

5. **Techniques:** Training in this area involves teaching of application of knowledge and skills to handle dynamic situations.
6. **Attitudes:** People change their attitudes towards job, work and organisation. Training is imparted to develop positive attitude towards the job and the organisation.

## NEED FOR TRAINING IN INDUSTRY

The primary concern of an organisation is its viability and hence its efficiency. Employee training imparts specific skills and knowledge to employees so that they contribute to the organisation's efficiency. An organisation's effectiveness is dependent on its ability to accomplish the following three objectives:

1. To achieve its goals
2. To maintain itself internally
3. To adapt to its environment.

The need for training arises because of the following reasons:

1. **Non-availability of Trained Personnel:** It is difficult for any enterprise to find fully trained persons for all the categories of jobs. This sometimes makes it necessary to select persons with little or no training. Therefore, in countries with inadequate facilities for vocational education or technical training, employers themselves have to make arrangements to train their employees.
2. **Suitability for Enterprise Needs:** Even where a worker is otherwise trained, he needs to be given some special training consistent with the peculiar job requirements in the enterprise. This is because the type of training imparted in a vocational school is of a general nature. It needs to be supplemented with special training suitably designed for the job.

*Example:* A worker may have obtained training in grinding operation but for a company having CNC grinding machine, special training is to be imparted for him to be able to operate computerised numerically controlled machines.

3. **Proficiency in Latest Methods:** The fast rate of scientific and technological developments makes it mandatory for the enterprise to have continuous inhouse training facilities. In the absence of which the enterprise and its workers face the risks of not being able to compete. This is because as the worker is being trained, newer and better technology/inventions are available in the market. The need for improvisation and further training exists on a continuous basis. In the absence of which the enterprise and its workers face the risks of not being able to compete.

However, while the need for training is well-established, it is yet to be accorded the importance it deserves. Particularly in India training has received an indifferent treatment. The reasons are as follows:

- (i) *Casual approach:* Training is looked upon either as a piece of decoration or as a fire fighting equipment to be used only in case of extreme need. Either way, it is not seen as an active and a full time partner in the process of development.
- (ii) *An exercise in escapism:* A business organisation does not view training as essential for its smooth functioning. It may have a training department but this is more to escape criticism than as a developmental/growth tool. Advice coming from the training department is more often ignored than followed. In importance, training which is regarded as a staff function comes no where near the functions performed by production, sales or finance departments.

(iii) *Everyone's cup of tea:* It is widely felt that no professional skills are required to impart training, familiarity with the workings of an organisation are the only prerequisites. In fact some concerns use the training department as a dumping ground for unworthy employees.

4. **Technological Advances:** There is tremendous growth and development in industrial technology. To keep pace with advanced industrialisation, organisations are likely to be mechanised or automated. New skills are required to operate new machinery and to introduce new production techniques. For this refresher training programmes may be used for on the job training to upgrade their skill and knowledge.
5. **Organisational Complexity:** With mechanisation, automation and development in technology many organisations have emerged as complex organisations that produce a wide range of products. Even medium-sized organisations have expanded their business. Expansion has led to complex problems of coordination and integration of activities, resulting in a need for training and retraining of all employees from shop floor to top executives.
6. **Human Relations:** The growing complexity of organisations has led to various human problems, like alienation, interpersonal and intergroup problems. Training in human relations is necessary for tackling problems like how to motivate employees, how to redress their grievances and also how to settle the disputes arising in industries.

## TRAINING NEEDS

Training needs have to be related both in terms of the organisation's demands and that of the individual's. A survey conducted by Sinha has shown the following methods of identifying training needs:

1. Views of the line manager
2. Performance appraisal
3. Corporate and departmental plan
4. Views of training manager
5. Analysis of job difficulties.

If we examine the Thayer and McGhee Model, it is based on following three factors, i.e., total organisation analysis, task analysis and man analysis.

1. **Total Organisation Analysis:** Total organisation analysis is a systematic effort to understand exactly where training effort needs to be emphasised in an organisation. It involves a detailed analysis of the organisation's structure, objectives, human resources and future plans.

