CHAPTER IV

EVALUATION OF TRAINING – ITS APPLICATION IN THE BANKS
Introduction

In the previous chapter we discussed the training practices of the Corporation Bank (CB), Karnataka Bank Ltd (KBL) and Industrial Credit and Investment Corporation of India Limited (ICICI). We also discussed the practice of training in the Corporation Bank and the Karnataka Bank Ltd, with reference to internal training programmes, external training programmes, Staff Training Colleges (STCs), faculty training evaluation, training needs analysis and related topics. A brief overview of the training practices of the ICICI Bank Ltd were also presented.

The present chapter is a conceptual study on “Evaluation of Training”, wherein we are presenting the need, importance and objectives of evaluation, process of evaluation which includes different models of evaluation and problems of evaluation, and the application of evaluation of training in banks is also mentioned in brief. Since there are limited studies relating to the evaluation of training in the banks, the study carried out by researchers, eminent scholars and experts in the field on evaluation of training methods in other related industries have been taken as base and an attempt has been made to apply them in the evaluation of training in the banks.

As there is greater awareness of management training and development in all the sectors of the economy, a large number of organisations are setting up their own training facilities. They are also inviting faculty from outside to conduct in-company courses for executives at all levels. Training is expensive if it does not serve the purpose for which it is given. Training should be able to improve the capabilities of individuals and collectively that of the organisation. If the programme of training does not contribute to the building of organisational capabilities and reflect over a period of time in improved performance, the loss to the organisation is far greater than the money spent on training. Training should serve preset purposes, as the employers are investing large sums of money on training. It is, therefore, natural that the management should seek verification that they are getting value for their money. Thus, measurement of training effectiveness is the best way one can arrive at the expected benefits from training and whether it is in tune with the objectives. It is the evaluation of training that acts as an important tool of measurement to know how well the training inputs are serving the intended purpose. Evaluation of Training is a systematic collection and assessment of information which enables the organisation to utilize the available resources properly and serves as an effective feedback to achieve the organisational needs/targets. It also helps in redesigning the training system if it fails to achieve the desired result.
Need for the Evaluation of Training

Theoretically, the ultimate measure of effectiveness of the training function would be the returns on the personnel, time, facilities and funds invested in training and management development. But, this is rarely feasible in practice. As per Ganguli, one cannot but remain contented with the assessment of training by collecting the feedback from participants immediately after the training and then analysing them. This exercise makes it possible to assess the degree of learning only at the cognitive level (i.e., acquisition of knowledge), whereas, the degree of learning at the behavioural level (the application of acquired knowledge in practice) cannot be assessed in this manner. Therefore, there is a need for conducting follow-up of the reaction’s level evaluation with one or more evaluations at subsequent stages to assess the behavioural effects of training, as very few organizations in practice have really effective systems for such follow-up investigation.

Evaluation of training gives a feedback on the effectiveness of training. Without it, with changing training needs, there may not be corresponding changes in training design in the form of objectives or the course content and the training function may suffer. Without systematic evaluation, it is difficult to judge the net worth gained or the value added by training inputs and by this, training is viewed sceptically and may be looked upon as a drain on organization’s resources.

Purposes, Objectives and Significance of Evaluation

Evaluation plays a major role in the training system, which not only helps improve the training process but also makes both trainers and trainees fully committed and involved in the training process. Two main objectives of evaluation such as, “to refine” and “to survive” were identified by Randall. “To refine” is to be less concerned with justifying training activities of the past and more with learning in order to refine sharply in the future. “To survive” is the way the trainers justify their own existence by demonstrating the contribution which training has made in the past, with a view to developing training methodology. The trainers in order to validate their professional claim should substantiate by measuring the effectiveness of training, which the selected training methodology and the techniques have brought about the expected results. Evaluation of training should also help the trainees to reach an expected level of performance. Miller has identified that the major purpose of evaluation is to improve the performance of the trainee employees by giving them a quick and timely feedback regarding their performance. Hamblin explains evaluation as control. The purpose of evaluation in the form of evaluation cycle has been presented here.
**Evaluation in a Control System**

The purpose of evaluation is collection, investigation, analysis and evaluation of information leading to decision making and action. Evaluation not only implies control (restraint and limitation of freedom) but also facilitates information that helps the trainers and trainees to realize new opportunities which increases their freedom of action. Thus, evaluation not only improves training, but is also an excellent training aid.

The aims of evaluation exercise in terms of ‘Evaluation Cycle’ are also represented by Woodward. He divides the cycle into two main segments, namely, an analysis of training needs and an assessment of training.

*Source: Hamblin, 1974 (Ref 6)*
Fig. 4.2: Evaluation Cycle

The above scheme is an indirect representation of decision making process which helps in setting up and obtaining feedback on any training activity. The aim of evaluation is to discover the reactions of trainees, to know the level of learning, the extent to which skill, knowledge and attitudes have resulted in changed behaviour and to know the extent to which changes in behaviour have resulted in organisational performance.

Evaluation is classified into Summative and Formative evaluations as per Scriven (mentioned by Kane⁹). Summative evaluations are undertaken for the purpose of determining whether a programme has produced the desired outcomes. These have the objective of furnishing a basis for making a "go-no-go" decision about whether to continue or to terminate the programme. Formative evaluations' purpose would be to use its findings as a guide to modify the content and process of the programmes and also to decide whether to continue the programme or not.

