Needs Assessment in Training & Development

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The business world offers employees numerous examples of trainings which are sometimes conducted in work hours and some occupy weekends as well. However, training’s primitive roots go back to the ancient times. It is generally agreed today that since the beginning of the postmodern society and work environment, training and development of employees have become crucial for task management. On the one hand, organizations see skill and abilities as a resource; on the other hand, employees seek to thrive. Thus it can be claimed that this interaction point of intentions result in the development of trainings and development area.

In today’s conjuncture it has become more important because of the introduction of new technologies and rapidly changing environment. American Society for Training and Development reported that U.S. organizations spend more than $126 billion annually on employee training and development (Paradise, 2007). Importance of usage of new technology such as, new software, smartphones, tablets, new generation computers etc. led to organizations provide more training opportunities for employees. Nevertheless, it is scarcely possible to say that organizations spend money for trainings, which are directly related for jobs entitled as service sector jobs, rather than in manufacturing. Today’s competitive work environment requires employees to have resiliency across emotions, because most of the complaints are about the sense of stress, while doing the work.

It can be claimed that training in all levels may contribute to the effectiveness of the organizations, as well as to the individuals, and to the society. Firstly, training-related changes should bring about improved job performance, acquisition of new skills, communication and innovation. What is more, soft skill trainings should help people to have more self-efficacy and the sense of empowerment. Secondly, training may provide organizations with opportunities such as effectiveness, profitability, sales, employee and customer satisfaction. Thirdly, it can be claimed that the organizations today might use trainings as a tool to contribute to the society. Especially economists coined the terms “human capital” and “capital formation in people” in referring mainly to schooling and on-the-job training (Wang, Dou, Li, 2002). They believe that investment in human capital is fundamental for achieving social prosperity. Governments support
such initiatives which can be conducted by employers, trade unions, professional bodies and other stakeholders in business sector, too.

One of the prominent examples is “Investors in People”, which gives awards to organizations that implement excellent practices in the training of individuals to achieve business goals. Although they do not give a certain method or means, they provide a framework to help organizations to find the most suitable means for achieving success through people (Investors in People Standard, 2006).

In the achievement of objectives, the well-organized training programs may play an important role and it can be stated that needs assessment provide a rational framework for the quality of the training. Therefore, it is important to shed light on needs assessment concept.

Need assessment refers to a process of collecting information about an expressed or implied organizational need that could be met by conducted training (Barbazette, 2006). It is done in order to find out answers to such questions:

(i) Why is training conducted?
(ii) Who is involved in the training?
(iii) How can the performance deficiency be fixed?
(iv) What is the best way to perform?
(v) When will the training take place?

By performing a need assessment, organizational assets are protected and the resources are used properly, for it assists to determine whether training solves the problem or not. Otherwise organizations may waste their time and resources.

Needs assessment is perceived as an important step in training and consequently in performance improvement; because it precedes the design and development of any human resource development. By conducting the needs assessment processes, organizations put people-related problems and performance improvement opportunities under the scope and analyze both in response or ongoing learning efforts. Also needs assessment can focus on individual level, team or group level, or even an entire organization level.
As trainings have benefits for society, need assessment can also focus on people-related problems and improvement opportunities that are an ordinary part of the developments of organizations and communities. Regardless of the conductor who works as internal or external consultant, need assessment provide “insider” information in order to diagnose and solve the problems inside the organization (Gupta, Sleezer, Russ, 2007).

A) Training Program Development Process in Theory

1. Needs Assessment Phase

According to McGehee and Thayer (1961), the training needs steps are organizational support, organizational analysis, requirement analysis, needs assessment components, and finally person analysis.

   a. Organizational Support Phase

The assessment stage starts with the organizational support phase which emphasizes establishing relationship with top management and other members in order to be congruent in objectives and strategies in needs assessment. For instance, Bennis (1969) indicated that if the top leadership does not clearly understand the goals and strategies of needs assessment, then the procedure may become vulnerable to the natural ups and downs that accompany any organizational intervention (Bennis, 1969). Besides, it is important to note that if unrealistic expectations exist, they should be negotiated at the outset of the process, otherwise they may be a source of disappointment.

