Chapter 1

Training and Development – An Overview

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1.1 Introduction

Denis Diderot, a French philosopher and literate of the Age of Enlightenment, wrote the following:

"Education shouldn't be finished when an individual leaves school, it should encompass all the ages of life...to provide people in every moment of their life with a possibility to maintain their knowledge or to obtain new knowledge"

Today, in a more and more global, complex and turbulent environment, knowledge is the only reliable source of competitive advantage. It is not about knowledge for the sake of knowledge, but rather knowledge according to the needs, applicable knowledge, knowledge to create innovation and competitive advantage. Since the organizational knowledge is largely located inside the human mind, as carriers of knowledge and activities, human resources are becoming the key factor of business success. Obtaining knowledge, learning, education, all could have a real effect on the quality of labour only if they are harmonized with the needs of a particular organization, its goals and the goals of its employees.

Organizational development is always conditioned by human knowledge and skills. Hence employee education and training are becoming an optimal answer to complex business challenges, and the management of human resources are taking central role in modern management. Through the process of employee training and development, the management of human resources provides constant knowledge innovation, creates conditions for mutual knowledge and experience exchange and proactive behaviour, in this way contributing to competitive advantage and satisfaction of all participants in business procedures.
All organisations employing people need to train and develop their staff. Most organisations are aware of this requirement and invest effort and other resources in training and development. Such investment can take the form of employing specialist training and development staff and paying salaries to staff undergoing training and development. Investment in training and development entails obtaining and maintaining space and equipment. This means they are required to give less attention to activities that are obviously more productive in terms of the organisation’s main business. However, investment in training and development is generally regarded as good management practice to maintain appropriate expertise.

Employee training and development does not imply only obtaining new knowledge, abilities and skills, but also the possibility to promote entrepreneurship, introduce employees to changes, encourage the changes of their attitude, introduce the employees to important business decisions and involve them actively in the process of decision making.

The choice of educational contents and educational methods, and the efficiency of educational effectiveness control depend on clearly defined educational goals and needs, answers to the questions of which knowledge is necessary to realize the strategy and the survival of the organization in general, which employees need to possess this knowledge and will this knowledge solve certain problems.

1.2 What is Training?

*Definition of Training by Different Authors*

According to Richard P. Calhoon training is – “the process of aiding employees to gain effectiveness in their present and future work.

Dales S. Beach defines training as “the organized procedure by which people learn knowledge and/or skills for a definite purpose”
Michael Armstrong describes it as “the systematic development of the knowledge skills and attitudes required by an individual to perform adequately a given task or job”

Robert Mathis and John Jackson have defined training “as a learning process whereby people acquire skills, concepts, attitudes or knowledge to aid in the achievement of goals”

Avice Saint states “Training includes any efforts within the organization to teach, instruct, coach, develop employees in technical skills, knowledge, principles, techniques and to provide insight into and attitude towards the organization”

According to Edwin B. Flippo, “Training is the act of increasing the knowledge and the skills of an employee for doing a particular job”

John P. Kenny and others (1979), training an individual means helping him to learn how to carry out his present job satisfactorily.

Training refers to the methods used to give new or present employees the skills they need to perform their jobs

Training refers to a planned effort by a company to facilitate employees’ learning of job-related competencies. These competencies include knowledge, skills, or behaviours that are critical for successful job performance in the immediate term or near future. This is in contrast with development, which is training that provides employees with competencies for anticipated future jobs and roles. The goal of training is for employees to master the knowledge, skill, and behaviours emphasized in training programs and to apply them to their day-to-day activities.

In-service Training Programme

In-service training is the training given by the employer to an employee to enable the individual to execute a specific activity efficiently. It is part of continuing education. Inservice training is deliberately planned to meet the
needs of the employer in order to make up deficiencies in technical and scientific information in an employee, such as teaching of techniques and procedures that the employee has to execute in her/his job (Douglas, 1996:281).

Booyens (1998:384) describes in-service training as the training of an employee while she/he is rendering a service to the clients in an institution and includes the following: training; updating knowledge; educating; standardising procedures; correcting shortcomings; keeping staff informed of company policies; motivating staff to develop both personally and professionally; informing the individual about the present requirements of the job.