The evaluation of training is essential to understand whether the developmental objectives are achieved. The evaluation of training is not a necessity, but a must⁹. This is because the evaluation is useful to find out the effectiveness of the methods of instruction and also to detect whether the trainee has changed his behaviour. Coffman¹⁰ states that the use of evaluation approach to training can enhance communication between programme developers and the training practitioners.
Evaluation gives a feedback to the programme designer in conducting workshops for different users.

Evaluation is an important means to measure training and development. It is a way to understand the impact of training on the performance and attitudinal changes of the trainees after they underwent the training programmes. The objective of evaluation is also to get feedback regarding the relevance and usefulness of training for which it was intended. Three general purposes of evaluation of training as identified by Mark and Goss are 'Proving', 'Improving' and 'Learning'. 'Proving' demonstrates conclusively that something has happened as a result of training and development. 'Improving' emphasizes on whether future programmes and activities have become better than they are at present. 'Learning' concentrates on the learning and development process. Rae has classified the uses of evaluation as trainer interest, training manager interest, senior management interest and client interest. The management will be interested in understanding whether the training is producing sufficient change in organisational efficiency to warrant the continuation of the training expenditure.

Evaluation of training is essential to determine whether the programme is accomplishing its objectives. As per Philips, the purposes and uses of evaluation of training programmes are to identify the strengths and weaknesses in the HRD process, to determine the cost/benefit ratio of a HRD programme, to decide who should participate in future training programmes, to identify which participant has benefited the most or the least from the programme, to examine the validity of tests, questionnaires, exercises, and to establish the database which can assist the management in decision making.

Interpersonal skill is one of the most important skills that are essential for the manager to perform successfully. There is even a need to evaluate the training of interpersonal skills, in order to know whether there is a real practice of new interpersonal skills, on the job, and monitoring the progress of interpersonal growth. Evaluation provides the basis to understand the transfer of learning and to gauge the practical value of training of interpersonal skills.

Harms has explained the significance of evaluation of training as it is essential to decide the future training programmes, continuation and change in the training programmes, assessing the performance of the individual trainees and also to verify and justify the expenses. Feedback evaluation will be most beneficial during the pilot stage of a new programme or when new activities are being introduced into older programmes. Evaluation serves the main purpose of estimating the worth to the organisation of the output from training activities and also can estimate the cost of
providing training To understand different combinations of training techniques and methods for problem solving, improving performance and to make decisions about future training plans so as to improve the quality of training activities, evaluation of training becomes necessary.

Evaluation of training is a reliable indicator to know where one stands in terms of development, performance and it enables preparation of appropriate future training plans and processes. Birla\textsuperscript{19} has stated that evaluation of training raises the commitment and involvement of trainees in the work place. It also improves methods of work and enables people to work with minimum supervision and wastage to produce quality goods and services. Evaluation of training even makes the process like transfer, promotion or demotion easier. Lynton and Pareek\textsuperscript{20} have highlighted the purposes of evaluation from the point of view of evaluation of the training programme, evaluation of the training process, evaluation of facilities and contents regarding training, evaluation of training outcomes and evaluation of post training factors. It covers the areas from improving the training programme, climate and methodology to improve the training in general. The objective of evaluation is also to ensure post training support at work and maximization of cost effectiveness of training.

Thus, evaluation plays a major role in the training system which concentrates on whether the resources in terms of money, time and effort spent on training have achieved the desired objectives or not. We can conclude that it is important to evaluate the outcomes of training activities in order to ensure that the purpose of training is not defeated.

**Evaluation Process**

The purpose of training is to improve the performance of the current employees, enable them to gain knowledge, skills and orientation of attitudes required by the changes. Therefore, we need a feedback on trainee’s performance, on programme, on training materials, on trainers’ performance, on side effects and management's concern. There are advantages of formalizing the evaluation process to ensure credibility, consistency of standard, perfection and accuracy, justification for investment, recognition of importance of satisfying needs of clients, benefits of training function, encouragement, management and professional approach to training.

If we do not adopt an evaluation process in the training system then, the trainees will not know whether they have achieved the desired outcome and the trainers lack feedback on the quality of training. Money may be wasted because of lack of awareness of poor quality of training. If there is no evaluation process, the management may not associate improved performance with training and investment may be reduced on training. Thus, there is need for a systematic approach to training.
which involves the process of evaluation in it (assessment, validation and evaluation).

Evaluation process is given by several authors which includes techniques of evaluation approaches and models of evaluation.

Everyone would agree that the purpose of evaluation would be to determine the effectiveness of a training programme, but as per Kirkpatrick\(^2\), evaluation is needed in order to improve future programmes and to eliminate those programmes that are ineffective. He has introduced the following techniques of training evaluation, which have been represented in the following chart.

**Chart 4.1: Steps in Training Evaluation**

<table>
<thead>
<tr>
<th>Step 1 Reaction</th>
<th>Step 2 Learning</th>
<th>Step 3 Behaviour</th>
<th>Step 4 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>How Well Did the Conference Like the Programme?</td>
<td>What Principles, Facts and Techniques were Learnt?</td>
<td>What Changes in Job Behaviour Resulted from the Programme?</td>
<td>The Tangible Result of the Programme Such as Reduced Cost, Improved Quality, Improved Quantity, etc</td>
</tr>
</tbody>
</table>

**Source:** L. Kirkpatrick, 1967 (Ref 21)

**Step 1 Reaction:** Evaluation in terms of reaction is the same as measuring the feelings of the conference, participants about the content, training aids, trainers' clarity and support lecture and discussion but does not include the measurement of any learning that takes place. It is important to know how people feel about the programmes they attend, as the decisions by the top management are frequently made on the basis of comments they receive from the participants. Reaction evaluation should be done in an organized fashion using written comment sheets in such a form that the comments can be tabulated and quantified, to obtain the desired reactions. He also recommended an appointment of co-ordinator, training director or trained observer who can make his own appraisal of the session in order to supplement the reactions of enrollees. The combination of these two evaluations is more meaningful than either one by itself.