In addition, establishing relationships with members of the organization is very important. At this point, a hierarchical umbrella of acceptance is a crucial phenomenon for the process through which involvement and commitment of all key people in the organization is provided, because it is necessary to have explicit understanding of what is going to be accomplished by the needs assessment (Goldstein, 1993). A liaison team may be formed, which provides a two-way communication network in order to increase people’s motivation and so the success of the study (Glasser & Taylor, 1973). This can serve as a “communication pipeline” and function by increasing the participation and involvement of organization members in the assessment process via gaining support.
Members of liaison team should have representative power and they can be recognized the leaders of their unit and utilize solution-focused methods for the sake of their company (Taştan, 2014).

The study of Lancaster & Di Milia (2014) shows the importance of organizational support in training and development. They found out that 79.16% of the respondents of their study indicated that providing high-quality and relevant training programs contributed to the increase of their sense of organization’s support for learning. Besides, they reported that the credibility of the instructors and their giving real life cases during the training and the quality of the content increase employees’ self-confidences in work life. These factors motivated them to attend in the training programs, anticipated gaining value form the program. In addition, the participants also reported that the alignment between course content and their work contributed positively to their perception of organizational support, because they viewed the process as the organizations’ encouragement of the transfer of the new skills.

Finally, the study of Lancaster & Di Milia (2014) also indicated that the organization should be more active in reinforcing their learning after the completion of the program by making use of role modelling, mentoring and providing a better learning culture; and all of them, according to the researchers, are some of the elements of perceived organizational support. The findings of Lancaster & Di Milia (2014) are in the same direction what we discussed in the lecture. It is discussed in the lecture that some managers may assume that success would always follow the implementation of a well-conceived program. However, this may not be the case for all the time. Or, the top managers may not clearly understand the goals and strategies of training, and then the training may become vulnerable to ups and downs of the organizational intervention. Thus, it can be claimed that training is not the only answer in the transfer of learning or in the creation of supportive organizational learning culture. They must be accompanied by the perception of organizational support.

b. Organizational Analysis Phase

Secondly, organizational analysis is fulfilled in order to recognize the fact that training systems operate well within organization. Schein (1980, as cited in Goldstein, 1993) defined organization as a planned coordination of the activities of a number of people for the achievement of some
common, explicit purpose of goal, through division of labor, and function and through a hierarchy of authority and responsibility.

After understanding the scope of the concept of organization, the concept of organizational analysis can be discussed. Goldstein (1993) defines it as an examination of system-wide components of the organization that may affect training program beyond task and person analyses. Organizational analysis phase starts with the examination of short & long term goals of organization, as well as trends that are likely to affect these goals. In line with this, Ostroff & Ford (1989, as cited in Goldstein, 1993) indicated that it is important to consider the goals from each operational level: the perspectives of individual worker, work group and organization.

What is more, organizational analysis may show the quality of organizational support for the training. For this reason, the training program and the supportive systems of the organization must be congruent.

For instance, the study of Fleishman et al. (1955) is one of the first studies to suggest the difficulties that arise when training program and the working environment promote different values. They suggest that the climate on the job is a critical component in determining whether the knowledge and skills gained in the program will be transferred into the job environment. Training systems which do not fit into the organization’s goals and plans would not make sense (Ostroff & Ford, 1989). This analysis may produce useful information for the organization, which can be utilized in specifying goals, determining training climate and identifying external (legal) constraints (Goldstein, 1993). Thus, organizational analysis may play a crucial role in the creation of supportive work environment, which promotes a positive transfer climate in the workplace.

c. Task & KSA Analysis Phase

The third stage is the task & KSA analysis phase which describes the steps that must be considered before collecting information concerning the tasks and knowledge, skill and abilities required to perform the job. Task analysis indicates a statement of activities or work operations performed on the job and the conditions under which the job is performed.
Firstly, the tasks should be described clearly, which composes of job summary statements describing the major focus and duties of the job. If the target jobs are defined beforehand, then methodological options, participants, points of contact can be defined more easily. Here, the development of task statements can be realized by means of interviewing panels, subject matter experts (SMEs). After the development of task statements, it is the sequence for the development of task clusters, which provides an organized way of the information about the tasks, which in turn, helps to the increase of psychological fidelity (Goldstein, 1993). As a result of task analysis, a statement of work operations is obtained. These statements clarify which job is comprised of which work operations. Here, the important issue is that these statements describe the task and position, not the employee, individually. Task analysis starts with describing task, then continues with detailed task specification, task scaling on various dimensions such as clarity, frequency, and occurrence and so on (Zemke & Kramlinger, 1982).