The first step in organisation analysis is achieving a clear understanding of both short-run and long-run goals. Short-term goals are constantly in need of adaptation to the changing environment, both external and internal. However, long-term corporate goals, if carefully planned, will be less subject to modification. If training input is going to contribute to corporate objectives, only then training is given.

For an organisation analysis, there are three essential requirements:

- (i) An adequate number of personnel available to ensure fulfilment of business operation.
- (ii) Personnel performance is up to the required standard.
- (iii) Working environment in their departments is conducive.

**2. Task Analysis:** This activity entails a detailed examination of a job, its components and conditions under which it has to be performed. The focus here is on the task itself rather than on the individual and the training required to perform it.

*Standard of performance:* Every job has an expected standard of performance. If the standards set for the performance of a job are known, then it is possible to know whether the job is being performed at the desired level of output or not. Knowledge of the task will help in understanding what skills, knowledge and attitudes an employee should have.

The objective of this exercise is to get as much information as possible about the nature of the task leading to the performance standard to be set. This information would be useful in establishing the training programme for employees.

**3. Man Analysis:** The focus of man analysis is on the individual employee, his abilities, his skills, and individual growth and development. Man analysis helps to identify whether the individual employee requires training and if so what kind of training?

Training needs can be identified from the individual's or the group's typical behaviour. The primary sources of such information are:

- (i) Observation at place of work
- (ii) Interviews with superiors and employees
- (iii) Comparative studies of good versus poor employees
- (iv) Personal records
- (v) Production reports
- (vi) Review of literature regarding job and machines used.

## TRAINING NEEDS IDENTIFICATION

For Top and Middle Managers

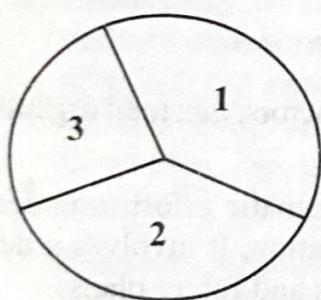


Fig. 1

For Supervisors

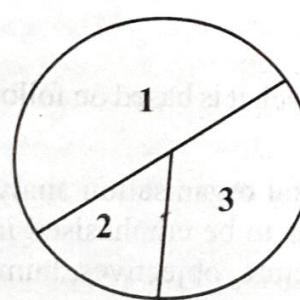


Fig. 2

For Rank and File Employees

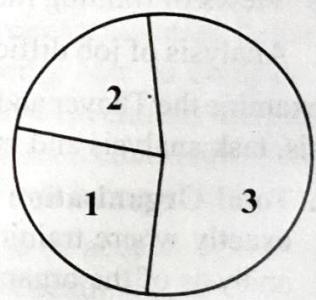


Fig. 3

**Fig. 5.1** Training Need identification at various level.

The figures indicates training need identification for various categories of employees from bottom to top. In the above figure number 1, 2 and 3 have different meanings as follows:

**1. Conceptual skill:** Number 1 denotes conceptual skill, i.e., planning, organising, directing and decision making etc. Top and middle managers require these skills.

2. **Knowledge of Organisation and External Systems:** Number 2 denotes, *i.e.*, knowledge of company's objectives and policies as well as external factors such as political, economic, social and technological etc.
3. **Technical Skill:** Number 3 is for technical skill, *i.e.*, manual skill, safety knowledge, quality control and cost control.

## Areas of Training

Areas of training can be classified into the following categories:

1. **Training in Company Policies and Procedures:** This is part of the induction of a new employee. The objective is to orient new employees with the set of rules, procedures environment and products with which the firm deals.  
Initial adjustment and entry to the organisation is a difficult process. Induction facilitates conducive and supportive atmosphere.
2. **Training in Particular Skills:** Training is imparted for particular skills so as to enable the employee to be more effective on the job. Its aim is narrow, *i.e.*, to guarantee a certain contribution to the job, for instance, sales training and machine skills.
3. **Human Relations Training:** It stresses on treating people as "human beings" and not machines. This establishes better relations resulting in enhanced productivity. This training is oriented towards the development of the individual and consequently the organisation's efficiency.
4. **Problem Solving Training:** The practice is to call all managerial personnel or from a particular division both Headquarter and field offices, to discuss common problems and arrive at solutions across the table. This not only helps solve problems but also serves as a forum for exchange of ideas which is helpful in other situations.
5. **Managerial and Supervisory Training:** The managerial job combines both techniques and conceptual knowledge. A manager must know the principles of scientific management, *i.e.*, planning, organising, staffing, directing and controlling.
6. **Apprentice Training:** The Apprentices Act, 1961, was based on the philosophy of providing some technical training for unskilled people in order to enhance their employment opportunity. The duration of training is 1-4 years.