**Step 2 Learning:** Favourable reaction to the programme does not assure learning. Learning is the extent to which the principles, facts and techniques were understood and absorbed by the trainees, which does not include on-the-job implementation of these principles. Suggested methods of learning evaluation are classroom performance, paper and pencil tests which include objective tests, simulations, performance tests, assignments and projects.
Learning Evaluation: Some Guidelines

⇒ Learning of each conference should be measured so as to determine the quantitative results

⇒ Before and after approach should be used So that any learning can be related to the programme

⇒ Learning should be measured on an objective basis.

⇒ Wherever possible, control group (not receiving training) should be used to compare with the experimental group which receives the training

⇒ Wherever possible the evaluation results should be analysed statistically so that learning can be proved in terms of correlation or the level of confidence

Step 3 Behaviour: A systematic appraisal of on the job performance should be made at pre and post training period, to know the changes in the job performance of the participants The appraisal of performance of an employee should be made by his superiors, his subordinates, his peers or other people thoroughly familiar with his performance Comparison of pre and post training performance, usage of control group, post training appraisal after 3 months or more of the training are the guide posts, to be followed in evaluating training programmes in terms of behavioural groups

Step 4 Results: The objectives of the training programmes can be stated in terms of results such as reduced turnover, reduced cost, improved efficiency, reduction in grievances, increase in quality and quantity of production or improved morale to evaluate training programmes directly in terms of results desired The evaluation of results is much complicated and difficult as the performance, reduction of accidents, reduction of grievances, reduction of costs cannot be directly attributed to the training as other factors might have been influential

The purpose of Kirkpatrick’s approach of evaluation is to stimulate the people to take a penetrating look at evaluation of training By breaking it down into reaction, learning, behaviour and results, the training person can begin to do something about it and can gradually progress from a simple subjective reaction sheet to research design that measures tangible results

The levels of evaluation have been defined by Warr, Bird and Rackham as CIRO approach, since they used Context, Input, Reactions and Outcome (output) evaluations to strengthen the training system The CIRO approach to training evaluation has been shown under
Chart 4.2: CIRO Approach

**CIRO APPROACH**

**Context Evaluation**
- Assessment of Training Needs as a Basis for a Design:
  - a Is the training solution appropriate?
  - b Are the objectives right ones?
  - c What needs to be changed?

**Input Evaluation**
- Using Facts and Opinions about the Available Human and Material Training Resources in order to Choose Between Alternative Training Methods:
  - a What are the relative merits of different Training methods?
  - b What were the results of previous similar courses?
  - c Does the content reflect the objectives, if not what should be the content?

**Reaction Evaluation**
- Obtaining the Reaction of the Participants Regarding Training to Improve the Training Process:
  - a Should the session reactions be fed back to the tutor to improve the ongoing event?
  - b Conversion of answers to numerical score to make comparisons possible?
  - c Evaluation at the end of each session as well as at the end of each course

**Outcome Evaluation**
- Also Called Process Evaluation, Encompasses the Measuring of the Consequences of Training in Terms of Immediate, Intermediate and Ultimate Outcomes:
  1 Immediate – What changes in KSA (Knowledge, skill, attitude) have resulted? (Or have immediate objectives been met?)
  2 Intermediate – What changes are there in on-the-job performance (or have intermediate objectives been met?)
  3 Ultimate – What is the effect of job performance on the organisation? (or have the long-term objectives been met?)

**Source:** Warr, Bird and Rackham, 1970 (Ref 22)

Hamblin (Ref 6) has set out five levels of evaluation of training which are depicted in Chart No 4 3
He assumes a cause-and-effect chain linking the five levels of training effects, shown below:

**Source:** Hamblin, 1974 (Ref 6)

This chain may snap at any of its links. A trainee may react correctly but may fail to learn or he may learn but fail to apply his learning on the job or he may change his behaviour but this may have no effect on the organisational variables, or the organisation may change, but this may have no effect on the profits or other ultimate criteria. The task of the evaluator is to discover whether the chain has held through its entire links. If it has not, he should be able to find the reasons for the snapping of links and can make suggestions on how it should be mended.

Hamblin goes beyond the trainee's job-behaviour and studies the effects of any behavioural changes on the functioning of the firm and from this he tries to discover whether training has been worthwhile in terms of ultimate criteria by which the firm evaluates its activities. Ultimate value effects and objectives can be judged in financial terms. He labels this level the cost-efficiency level, which answers the question, whether the financial benefits resulting from training are greater than the financial cost of the training.
There is a relationship between these three models at certain levels which is shown below

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>Reactions</td>
<td>Reactions</td>
</tr>
<tr>
<td>Level 2</td>
<td>Learning</td>
<td>Learning</td>
</tr>
<tr>
<td>Level 3</td>
<td>Job Behaviour</td>
<td>Job Behaviour</td>
</tr>
<tr>
<td>Level 4</td>
<td>Organisation</td>
<td>Results</td>
</tr>
<tr>
<td>Level 5</td>
<td>Ultimate Value</td>
<td>Ultimate</td>
</tr>
</tbody>
</table>

Hamblin criticizes that the Rackham’s terminology is to some extent misleading as learning does not always happen immediately but may be gradual and the organisational changes are not necessarily ultimate.