**Continuous learning:** A learning system in which employees are required to understand the entire work system including the relationships among their jobs, their work units, and the company. Also, employees are expected to acquire new skills and knowledge, apply them on the job, and share this information with fellow workers.

**Orientation Training:** Recruiting and selecting high-potential employees don’t guarantee they will perform effectively if they have no knowledge of what to do or how to do. Without basic information on things like rules and policies, new employees may make time consuming and dangerous errors. Therefore it is important to orient and train them. Furthermore orientation is also about making the new employee feel welcome and part of the team.

A successful orientation should accomplish four main things: The new employee should feel welcome and at ease; he or she should understand the organization in a broader sense (past, present, culture and vision of the future), as well as key facts such as policies and procedures; the employees should be clear what is expected in terms of work and behaviour; and the person should have begun the process of becoming socialized into the firm’s way of acting and doing things.

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1.3 Who Provides Training?
In most companies, training and development activities are provided by trainers, managers, in-house consultants, and employee experts. However, as the snapshot of training practices suggests training and development activities are outsourced. **Outsourcing** means that training and development activities are provided by individuals outside the company. Training providers outside the company include universities, community and junior colleges, technical and vocational institutions, product suppliers, consultants and consulting firms, unions, trade and professional organizations and government organizations.

1.4 Who Is In Charge of Training?
In small companies, training is the responsibility of the founder and all the employees. When organizations grow to 100 employees, typically someone within the company takes charge of human resources as part of their job or their sole responsibility. At this point, training becomes one of the responsibilities of the employee in charge of human resources. Training is one of several functions that human resource departments and professionals provide. Other functions include staffing (recruitment and selection), compensation, employee relations, health and safety, equal employment opportunities, and human resource planning.

In medium to large organizations, training can be the responsibility of human resource professionals or can come from a separate function known as human resource development or organizational development.

**Human resource development** refers to the integrated use of training and development, organizational development, and career development to improve individual, group, and organizational effectiveness.

Staff development activities are normally carried out for one of the three reasons:

To establish competence

To meet new learning needs
To satisfy interests that the staff may have in learning in specific areas.

Keep in mind that regardless of who is responsible, in order for training to be successful, employees, managers, training professionals, and top managers all have to take ownership of training.

### 1.5 Objectives of Training

O. Jeff Harris Jr. observes 'Training of any kind should have as its objective the redirection or improvement of behaviour so that the performance of the trainee becomes more useful and productive for him and for the organization of which he is a part. Training normally concentrates on the improvement of either operative skills (basic skills related to the successful completion of the task), interpersonal skills (how to relate satisfactorily to other) decision making skills (how to arrive at the most satisfactory causes of action) or a combination of these.

The need for training of employees would be clear from the observations made by different authorities:

1. To increase productivity: Instruction can help employees increase their level of performance on their present assignment. Increased human performance often directly leads to increased operational productivity and increased company profit. Again, increased performance and productivity, because of training, are most evident on the part of new employees who are not yet fully aware of the most efficient and effective ways of performing their jobs.

2. To improve quality: Better informed workers are less likely to make operational mistakes. Quality increases may be in relationship to a company product or service or in reference to the intangible organisational employment atmosphere.

3. To help a company fulfil its future personnel needs: Organisations that have a good internal education programme will have to make less drastic manpower changes and adjustments in the event of sudden personal alterations. When the need arises, organisational vacancies can more easily be staffed from internal sources if a company initiates...
and maintains an adequate instructional programme for both its non-
supervisory and managerial employees

4. To improve organisational climate: An endless chain of positive
reactions results from a well-planned training program. Production
and product quality may improve; financial incentives may then be
increased, internal promotions become stressed, less supervisory
pressure ensure and base pay increases result. Increased morale may
be due to many factors, but one of the most important of these is the
current state of an organization’s educational endeavour.

