training programs are most needed or, depending on the nature of the business, required. This, in turn, permits the organization to allocate funds for training and development where they will have the greatest impact.

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