Researchers view that amongst Kirkpatrick and Warr, Bird and Rackham’s evaluation approaches, the latter encourages seeing evaluation as a continuous process starting with the training process. Both frameworks view the last level of evaluation as the most difficult, the least often done and the most valuable.

Hessling (Ref 4) has defined training evaluation as the one which includes validation and evaluation. Internal validation is a series of tests and assessments designed to ascertain whether a training programme has achieved the behavioural objectives specified. External validation is a series of tests and assignments designed to ascertain whether the behavioural objectives of an internally valid training programme were realistically based on an accurate initial identification of training needs in relation to the criteria of effectiveness adopted by the organisation.

Evaluation is the assessment of the total value of a training system, training course or programme in social as well as financial terms. Evaluation differs from validation, which attempts to measure the overall cost-benefit of the course or programme and not just the achievement of its laid down objectives. He has also explained the difference between an Instrumental and a Heuristic approach to evaluations. An Instrumental approach is where one starts with a technique and looks for situations in which to apply it. A Heuristic (or discovery) approach, on the other hand, is where one starts with a problem and then looks for techniques with which to solve the problem.

Truelove also has conducted a study on evaluation on similar lines and has mentioned that evaluation should include internal validation, which holds a series of tests and measurements to ascertain whether the training programme has met the specified behavioural objectives and if these behavioural objectives of a training
programme are based on initial identification of training needs, then that meets the requirements of an external validation.

Truelove (Ref 23) has suggested several techniques in order to justify the investment made in training and stressed upon the development of national standards to provide a comprehensive set of objectives and assessment criteria which makes the process of evaluation more meaningful and relevant to the job of the trainer. He has suggested the following evaluation stages.

**Table 4.1: The Process of Training Evaluation**

<table>
<thead>
<tr>
<th></th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I</strong></td>
<td>Reaction Evaluation</td>
<td>Collected by</td>
<td>Problems</td>
<td>Solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Questionnaire or rating scale or by the use of third party to collect responses</td>
<td>1 Participants often overuse the average and middle position and tend to give the answers, when they feel quite differently</td>
<td>Careful design of questionnaires, by guaranteeing anonymity or by using a third party to collect responses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 Motives can vary from the desire not to upset a pleasant but ineffective tutor to avoidance of an inquest if they are critical</td>
<td></td>
</tr>
<tr>
<td><strong>II</strong></td>
<td>Immediate Outcome Evaluation</td>
<td>Comparison of pretest and post test scores of trained group. Use of control groups and exercising pre-test and post test scores of the trained group and the control group and company</td>
<td>Cost and time considerations prevent the use of pre-test and control groups</td>
<td>Performance test like role plays, business games, group exercises, simulation, mock interviews</td>
</tr>
<tr>
<td></td>
<td>(Measuring the changes in Knowledge, Skill, Attitudes (KSAs) that are the result of training)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contd
### Intermediate Outcome Evaluation

(Changes in the job performance as a result of training)

Comparison of trained and control groups for matching in terms of previous performance, target and experienced and the difference between them are due to the training.

**Direct measures**
- Comparison of trained and control groups for matching in terms of previous performance, target and experienced and the difference between them are due to the training.
- Direct measures like output, scrap rates, number of customer transactions that can be converted into cash values.

**Indirect measures**
- The performance of the individuals in a group is measured by asking a judge, usually manager or supervisor to rate individuals on two dimensions, motivation and skill.
- The best and the worst performers are placed on the performance grid. The score for an individual is calculated by adding the motivation and skill score dividing it by two. This calculation gives the performance rating.

Other indirect data on performance:
- Collected by interviews, questionnaire, observation and attitude survey.

It may be difficult to involve sufficient staff so as to establish the differences in the performance between the control and the trained group. There are many jobs, it may not be possible to use direct measures of measuring the performance. It is difficult to assume that the increase in performance is caused due to training as other factors such as economic climate, experience, incentives or support systems also will be operating at the same time.

Direct measures, indirect measures and combination of the above.

---

**Contd**
<table>
<thead>
<tr>
<th>IV</th>
<th>Ultimate Outcome Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>(Effect of training on the organisation by taking into consideration the estimated cost of investment in training)</td>
</tr>
<tr>
<td>b</td>
<td>- Cost effectiveness analysis which deals with the examination of training costs in monetary terms as compared to the benefits of training (also) in monetary terms</td>
</tr>
<tr>
<td>c</td>
<td>- Cost benefit analysis is the examination of training costs in monetary terms compared to the benefits expressed in non-financial terms (which may be in the form of morale, improved attitudes, health and safety indices and so on). The technique used for costing the benefits are [Human Resource Value (HRV) = Personnel Cost x Performance Rating]</td>
</tr>
<tr>
<td>d</td>
<td>- DIF analysis (Difficulty, importance, frequency or percentage of time devoted to work) and Pay Back Time (used to forecast whether a programme is likely be worthwhile before the investment is made)</td>
</tr>
<tr>
<td>1</td>
<td>The danger of correcting assessments of performance, difficulties and importance into figures which have objective and scientific value</td>
</tr>
<tr>
<td>2</td>
<td>The techniques outlined provide a rationale for choosing where and when to invest in training rather than providing the true picture of the benefits</td>
</tr>
</tbody>
</table>

Source: Truelove, S, 2000 (Ref 23)
A primary purpose of evaluation in order to improve the effectiveness of training and to demonstrate its results has been well focused by Ford24 Formative Evaluation focuses on improving the training process and the effectiveness of training. It is primarily an internal evaluation process initiated and used by trainers to assess their own work and discover ways to make continuous improvements in training process.