5. To improve health and safety: Proper training can help prevent
industrial accidents. A safe work environment leads to more stable
attitudes on the part of the employees. Managerial mental state
would also improve if supervisors know that they can better
themselves through company designed development programs

6. Obsolescence prevention: Training and development programs foster
the initiative and creativity of employees and help to prevent
manpower obsolescence, which may be due to age, temperament or
motivation, or the inability of a person to adapt himself to
technological changes

7. Personal Growth: Employees on a personal basis gain individually from
their exposure to educational experiences. Again management
development programs seem to give participants a wider awareness,
an enlarged skill and enlightened altruistic philosophy and make
enhanced personal growth possible.

1.6 Developing a Training Program

The following plan outlines the sequence that should be used in
developing a training program:

1. Identify the desired knowledge or skills that the staff should have
2. Identify the present level of knowledge or skill
3. Determine the deficit of desired knowledge or skills
4. Identify the resources available to meet the needs
5. Make maximum use of available resources
6. Evaluate and test outcomes after use of resources

1.7 Stages in Designing a Structure
1. Review the training objectives
2. Determine appropriate learning activities
3. Assess training times
4. Construct the timetable
5. Brief the trainers
6. Organise the preparation of material and equipment

1.8 Key factors of a Training Program
1. The Learner: The pitch of the program is to be tuned to the learner. This is to be achieved when the program is designed. For achieving this, the learners' background, age, past experience, prior learning and educational level of the learners are all important. This will facilitate the trainer to have a feel of selecting the method of training.
2. The Trainer or Facilitator: The learners training is facilitated by the trainer. The level of trainer's skill, knowledge and ease with which he could adopt himself to the different methods of training play a critical role.
3. The learning environment: The learning environment means the physical environment where learning will take place.
4. Learning characteristics: The learning characteristics like motivation, individual differences, scale of learning, interference while learning, transfer of learning to the real work area, knowledge of results, rewards, trial error, discovery insight, period of learning, structured learning play a significant role in their application to the design of training.
5. Training resources and training policies: A cost-benefit analysis is one of the important aspects of training. The benefits of training must outweigh the costs. However issues like top management
commitment, budget, organizational culture provide opportunity or threat for training initiative.

1.9 Evaluation of training

Evaluation is the collection of analysis and interpretation of information about any aspects of a programme of education or training as part of a recognised process of judging its effectiveness, its efficiency and any other outcomes it may have. Mary Thorpe

Training evaluation means the systematic collection of data relevant to the selection, adoption, value or modification of workplace learning activities.

Training evaluation provides a way to understand the investments that training produces and provides information needed to improve training. Training evaluation involves both formative and summative evaluation. Formative Evaluation refers to the evaluation of training that takes place during program design and development. That is, formative evaluation helps to ensure that:

1. The training program is well organized and runs smoothly.
2. Trainees learn and are satisfied with the program.

**Formative evaluation** provides information about how to make the program better and usually involves collecting qualitative data about the program. Qualitative data includes opinions, beliefs and feelings about the program. Formative evaluations ask customers, employees, managers, and subject-matter experts their opinions on the description of the training content and objectives and on the program design. These people are also asked to evaluate the clarity and ease of use of part of the training program that is provided to them in a way that it will be delivered (e.g. online, face to face, video). The formative evaluation is either conducted individually or in groups before the program is made available to the rest of the company. Trainers may also be involved to measure the time requirements of the
program. As a result of the formative evaluation, training content may be changed to be more accurate, easier to understand, or more appealing. The training method can be adjusted to improve learning (e.g., provide trainees with more opportunities to practice or give feedback). Also, introducing the training program as early as possible to managers and customers helps in getting them to buy into the program, which is critical for their role in helping employees learn and transfer skills, and allows their concerns to be addressed before the program is implemented.

Summative evaluation refers to evaluation conducted to determine the extent to which trainees have changed as a result of participating in the training program. That is, have trainees acquired knowledge, skills, attitudes, behaviour, or other outcomes identified in the training objectives? Summative evaluation may also include measuring the monetary benefits (also known as return on investment) that the company receives from the program. Summative evaluation usually involves collecting quantitative (numerical) data through tests, ratings of behaviour, or objective measures of performance of sales, accidents, or patents.