KSA analysis describes the knowledge, skills and abilities in order to perform the job. The basic purpose of knowledge and skills assessment is actually twofold: (i) to identify the knowledge and skills that people must possess in order to perform effectively on the job, (ii) to prescribe appropriate interventions that can enclose the gaps between the knowledge and skills (Gupta et al., 2007). Gupta et al. (2007) also states that knowledge and skill assessment is made up of five phases as following: 1-gathering preliminary data, 2-developing a work plan, 3-performing training requirements analysis, 4-analyzing data, 5-preparing and presenting a report.

In the KSA analysis, the degree of which work operation is important and frequent is determined via some methods such as surveys and interviews. Based on the results of the analysis, the required KSA for each task and job is determined and made ready for training.

**d. Person Analysis Phase**

On the next stage, person analysis phase, people who need which training is determined via assessing how well employees actually perform the KSAs required by the job. Here, it is important to note that the emphasis is not on determining which KSAs are necessary, but on assessing how well the actual employees perform the KSAs required by the job.

The development of the measures of criteria that are indicators of performance should be achieved in order to perform person analysis. Sources of information available for individual
analysis include performance evaluation and goals, performance problems (productivity, absenteeism etc), observation, work samples, interviews, questionnaires, attitude surveys and aptitude tests (Miller and Osinski, 2002).

2. Instructional Objectives

Instructional objectives involve the description of objectives to be achieved by the trainee upon the completion of the training program. In addition, the specification of the objectives may provide input for the design of the training program as well as for the measure of the training’s success that will be used to judge program’s adequacy.

As a result of assessment phase, all the necessary KSAs for tasks and methods, present which training should be designed and other required information is yielded. These all may picture the training program and describe the objectives to be achieved. These objectives provide input for the design of the training program as well as the criteria that will be used to judge program’s adequacy (Goldstein, 1993).

Well-written instructional objectives can also specify what the trainee can accomplish after being successful at the training. From these objectives, the designer can determine the appropriate learning environment and the criteria for examining the achievement of the objectives (Goldstein, 1993).

C) Training Evaluation Phase

a. Overview of Evaluation

Evaluation is defined by Goldstein (1993) as the systematic collection of descriptive and judgmental information necessary to make effective training decisions related to the selection, adoption, value and modification of various instructional activities. It can be claimed that Goldstein’s definition of evaluation uses descriptive and judgmental information to shed light on two important aspects: “proving the quality” and “improving the quality” of a training program, as well as “determining the minimum acceptable performance limits for trainees” after the training program. Therefore, there must be some criteria to be described in order to decide either to prove the quality or to improve the quality. In terms of the trainee perspective, there must be some criteria, too, to demonstrate the trainee’s skill and the conditions under which they are to perform at least the minimum expected performance levels in the organization, at the end of the
implementation of the training program. Thus, as Goldstein (1993) pointed out, evaluation is not a technique to decide a training program good or bad, instead to decide whether the training program brings about desirable outcomes both in terms of program quality and employee performance contribution.

Evaluation, as a process, can be discussed through three different settings: the context of a monitoring, judgments and review. For instance, Tipple et al. (1989) described the context of monitoring as the process of systematic collection and presentation of information in relation to specific objectives. In other words, the measurable indicators of success are formulated in monitoring process by means of collecting and presenting the information. They defined the judgment process as a stage where value judgments of a program are determined by means of analyzing the collected information. Finally, they described the review step as the use of evaluation data to shed light on the progress or to inform decisions for planning (Tipple, 1989).

Evaluation can be described as a planned action where the target areas are agreed by the parties of evaluation, if the criteria for evaluation of the success are explicit; when an evaluation plan shows data collection procedures and the source of information, and if appropriate evaluation instruments are utilized for data collection.

In terms of the criteria; specific target areas and priorities are determined upon which evaluation criteria and performance indicators are formulated and agreed in the planning stage of the training. In terms of evaluation plan, the key aspect is the detailed planning of the steps and role divisions based on aims and objectives. As for methods and instruments, the instruments should be consistent with predetermined criteria and appropriate for the methods of data collection (Morgen, 1992, as cited in Roger & Badham, 1992).

**b. Basic Concepts in Understanding Evaluation**

When considering evaluation of a training program; some parameters must be kept in mind and some concepts should be clarified. In terms of the parameters, three important points come into prominence: firstly, the selection of target areas and determination of evaluation criteria; secondly, the control of evaluation instruments and data collection methods; and thirdly, the
judgments of the outcomes on the basis of predetermined criteria. In other words, evaluation involves a sound planning process, which starts with the clarification of objectives, from which performance indicators are formulated. However, the planning process is not complete until data collection is to be realized by means of evaluation instruments.