Summative evaluation is result-oriented. It focuses on assessing the impact of completed training programmes to determine whether they have met their goals and if the programmes should be continued or curtailed.

Ford has also concentrated on the summative issues like results and impact. He has highlighted the phase of evaluation given by Kirkpatrick and has explored some useful techniques to measure these variables and to use the information to improve the training process and communicate to clients and stakeholders about the results. In case of evaluating reactions to training, the following categories have to be evaluated:

- Knowledge of the subject matter
- Presentation skill
- Organisation of the class
- Management of the class
- Relationship with learners
- Answers to questions
- Use of specific teaching methods such as demonstration, discussion, lecture, role play, case study, hands-on practice etc
- Use of Audio Visuals

For each of these elements, the Report Card Approach includes letter grades from A to F (Excellent = A, Good = B, Fair = C, Poor = D) and through opinion survey that uses Likert scale to assess agreement with a series of statements about the training programme (The scale ranges from 5-9 points ranging from strongly agree to strongly disagree).

Evaluating the results of training are based on the analysis of direct costs involved in training such as testing, needs assessment, instructor’s salaries, computer hardware and software and also indirect costs such as participant’s wages while attending classes during the company time, training management’s wages, printing, shopping and miscellaneous costs. Return On Investment (ROI), is the best to state the monetary benefits derived from an investment in training.

The results of training are also based on reduced turnover, absenteeism, tardiness, job accidents and safety problems. Other tangible benefits include increased productivity, better quality and quantity, reduced costs and increased revenues and profits. But,
determinations of these are not very easy and require accurate reports, data, analysis of data and well-designed evaluation network.

Although, the financial return on training expenditure is important, it is not always the most appropriate measure of effectiveness. A better measurement might be whether the training resulted in attaining the business goals. In a competitive fight for survival, achieving business goals may be more important than the cost/benefit analysis. Also, the purpose of evaluation may be more than assessment. Measures of learning effectiveness might serve as a source of learning and motivation if they are provided as feedback to trainees. A business could use data on behavioural changes, to give workers feedback about their work related improvements.

All the stakeholders in the programme — training agency, trainers and participants and the nominating organisations are interested in the evaluation of training but their outcomes and reasons are varied, says Agochya, as the nature of involvement of each of these groups is different. He says an evaluation can be conducted in four stages. Pre-training evaluation helps the trainees to establish a benchmark for measuring the incremental value of the knowledge, skills and attitude of the participants from the training programme. On-going evaluation helps in monitoring the programme, in taking corrective action and effecting necessary changes in contents and the training process to make training more relevant and appropriate to the participants’ requirements. End-term evaluation is undertaken to find out how the programme delivered. Sometime after the training programme has ended, the agency may wish to examine in what ways the learning derived from the training has helped the participants in improving their performance. The knowledge acquired by the participants during the training can be assessed through a number of pencil and paper tests. The development of skills can be assessed through performance tests and changes in attitudes and values which also can be measured.

Controlled Experimentation given by Charlie is the best method to use in evaluating a training programme. In a controlled experimentation, both the training group and a control group (which receives no training) are used. Data should be obtained both before and after the training effort. This is one of the ways to determine the extent to which any change in performance in the training group has resulted from the training itself rather than some organisation-wide changes such as rise in pay. It was assumed that the rise in pay would have equally affected the employees in both the groups.

Catalano and Kirkpatrick, Ford and Wroten, Paquet, Baldwin and Ford, Montebello and Haga and Kiddler and Rounlier have conducted research in several companies to see how many companies are following the systematic evaluation network. The survey has found that before and after the training measures were
Models of Evaluation

The purpose of evaluation is to design the training strategy. The key to developing an effective evaluation strategy is to provide an answer to the question about the need to measure and to evaluate the training. The models help to provide cognitive clarity for trainers and consultants who were confused by the evaluation process. The evaluation models provide a method for the trainer and consultant to develop a balanced strategy to bridge the gap between evaluation theory and evaluation in an action setting.

Thompson\textsuperscript{34} has developed an evaluation model for training by adopting the ideas proposed by Berkowitz, N H.