1.10 Evaluation Criteria

The criteria for evaluation depends on the programme, the organisation and the objectives, resources needed, cost of conducted programme and the results expected out of it. The following general criteria may be used for evaluating a training programme.

   a. Significance: the extent, to which the training, if successfully carried out, will make an original and important contribution.

   b. Approach: the extent to which the conceptual framework, design, methods and analysis are properly developed, well integrated and appropriate to the aims of training.

   c. Feasibility: the likelihood that the proposed work can be accomplished through the training by the organisers and the adequacy of plans for the recruitment and retention of human resources where applicable.
d. Data: the appropriate use of data, time needed for collection and analysis etc.

e. Personnel: the following will be used to evaluate trainers-
   Do the personnel have appropriate background?
   Do they have appropriate skills?

f. Budget: the following will be considered in evaluating the financial resources-
   Are the funds requested appropriate to the design, the infrastructure, to the trainers and trainees?
   Is there adequate written justification for the proposed expenditure?

1.11 Types of Evaluation Instruments

Data gathering device administered at different stages of training is called an evaluation instrument. Some common categories are as follows:

a. Questionnaire/Survey: It is the most common form of programme evaluation. The questionnaire contains five basic types of questions- Open ended, checklist, two-way, multiple choice, ranking scales. The questionnaire has advantages like efficiency of cost, increased honesty due to anonymity, confidentiality. It also suffers from certain limitations like inaccuracy of data, not very encouraging return rate.

b. Interview:
   Receiving participants' feedback through interview is popular among lower level workers who are not comfortable with reading and writing methods. Interview enjoys advantages like flexibility, clarification opportunity and personal contact. It also suffers from limitations like high cost, extensive time period, no anonymity and irrelevant data.

c. Test: Pre and post course comparison using tests to measure knowledge level increase are very common. Usually testing involves written tests, which test the knowledge of the trainee and performance test which allows the trainee to exhibit a skill that is learnt in training program. Tests are not only useful to measure
learning outcomes, but also used as instructional tools to modify content for future courses. Low cost, quick processing, ease of administration are some of the advantages of written tests. Psycho threatening, low relation to job performance, cultural bias are some of its limitations.

d. Focus group: The focus group is a small group discussion conducted by an experienced facilitator, designed to solicit qualitative judgement of the trainees on the programme. It is an effective method for generating new ideas, it is inexpensive and can be quickly organised. The method will be effective depending on the selection of the trainees.

e. Observing the participants: Measuring behaviour changes in a non-threatening environment is possible through observation. The observer may be the trainee’s supervisor, fellow trainee or one of the training staff.

f. Performance Record: It is secondary data available with the department which is readily used for evaluation purposes. Advantages like reliability, objectives, ease of use, high job relevance could be attributed to using this method. It suffers from limitations like system shortcomings, data not in readily usable form, etc.

1.12 Models of Training Evaluation

The most common question asked to a trainer at the end of the training cycle is “How effective was the training program/course?” How does the trainer conclude whether those trained-

Are better informed and equipped for their jobs?
Are able to perform better after training?
Are able to utilize that training for improving their performance?
Especially when the results of training do not accrue immediately after training and take longer to manifest themselves.
Based on the criteria and approach to evaluation, many authors have suggested evaluation interventions at different stages of the training cycle. 

1.12.1. Kirkpatrick’s design for Evaluation

The most well-known frame for classifying the area of evaluation was developed by Kirkpatrick and contains four levels of evaluation.

a. Reaction: Reaction is the impression of the trainees about the program, materials, instructors, infrastructure, methodology, content.

b. Learning: The level measures the learning of principles, facts, techniques and skills imparted in a program. These measures are to be objective and quantifiable.

c. Behaviour: The extent to which skills and knowledge learnt in the training programs are translated as job performance is measured at this level. Observations by the supervisors or peers, before and after training comparisons, self-assessments are the ways in which evaluation takes place.

d. Results: Evaluation of results involves monitoring organizational effectiveness factors such as cost reduction, output quality and quality of the product.