## TRAINING METHODS FOR WORKERS

The following are some of the important methods or techniques of imparting training and education to employees of an enterprise:

1. On the job training
2. Vestibule training
3. Induction training
4. Internship training
5. Learner training
6. Company school training

7. Re-training or refresher training
8. Apprenticeship training
9. Demonstrations
10. Lectures

**1. On the Job Training:** Training given to the employees in the factory, on the real machine to improve the skill and knowledge is called on the job training.

This type of training is usually adopted where jobs are varied in nature and group instructions are not possible. It is also used where machinery provided for trainees is very costly.

**Procedure:** The new employee is placed under the charge of a supervisor or a senior coworker so that the new employee learns the skills of the job by observation as well as by occasional handling of the job. Sometimes training on the job is supplemented by instructions in a classroom.

#### **Merits**

1. On the job training is used mainly because it requires no special school.
2. Trainee's contribution adds to the total output of the department.

#### **Demerits**

1. The main drawback is that a worker may never be able to develop the necessary skills or he may be very slow in developing them. In either case, the result is low productivity.
2. Further, errors made by him may result in spoilage of materials or damage to machines and equipment.
3. Careful selection of a trainer and assigning the trainee to him is needed.
4. As the trainee is a part of the production line and has to show output, he cannot fully concentrate on learning.

**2. Vestibule Training:** The word "vestibule" means a passage or room between the outer door and the interior of a building. Vestibule training means training organised in a school in an industrial plant to train new workers in specific skills.

1. Vestibule training is introduced when the number of workers to be trained is large and the volume of training is too big.
2. The line supervisor, because of heavy responsibilities of his office is not in a position to spare time for training.
3. It is designed to equip the learner to only one phase of training, to operate one machine or to perform a single operation.

**Procedure:** This training is similar to on the job training. The only difference is that while on the job training is provided by the line supervisor on the shop floor itself, vestibule training is provided by special instructors away from the shop floor. The training is carried out in a miniature situation of each plant so that the trainee can practice the skills he will later use on the job.

#### **Merits**

1. In a vestibule school there is a real life situation. So when the trainee goes to the actual workshop (shop floor) he finds no change in the situation.

2. It can be imparted to a large number of workers without affecting the work on the shop floor.
3. The instructors are specialists in their jobs because they devote their full time and attention to training and do not have to attend to shop floor duties.
4. Trainees can also concentrate better on learning because they are away from the noise and work pressure of the shop floor.
5. The line supervisor is relieved from the responsibility of training, so he can attend to his main work efficiently.

### **Demerits**

1. It is costly because machines and equipments for the training have to be bought separately.
  2. Secondly, in case of deficient performance by a worker, the line supervisor may blame the instructors for inadequate training and the instructors may blame the line supervisor for ineffective supervision.
  3. Lastly, it is imparted at a place away from the shop floor so the trainees do not experience the problems arising from actual work situations.
- 3. Induction Training:** Induction training is specially imparted to the newly selected machine operators to make them familiar with their jobs and to impart the technical skill which is required to perform their jobs. This has been dealt in detail in chapter 3 under selection procedure.
- 4. Internship Training:** Internship training is a work and study programme where the trainee attends a school for theory sessions and works in the plant for practical experience in order to learn the skills and knowledge required for a particular job.

The training periods may range from 3-9 months and the trainee alternates from school to the plant and *vice versa* until the course is completed. This kind of programme is offered through cooperation between industries and schools. This programme covers both the theoretical and the practical aspects.