Table 4.2: A Model for Developing a Strategy for Training Evaluation

<table>
<thead>
<tr>
<th>Audiences</th>
<th>Criteria of Evaluation</th>
<th>Validity Concerns</th>
<th>Methods</th>
<th>Designs</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Trainee</td>
<td>- Process</td>
<td>Internal Validity</td>
<td>- Action Research</td>
<td>- Action Research</td>
</tr>
<tr>
<td></td>
<td>- Results</td>
<td>Did the process</td>
<td>- Behaviour Observation</td>
<td>- Pretest/Post test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>make a difference?</td>
<td>- Reaction Measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Measurable Usable Objectives</td>
<td></td>
</tr>
<tr>
<td>Organisational</td>
<td>- Process</td>
<td>Internal Validity</td>
<td>- Third Party Evaluation</td>
<td>- Action Research</td>
</tr>
<tr>
<td>Decision Makers</td>
<td>- Efficiency</td>
<td>Did desirable and</td>
<td>- Measurable Objectives</td>
<td>- Pretest/Post test</td>
</tr>
<tr>
<td></td>
<td>- Results</td>
<td>wanted changes</td>
<td>- Cost Benefit</td>
<td>- Multiple Time Series</td>
</tr>
<tr>
<td></td>
<td></td>
<td>occur? Where they</td>
<td>- Reaction Measures</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cost effective?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Validity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can these results</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>be generalized</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>elsewhere?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Trainer</td>
<td>- Process</td>
<td>Internal Validity</td>
<td>- Behaviour observation</td>
<td>- Action Research</td>
</tr>
<tr>
<td></td>
<td>- Efficiency</td>
<td>Did the training</td>
<td>- Reaction measures</td>
<td>- Pretest/Post test</td>
</tr>
<tr>
<td></td>
<td>- Results</td>
<td>make a difference?</td>
<td>- Anecdotal evidence</td>
<td>- Multiple Time Series</td>
</tr>
<tr>
<td></td>
<td></td>
<td>How decisions are</td>
<td>- Historical data</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>made to each</td>
<td>- Trainer judgment</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>phase?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Validity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can these results</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>be achieved</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>elsewhere?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: T Thompson, Jr, 1978 (Ref 34)

Table 4.2 was developed in order to develop the process of measurement of training. The model represents a systems view of the audiences who are the users of evaluation results. The evaluation that evolves from this model has a macro view point.
i.e., it answers the need to measure and evaluate. The micro decisions of identifying training needs, kinds of training programmes, criteria and methodology can be made.

Any educational or training endeavour needs an integrated evaluation system that spans from micro studies of teaching methods and styles in relation to learning outcomes. The need for educational and training activities is often regarded as self-evident, and investments in them made as acts of faith. In the absence of coherent evaluation, strategies will contribute a 'vicious circle'. The decision making aspect of the evaluation model, represented by Burgoyne and Singh [35] has been depicted below.

Chart 4.4: Evaluation Model of Decision Making

As the information needs of different decision levels are different, the kinds of research study that provide information relevant to them will be different. Policy, strategy, programme, method and intra-method decisions represent the poles of a continuum rather than a dichotomy. Training and education occurs in dynamic open systems and the complexity of these has inhibited evaluation. Educated and trained people are affected by all kinds of other institutions like employers, trade unions and other groups. These, in turn, operate in the context of cultural, political economic and legal systems. All these levels affect and are affected by the outcome of educational and training activities, which are shown below.

Source: Burgoyne, J. G. and Singh, R., 1977 (Ref 35)
Evaluation research studies consist of attempts to discover consequences of a programme or course event at various stages.

The three-part evaluation model given by Isbree and Howe\textsuperscript{36} is based on making evaluation responsive to the information needs of the people making decisions about training. They have provided the following model of evaluation of training in three acts:

1. **FOCUS** activities and the evaluators can proceed to **PLAN** to produce a blueprint for conducting the project. Once there is blueprint, then there will be **IMPLEMENTATION** of the executive plan of evaluation and holding discussions with the client (training manager) and there will be an outcome of evaluation by the training evaluator.

Nadler (1982)\textsuperscript{37} has provided the “Critical Events Model” (CEM) at every stage of the training programme, both evaluation and feedback mechanisms play important roles. They are at the heart of the training system having interactive relationship with every element of training process providing enough scope for their improvement.

**Source:** Burgoyne, J G and Singh, R, 1977 (Ref 35)
Chart 4.6: Evaluation of Training Process

<table>
<thead>
<tr>
<th>Focus</th>
<th>Plan</th>
<th>Implement</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Establish the General Scope and Objectives of the Evaluation Effort</td>
<td>To Produce a Blueprint for Conducting the Project</td>
<td>To Obtain Necessary Data, Interpret Them, and Provide Info to the Client</td>
</tr>
</tbody>
</table>

- **Focus**:
  - Identify Purpose(s) of Evaluation
  - Determine Client's Info Needs

- **Plan**:
  - Design
  - Will Design Produce Necessary Data?
  - Yes
  - Organise
  - Estimate Cost
  - Is Plan Acceptable to Content?
  - Yes
  - Print Options and Negotiate
  - Satisfactory?
  - Yes
  - Present Findings
  - Report to Client
  - No
    - Take Action Agreed Upon

- **Implement**:
  - Executive Plan
  - Does Info Satisfactory Objectives?
  - Yes
  - Will Info Satisfactory Client?
  - Yes
  - Discuss Options with Client
  - No

**Source**: Asia Rial Isbree and Christine Howe, 1977 (Ref 36)
The answers to the following questions can be had before arriving at any decision regarding the training designs from the evaluation procedures:

- Whether the job performances have correctly been specified in relation to the needs of the organisation or not.
- Whether the training needs are identified correctly on the basis of anticipated job performance levels or not.
- Whether the objectives have been formulated on the basis of pre-identified training needs or not.
- Whether an effective curriculum has been designed or not.
- Whether there is an appropriate selection of instrumental strategies (teaching/training methodology) or not.
- Whether the training has been conducted effectively or not.

The 'Evaluation and Feedback' process provides us an opportunity to streamline the training programme. However, the CEM formulated by Nadler does not reflect the various levels of training evaluation.

The design of training evaluation as portrayed by Singh is as under:

### a. One-Shot, Post-Test Design

![Diagram](chart.png)

In this, a single group is studied, only once, subsequent to some training, which presumed to cause change.

This is the simplest and more ineffective evaluation design, since it is impossible to discern the impact of training which is the concern of primary evaluation.
b. One-Group, Pre-Test, Post-Test Design

This design is slightly improved over the first, as the performance is measured in the relevant job setting before training and after training. The difference in the performance of trainees before and after training is a measure of the impact of training.