1.12.2 Kaufman’s Five levels of Evaluation of Training Impact

Kaufman has expanded the definition of Level 1 of Kirkpatrick and added Level 5 by addressing societal issues.

a. i) Enabling: Availability and quality of human, financial and physical resources input.
   ii) Reaction: Methods, means and process acceptability and efficiency

b. Acquisition: Individual and small group mastery and competency.

c. Application: Individual and small group(products) utilization within the organization.

d. Organizational output: Organizational contribution and payoffs

e. Societal outcomes: Societal and client responsiveness, consequences and payoff.
1.12.3 Phillip’s Five Level ROI Framework to Evaluate Training Impact

The return on investment model is based on the Kirkpatrick evaluation model. Phillip added an additional step of ROI, which provides a monetary valuation of the training impact. The ROI method converts qualitative measures and uses a conservative approach to the estimation of the figures. These are then given a monetary value, so the benefit can be reasonably assessed. Phillips (2002) maintains that it is normally only calculated for the first year, because if the benefits are not quickly realised then it is unlikely that they ever will.

a. Reaction and planned action: Measures participant’s reaction to the programme and outlines the specific plans for implementation.
b. Learning: Measures skills, knowledge or attitude changes
c. Job Application: Measures change in behaviour on the job and specific application of the training material
d. Business results: Measures business impact of the programme
e. Return on investment: Measures the monetary value of the results and costs for the programme, usually expressed as percentage

1.12.4 CIRO’s Four Level of Evaluation of Training Impact

This approach was developed by Warr, Bird, Racham. The categories are-

a. Context Evaluation involves obtaining and using information about the current operational context in order to determine the gap that training might be able to bridge.
b. Input Evaluation involves obtaining and using information about possible training resources in order to choose between alternative inputs to training.
c. Reaction Evaluation involves obtaining and using information about trainee’s expressed, current or subsequent reactions in order to improve training.
d. Outcome Evaluation involves obtaining and using information about the outcomes of training in order to improve subsequent trainings.
1.12.5 Hamblin Model of Evaluation: According to Hamblin, we can evaluate at any four levels namely: Reaction, Learning, Job Behavior and Functioning. If we ignore level 3 (job behaviour) and level 4 (functioning), we may discover only superficial changes. If we ignore the first and the second, the trainer may find it difficult to explain and justify changes because it has not been followed through every link in the chain. According to Hamblin, objectives of training and its evaluation should be set at every level.

1.12.6 Peter Bramley's Model of Evaluation:

a. Evaluation before Designing Learning Event:
   Evaluation before an event might focus on the proposed methods and ask whether they are likely to be effective in achieving change. Knowledge and theory is necessary but if behavioural change is expected, some input on the type of behaviour expected will be required.

b. Evaluation during the Event:
   Reviewing the progress of learning during the event is an extension of the process of shared objectives. A focus on utility of the learning and action planning for its application in the workplace will reinforce the link between objectives of the event and organizational requirements.

c. Evaluation after the Event:
   After the event, analysis would measure changes in effectiveness as the: Organizational Level, Team Level, Individual Level

d. Change in Behaviour:
   In assessing whether changes in behaviour have taken place, the opinions of the subordinates are particularly valuable. Measures of frequency or quality, taken before and after training activities, will be necessary to establish that desired change has taken place.

e. Change in Learning:
   1. Changes in knowledge are measured through pre and post-test.
2. Evaluation of skills training is done by assessing whether the skill is actually necessary for successful job performance.

3. Attitude surveys can include specific questions that provide evidence on the effectiveness of training and development.

1.12.7 David Rea's Approach to Evaluation:
   a. The Trial Phase: This phase comprises of
      1. Developmental Stage- this involves an informal trial of a sample set of materials, exercises or activities
      2. Pilot testing- It tells whether the training being evaluated is suitable for the target population.
   b. The On-going Phase: This phase comprises of
      1. Validation- Used to measure the effectiveness of the whole training design
      2. Formative evaluation- monitoring the effectiveness of the different aspects of training on a continuous basis with a view to modification.
   c. The Final Phase: Also called the summative phase as it takes place at the end of the training events. It looks back on the training process and its outcomes and looks forward to fresh and new training initiatives.

1.12.8 Virmani and Premila's model of Evaluation:

Training constitutes of three stages
   a. Pre- Training Evaluation: The first stage is the period before training during which the trainees have expectations from the course.
   b. Context and Input Evaluation: The second is the teaching and learning stage
   c. Post- Training Evaluation: After the training when back on the job, the trainees are supposed to integrate training with their job performance
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