**Advantage:** It helps to learn and maintain a good balance between theory and practice.

**Disadvantage:** The disadvantage of this system is that it is a very slow process, and tests the patience of the student as well as the instructors, thereby may end up discouraging the instructor and the instructee.

- 5. Initial or Learner Training:** During periods of heavy demand for and short supplies of semi-skilled labour, industry has to train "green hands". Thus, it is to be given to the persons who have had no prior industrial experience.

The foreman is asked to teach about what the job is, what has to be done, how it has to be done, when and where it has to be done.

**Procedure:** The learner may be given training for a period of several weeks in two broad categories, i.e.,

- (i) General education and
- (ii) Job training.

The learner may be given training about mathematics, reading and using gauges, fire fighting, safety and good housekeeping.

**Merit:** Even the inexperienced persons are able to get the job related training as well as the job, even though they are not coming from technical institutes.

**Demerit:** Company has to train inexperienced hands, thus time and money is to be spent more by the management.

6. **Company School Training:** A company school is a school by itself but it differs from a vestibule school in that they are not mainly concerned with job training. They may include job training but they always include activities which go beyond those normally included in the vestibule school.

**Procedure:** It is usually organised to provide special courses to meet some emergency or to meet the needs of some special group of workers. Such training courses are usually designed to prepare the employee for larger and higher responsibilities as promotion in the same line of work.

**Examples:** Shop mathematics courses for mechanical workers. Stenographic courses for typists and management courses for foremen are examples of such company school courses.

7. **Re-training or Refresher Training:** One grave problem facing an industrial worker is job obsolescence, where his job may become obsolete because of changes brought by technology. Automation has introduced new problems. Loyal workers with years of long service find themselves and their jobs becoming redundant. Many companies in India faced this problem, the dock workers, LIC employees, banking employees, just to name a few were in fear of losing their jobs. However, the managements solved this problem through re-training programmes. This step of re-training is taken so as to allow the companies to use latest technology and also enable the workers to continue earning money through their jobs.

When demand for skilled and semi-skilled labour far exceed the supply, industry must introduce programmes to retrain and upgrade semi-skilled and unskilled workers. During the time of war need for re-training is felt because most companies have to change from their regular work to war work and also have to increase their output at the same time. Workers who have skills in making automobiles have to be re-trained to make tanks and jeeps useful for war.

8. **Apprenticeship Training:** A craftsman is mostly trained through apprenticeship training. In England at the peak power of craft guilds, it was necessary for a craftsman to put in seven years of apprenticeship with a master craftsman. This was common in India also though the facilities were far from adequate and it was difficult for the apprentice to make two ends meet. Thereby on the recommendation of several bodies, the apprenticeship training programme in the industry was made statutory by passing the Apprenticeship Act, 1961.

The duration of training ranges from three to four years in most trades, however training to be a welder is for a period of two years and for weaver it is six months.

The training consists of basic training in the first year which is followed by on the job or shop floor training in the subsequent years. Basic training is the responsibility of the government if the factory employs less than 500 workers and of the employer if it employs more than 500 workers.

**Procedure:** The apprentice works 5 days in a week in the factory and 1 day is reserved for related instructions in the ITI's. Related instructions, which include both practical and theoretical

subjects is the responsibility of the government. It is not obligatory on the part of the employer to offer employment to an apprentice nor is it obligatory or an apprentice to accept employment on successful completion of training.

**Penalty:** An employer can be fined or imprisoned for six months if he fails in his obligations and a trainee has to repay the stipend if he abandons his training halfway. Under the Act, there is the final trade test, which is necessary for every trainee to pass. The Act provides for prizes and medals for the best apprentice.

**9. Demonstrations:** In the demonstration method, the trainer describes and displays as he teaches an employee how to do a particular task, by actually performing the activity himself and by going through a step-by-step explanation of 'why' and 'what' he is doing.

Demonstrations are very effective in teaching because it is much easier to show a person how to do a job than to tell him or ask him to gather information from the reading material. Demonstrations are often used in combination with lectures, discussions, pictures, text materials etc.