As for some basic concepts in comprehending evaluation: training effectiveness, training outcomes, objective, aim, strategy, performance indicators, evaluation design and evaluation instruments, impact assessment, utility assessment and monitoring should be taken into consideration (Rossi & Freeman, 1993).

**Training Effectiveness**: it is the benefits that the company or the trainees obtain from the training, which are usually evaluated by making use of Kirkpatrick’s training evaluation model.

**Training Outcomes (criteria)**: they are the measures that the trainer and the company use to evaluate training programs. Training criteria go hand in hand with training objectives.

**Objective**: it is a clear and concise statement of what is to be achieved relevant to achieving the aim. While aims are defined in broad terms, objectives are defined quite specifically. In other words, they must be Specific, Measurable, Agreed and Achievable, Relevant and Timed (SMART model).

**Aim**: it is a general statement of intention that outlines the ultimate goal without specifying the stages.

**Strategy**: it is a plan outlining how a specific objective or a series of objectives will be achieved. Strategy shows what is to be done—how, by whom and when.

**Performance indicators**: the signals of success which will be used to indicate whether the objectives have been achieved by the trainee. They do not show the general measure of performance, rather they indicate the extent of progress made in one area.

**Evaluation design**: it is the collections of descriptive and judgmental information to determine the effectiveness of a training program.
**Evaluation instruments**: They are the tools which specify what information where and how to be collected. They are the sources of information.

**Impact assessment**: it is the evaluation of whether and to what extend a training program causes changes in the desired direction among a target population.

**Utility assessment**: it is the study of effectiveness (impact) or efficiency (cost-to-benefit ratios or cost effectiveness) of the program.

**Monitoring**: it is the assessment of what extend a training program is undertaken consistent with its design and of its implementation plan; and to what extend the program is directed at the appropriate target population.

(Rossi & Freeman, 1993)

c. The Purpose & Benefits of Evaluation

The purpose of evaluation is explained as providing “feedback” on the effectiveness of the training activities, as “control” over the provision of training and “intervention” into the organizational processes that may affect training for decision making (Goldstein, 1993). On the other hand, Roger & Badham (1992) indicates two main purposes of evaluation: “accountability” and “development”.

According to Roger & Badham (1992), *accountability* refers to proving the quality of the training program, which indicates that funding is being properly used to maintain or improve the standards. Raising the standards is primary function of accountability. Besides, they define *development* as assistance in improving the quality of the training program. What is more, Rossi & Freeman (1993) stated that evaluations undertaken for a variety of reason; for instance, to judge the worth of ongoing programs and to estimate the usefulness of attempts to improve the program.

Goldstein (1993) mentioned about some benefits of evaluation. As discussed in the lecture, evaluations can contribute to the improvement of the quality of the training programs, where the training activities can be discriminated as being worth of support or as being dropped on the basis of the findings of evaluation. Besides, the outputs of the evaluation may give a lead to trainers to be able to relate the inputs to the outputs of the study. Finally, Goldstein (1993) indicated that the findings of evaluation may demonstrate the evidence of the training and development activities to the organization.

**d. Barriers to Evaluation**

Evaluation requires systematic and planned sets of actions, and therefore the success of the evaluation may depend on many factors. For instance, Groove & Ostroff (1990) discussed some obstacles on implementing a sound training evaluation. They indicated that top management may not emphasize training evaluation even if they look like they are interested in evaluating all aspects of the practices. Besides, the training directors often may not have the necessary skills to conduct evaluation properly. What is to be evaluated and which questions to be answered at the end of the evaluation process might not be clear to HR training specialist, too. What is more, they underlined a common conception of risky and expensive side of evaluation process (Groove & Ostroff, 1990, as cited in Goldstein, 1993). As discussed in our lecture, there are some empirical studies displaying that 42% of 611 companies did not evaluate the effectiveness of their long term programs, while 32% of them did not evaluate even the short course programs.

Similarly, most of the evaluations focused on trainee reactions to the training program rather than determining whether educational attainments are obtained or transferred into the workplace or job
performances are positively impacted, according to the discussions taken place in the lecture (Bal Taştan, 2014).