As the change occurs due to factors other than training, which is not considered here, is the basic limitation of this design.

c. Reversal or ABA Design: In this design, the evaluation is completed in three steps.

i. Taking a Base Line Design

ii. Implementing the Training and Measuring the Impact

iii. How do the Things Look Without the Training?

The ABA design is intended to guard against erroneous assumption that because two events occur at the same time, one of the events has caused the other. For example, sales increase occurred at the same time of the sales training programme that was conducted. But that does not mean that the training caused an increase in sales, as it might be due to any number of other factors. But, if training caused the improved performance, then stopping to train people will lead to determination of performance.

He has also provided

a) Time Series Design, where trainer measures the trainee several times both before and after the training at periodic intervals to compare and observe the trends in performance.
b) Non-Equivalent Control Group Designs  Unlike the above, it uses the control group and both experimental and control group are subjected to pre-test at periodic intervals and their performance is measured and compared.

c) Multiple Base line  Same performance is used with different groups at different times to determine whether the change in performance is caused by the training or just concomitant with the training.

Virmani has presented the Schematic Model of Evaluation based on the research methodology adopted by the research team at Administrative Staff College of India, Hyderabad. The Schematic Model of Evaluation has been presented in Chart 48.

The training programme constitutes a three stage system. The first stage is the period ‘before’ the learning experience during which the trainee has certain specific expectations from the training. The second is the ‘teaching or learning’ stage and the third is the time ‘afterwards’ when the learner, back on the job, is supposed to have integrated the training with his job performance.
Chart 4.8: Schematic Model of Evaluation

- Pre-Training Evaluation
  - Questionnaire
  - Group Discussion
- Objectives of the Boss and Trainee
- Objectives of the Trainer
- Test of Knowledge and Attitude of Trainee
- Susceptibility to Change
- Context Evaluation

- Input Evaluation
  - Reaction Evaluation
    - Degree of Agreement Between Trainers, Trainee and Boss's Observations
  - Learning Evaluation
    - Degree of Improvement in Knowledge, Skills and Attitudes
  - Job Improvement Plan
    - Individual Approach, Organisational Facilitators and Organisational Inhibitors
  - On-the-Job Evaluation
    - Management, Colleagues, Subordinates - Degree of Transfer
  - Follow-up After Six Months/One Year of Training on-the-Job
    - Retention of Acquired Change

- Training
  - Evaluation Proforma, Observation + Free
    - Associational Interview
    - Questionnaire
    - Individual Approach
    - Rebriefing and Group Discussion
    - Non-Participant Observation
      - Behavioural Dimensions
      - Interview (Structured) Followed by Open-Ended Interview
- Post Training Evaluation

Suggestions for Future Improvement

Source:Virmani, B.R., 1984 (Ref 39)
Pre-Training Evaluation
Assessment of Training Objectives of the trainee and his boss is the initial step in achieving goal congruence and creates awareness in the organisation about the needs of training. Test of knowledge, skills and attitudes help in deciding the level at which the trainer starts his inputs in order to ensure that trainees do not feel that they already are familiar with the subject.

Input Evaluation is required as the trainers should judge the results of their inputs in enduring learning and influencing the trainees' subsequent work performance. The trainees are also required to assess how far their training inputs contribute to the fulfilment of training objectives. Unless the inputs are in conformity with the objectives of the programme, the effects of training cannot be judged.

Post Training Evaluation
It includes Reaction Evaluation, Learning Evaluation, job improvement plan, on-the-job evaluation and follow-up after six months /one year. Job improvement plan is an action plan prepared by each participant for improving his job performance on the basis of what has been learnt during the training. The preparation of job-improvement by each individual is a stimulating opportunity for planning the transfer of training to the job by providing an opportunity to the trainee to adopt advanced management concepts and techniques in his day-to-day functions and the trainee can evaluate his own learning. Thus, the job-improvement plan does not merely remain a tool for evaluation but becomes an important element in the learning process. It was found that the benefits of transfer of learning was more after a time-gap when the participants had an opportunity to implement what they had learnt. In an organisation, where systematic job improvement plan was practised, it did result in positive benefits to the organisation. It was also found that the transfer was greater in the case of in-company programmes mainly because training inputs were geared to the needs of the organisation.

The above mentioned approach to evaluation is called as Action Oriented Research Approach to Evaluation. This aspect of evaluation is helpful in stimulating the trainers to think through the rationale for their activities, and enables trainees to think in terms of their objectivity of training by relating it to their job situation. The problems encountered in Action approach to evaluation are such that the criteria for evaluation could be difficult at the initial stages. There may be possible resistance from the trainers as it will require a lot of self-questioning in terms of developing the output. Self-questioning can always be a painful process.
Evaluation efforts have come to nought by producing inconclusive, disbelievable and ignorable findings. Training personnel are accused of making unsound evaluations and of being biased to ensure their programme survival. Trainers measure only those areas that are easy to measure. Evaluations may be too expensive and better evaluations may be virtually difficult to implement. The statistical work is too cumbersome and complicated to determine the relationship between training and results as too many variables are operating at the same time.