Demonstration is effective in mechanical operations or interpersonal relationships and for job duties and responsibilities.

**Example:** Fire fighting demonstration in safety training. In Kolhapur, SMAK, an association of employers, if Kolhapur conducts a fire demonstration during safety week celebrations [4th March to 11th March], where artificial fire is created and an actual demonstration of fire fighting equipment and its usage is given.

**10. Lectures:** Lectures are formal organised talks by the training specialist and are regarded as one of the most simple ways of imparting knowledge.

The lecture method can be used for very large groups which are to be trained within a short time, thus reducing the cost per trainee. Lectures are essential when it is a question of imparting technical or special information of a complex nature. They are usually conducted with discussions, film shows, case studies, role playing and demonstrations. Audio-visual aids enhance their value.

**Limitations of lecture method:** However, the lecture system suffers from some limitations

1. The learners are passive instead of active participants. It is a one way communication. There is no feedback from the audience.
2. A clear and vigorous verbal presentation requires a great deal of preparation, for which management personnel often lack the time. Moreover, it calls for effective speaking skills.
3. The untrained lecturer gives too much information in the lecture, which the listener finds difficult to absorb.
4. Though a skillful lecturer can adapt his material to the specific group, he finds it difficult to adjust it for individual differences within a group.

## EVALUATION OF TRAINING

To get a valid measure of training effectiveness, HR should accurately assess trainee's job performance 2-4 months after completion of training.

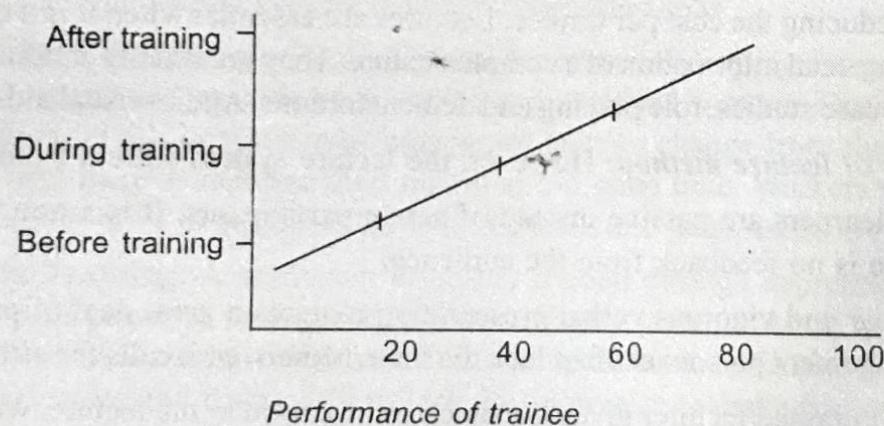
For evaluation of training four basic categories of outcomes can be measured:

- 1. Reaction:** The trainee's reaction to the programme has to be recorded. Did he like the programme?
- 2. Learning:** Knowledge and skill acquired by the trainee as a result of the training has to be recorded. Did the trainee learn the principles and skills that the trainer wanted him to learn?
- 3. Behaviour:** Whether the trainee's behaviour on the job changed because of the training programme. Did the trainee become a regular employee because of the training programme?
- 4. Results:** What final results have been achieved? Did scrappage costs decrease? Was the turnover reduced? Favorable results must be obtained because of the training programme.

## Techniques of Evaluation

- 1. Structured Interviews:** Interviews with the immediate supervisor of the trainees are acceptable methods of obtaining feedback on training.
- 2. Use of Experimental and Control Groups:** Each group is randomly selected, one to receive training, i.e., experimental group and the other not to receive training, i.e., control group. Performance of both the groups is measured before and after the training. If the results shown by the experimental group are significantly greater than those of the control group, the training can be considered successful.
- 3. Time Series Analysis:** A series of measurements are taken before the programme begins and continues during and after the programme is completed. The results obtained are plotted on a graph to determine whether changes have occurred as a result of the training effort. If the graph shows that after training, the performance is better than before the training, the training is successful.