Nevertheless, Roger & Badham (1992) described how to cope with some of the barriers in their book. For instance, firstly, they indicated that limiting the evaluation to a few specific focuses, meaning that setting achievable and reliable measurable objectives are crucial in the process. Secondly, the underlined the importance of to be clear about deciding what information is necessary, and the role of collecting the essential information enthusiastically. Thirdly, they pointed out the maximum use of any evaluation data before rushing into designing data collection instruments such as designing questionnaires or making interview. Fourthly, they indicated the importance of avoiding questionnaires or interview designs which require complex and time-consuming analysis techniques. Finally, the authors stated that the purpose of evaluation should be clearly understood and its potential value to the employee and the organization should be comprehended. In order to attain all those requirements, they underlined the importance of the outcomes’ being valuable to all concerned parties, of making valid judgments supported by evidence, setting verifiable and feasible processes for being cost-effective in terms of time and resources (Roger & Badham, 1992).

Considering all of the above, it is important to note that evaluation does not solve all the training problems. Its complex nature should not be underestimated.

e. Evaluation in Action: Formative & Summative Evaluations

In general, there are two types of approaches in evaluation of a training program. The first one is “formative evaluation”. It is evaluation activities undertaken during the design and pretesting of the programs to guide the design or monitoring processes.
Making formative evaluation during the implementation of the program is crucial, because it helps to ensure that the training program is well organized and runs smoothly, as well as the program satisfies the trainee’s needs and expectations.

Besides, it is an important source of data to monitor the program, if necessary, to make sure that training program is undertaken consistent with its design and of its implementation plan and the target population is directed appropriately.

As for “summative evaluation”, it is a method of making judgment about the worth of a training program after the implementation, and measuring the impact and the effectiveness of the program. Unlike the formative evaluation, which focuses on the process; summative evaluation focuses on the outcomes and aims to find out whether the training program has reached its objectives, and whether the program has created impact on the trainee and the organization. Also, it allows the program developers to have a chance of improving the future project designs and implementation methods (Rossi & Freeman, 1993).

Moreover, there are three important steps to be considered throughout the evaluation of a training program; which are the plan, the process and the product (Bal Taştan, 2014). In the first step; the clarification of the objectives of the training, the selection of the participants appropriately, the set of reasonable timeframe and the determination of suitable training methods are indispensable. The thorough set of the planning step is actually related with what the process evaluation proposes for. In the evaluation of the process, the stages in the planning steps are to be confirmed by the program designers by making use of observations, questionnaires and staff meetings. As for the third step, the products of the training are evaluated by considering the predetermined criteria. At this point, it is important to note that Kirkpatrick’s training evaluation model is very helpful in evaluating the outputs of the training program (Kirkpatrick, 1959, as cited in Goldstein, 1993). Kirkpatrick’s evaluation model involves four levels, which are “reaction”, “learning”, “behavior”, “impact”.

The first level, reaction, deals with the participants’ reaction to the intervention, meaning that to what extend the trainees feel that the training was successful and met their expectations. The second level, learning, deals with to what extend the skills, knowledge and attitudes have changed. But the measurement of these areas both before and after the training is important. The
third level, behavior, deals with whether the trainees put any of the learning to use in their workplace or whether they are aware of their behavior change.

At this point, it is important to note that organizational support and providing a suitable environment to transfer the attainments of the training in workplace is crucial.

As Lancaster & Di Milia (2014) indicated that the organization should be more active in reinforcing the learning after the completion of the program by making use of role modelling, mentoring and providing a better learning culture (Lancaster & Di Milia, 2014). Otherwise, the transfer of the training and the internalization of the objectives may not be taken place. The fourth step, results, deals with what results have been achieved and what can be attributed to the training. This step focuses on whether employee retention and production are increased.

![Kirkpatrick-Phillips model for measuring learning results](image.png)

Figure: Kirkpatrick-Phillips model for measuring learning results
Besides, as discussed in the lecture, return of investment (ROI) and wider contribution of the training should be taken into consideration, as well. ROI deals with the identification and comparison of learning benefits with cost. By wider contribution, it is meant that to what extend has the participants’ long term potential has been increased by the training attainments (Bal Taştan, 2014). A thorough understanding of how effective a training was and how it can be improved in the future can be achieved by going through the four steps of Kirkpatrick model; however, it should be kept in mind that the model is not practical in all situations, because measuring the effectiveness of training with the model can be time-consuming.
References