**Graph of Time Series Analysis**



- 4. Pre- and Post-test be Administered:** Prior to the training, a test related to the training material is applied and the results of this pre-test are compared with the results on the same test administered after the programme has been completed. If the post-test performance is better than the pre-test performance, we may infer that the training is successful.

### Why training fails?

1. If benefits of training are not clear to top management.
2. Top management rarely plans systematically for training.

3. The top management hardly rewards supervisors for carrying out effective training.
4. The middle management does not have proper incentives for training.
5. Timely information about external programmes may be difficult to obtain.

### *Improving effectiveness of training*

1. Making a trainee aware of personal benefits by training.
2. Combination of training methods.
3. All trainees do not progress at the same rate — so flexibility should be maintained.
4. Involvement of workers in training.

### *Questions to be answered for evaluation of training:*

Training involves time, effort and expense. Therefore, it is advisable to find the contribution of a training programme towards development of organisation and employees. The training programme should answer the following questions:

1. Did change occur?
2. Is the change due to training?
3. Is the change positively related to the achievement of organisational goals?
4. Will similar changes occur with new participants in the same training programme?

**Criteria to judge effectiveness:** Training can be said to be effective, if it has led to:

1. Improvement in efficiency of labour.
2. Reduction in absenteeism and labour turnover.
3. Reduction in the number of accidents.
4. Better discipline.
5. Better labour — management relations.
6. Qualitative and quantitative improvement in production or work performance.
7. Reduction in supervision costs.
8. Safety and health precautions.
9. Efficient methods of working.
10. Proper care of tools and equipment.
11. Reduction in wastages.

## **ADVANTAGES OF TRAINING**

Training is provided to meet the changing needs of the employees as well as of the organisation. Training is, therefore, important not only to the employees but also to the company.

### Advantages of Training

<i>To the Company</i>	<i>To the Candidate</i>
<ol style="list-style-type: none"> <li>1. Increased efficiency</li> <li>2. Reduced Supervision</li> <li>3. Reduced accidents and wastage</li> <li>4. Reduced absenteeism and turnover</li> <li>5. Assists newcomers</li> <li>6. Information about firm's policies and programmes</li> <li>7. Competent and capable employees</li> <li>8. Other benefits</li> </ol>	<ol style="list-style-type: none"> <li>1. Confidence in employees</li> <li>2. Positive attitude</li> <li>3. Chances of promotion</li> <li>4. Refreshing</li> <li>5. High rewards</li> <li>6. Cooperation</li> </ol>

### Advantages of the Company

- 1. Increased Efficiency:** Trained employees perform with greater speed and accuracy. They work with a feeling of commitment and dedication. This is because not only skill and knowledge is developed but also positive attitudes are developed through training. There is qualitative and quantitative improvement in the employees.
- 2. Reduced Supervision:** Trained persons require less supervision because they know their job and commit fewer mistakes. The supervisor can concentrate on more important activities such as planning and controlling.
- 3. Reduced Accidents and Wastages:** Trained employees develop positive attitude towards their job and organisation. Such persons are more interested in their jobs and handle the machines and materials with care and caution. This helps to reduce accidents and wastages.
- 4. Reduced Absenteeism and Turnover:** A trained person derives more job satisfaction. Morale of trained staff is high. They do not remain absent without a tangible reason. There are also less chances of labour turnover.
- 5. Assist Newcomers:** Training develops confidence in new employees. Newly appointed candidate feels a sense of pride and belonging to the company. They understand that the company is sincerely interested in them which results in dedication and loyalty thereby benefiting the firm.
- 6. Information about Firm's Policies and Programmes:** Training can be a means to communicate the firm's policies and programmes to the employees. Effective communication helps to obtain acceptance from the employees, their cooperation in achieving the firm's goals.
- 7. Competent and Capable Employees:** Training helps to create competent and capable workforce. This helps to meet problems arising out of absenteeism, labour turnover.
- 8. Other Benefits:**
  - (i) It develops better labour relations.
  - (ii) It develops employee's loyalty towards the firm.
  - (iii) It facilitates introduction of new techniques like PERT, CPM etc.
  - (iv) There is proper use of available resources.
  - (v) It reduces grievances on the part of the employee.