Darlene et. al. have listed nine common errors that occur in evaluating training programmes:

- Asking the wrong questions
- Questioning the wrong areas
- Failure to control extraneous factors in evaluation of training
- Failure to use appropriate control group
- Failure to assure High Quality Data collection efforts (Non-responses from participants resulting in missing data)
- Failure to make appropriate statistical adjustments (Evaluation may be biased)
- Failure to report the results of the evaluation in terms that are meaningful to the intended audience (Wrong information may have been collected and report may be written in technical jargon)
- Magnifying the findings and ignoring the potential problems
- Over-generalising the findings

Problems of end-term evaluation are also stated by Agochiya (Ref 26) as under:

- Participants' comments and reactions may not reflect the realistic and objective assessment of what happened in the programme
- It is not possible to quantify every aspect of learning. So, evaluation lacks comprehensiveness
- In case of long-term programmes, participants may find it difficult to recall the learning that occurred in the early stages of the training programme
- Moods and attitudes of the participants at the time of evaluation reflect on evaluation of training
- Some dominant trainers or dominant participants might influence the process of evaluation
- In the reaction level evaluation, participants concentrate more on general comments and impressions. So, trainers and training agency may lack specific data and information helpful to them.
Evaluation may not reflect the true value of the training programme because when an attempt is made to measure learning in an end programme evaluation, its relevance and usefulness cannot be appraised.

The learning in training programme does not only take place at the conscious level but also at the sub-conscious level. As the participants are not fully aware of this learning, they might find it difficult to express it in specific terms.

All participants do not learn in the same degree or in the same manner. The value they attach to each of the topics or modules covered by the programme varies in accordance with their own requirements and perceptions. Their evaluation will be based on these differentials.

If the goals of the training programme have not been properly established or there has been mismatch between the programme objectives and its contents, the evaluation could be flawed.

Internal validity and external validity are highly relevant to the results of an evaluation of training.

Internal validation is the series of tests and assessments designed to ascertain whether a training programme has achieved the behavioural objectives specified.

External validation is a series of tests and assessments designed to ascertain whether the behavioural objectives of an internally valid programme were realistically based on accurate initial identification of training needs in relation to the pre-specified criteria of effectiveness adopted by the organisation.

Internal validity threats as explained by Campbell are:

- **History**: Events, other than the training, occurring between pre and post training measures.
- **Maturation**: Ongoing processes within the individual such as growing older and gaining more experience, which are a function of time and which may change the individual in some fashion.
- **Instability**: Instability could be expected between pre and post training averages (dropping an individual after the pre-training measures, which were replaced by individuals, not pre-tested but were assigned the pre-test scores of the dropouts).
- **Testing**: The practice effect of taking a test upon the scores of subsequent testing on the same form.
- **Instrumentation**: Changes in the calibration of a measuring instrument (from 7 to 5 rating scale categories) lead to appearance of training effects.
- **Regression artefacts**: Natural tendency for persons who have been selected for training on the basis of their extreme high or low scores on pre-training measures just to exhibit shift in their scores.
* **Selection:** There may not be random selection of participants for the sake of comparison of control and experimental groups

* **Experimental Mortality:** Loss of respondents from the group that received the training and also from untrained comparison groups

* **Selection-Maturation Interaction:** Comparison between the group of young and the group of older workers whose reflexes are in a more rapid rate of decline

**External Validity Threats:**

- Interaction of pre-test with training Increase or Decrease in the sensitivity of individuals who have been pre-tested will have an influence on external validity in evaluation
- Interaction of selection with training The group characteristics influence an individual and his sensitivity for training
- Hawthorne effects Increased performance on the criterion measures due to the motivational effects of having been singled out for special treatment This leads to a stronger effect on the group receiving the training compared to the control group
- Multiple treatment interference Training seems to be effective because of several components of training that are jointly used in a programme rather than using it separately
- Irrelevant responsiveness Spurious indications of effects of training
- Irrelevant replicability of training The failure to reproduce evidence of a training programme's effectiveness in its evaluation

Campbell has recommended the use of quasi-experimental designs by the evaluators who lack the opportunity to employ true experimental design

Saxena has mentioned the constraints in evaluating training in case of government institutions/departments of private sector undertakings, public sector undertakings, and also the HRD centres of other financial institutions They are

- lack of expertise,
- trainees viewing evaluation as a threat,
- lack of adequate evaluation methodology,
- non-utilisation of findings because of fear of exposure of weaknesses,
- lack of financial resources,
- lack of time in collecting evaluation data,
- training institutions concentrate evaluation mainly on reaction and learning levels,
- negative practice in evaluation like ‘eye-wash’, ‘white wash’, ‘posture’ and ‘postponement’ might be adopted by training institutions for avoiding objectives, collection and analysis of evaluation data, and

- manipulated results make the evaluation process unscientific

Errors and flaws in training evaluation cannot be completely avoided but the drawbacks of evaluation of training could be overcome with the support of the top management and the participation of the concerned functionaries

Suggestions for Improvement in Training Evaluation Practices

✓ The organisation must clearly define its short-term and long-term objectives so as to enable the training system to achieve the goals

✓ The organisation should support transfer of training in building values, financial processes, reward-punishment system, creativity and climate of learning

✓ Training should be evaluated continuously

✓ Simulated learning exercises and group discussions should be encouraged for training evaluation

✓ Besides structured questionnaires, it is proposed to systematize evaluation of certain training programmes through a detailed consultancy project involving outside consultants

✓ Evaluation through objective-questionnaires both at entry levels and exit levels should be done

✓ If possible, the immediate supervisors of the trainees should be asked to prepare the confidential reports immediately after training and after one month of training regarding trainee’s performance

✓ Training quality can be ensured by evaluating the performance of a batch of participants soon after training by training departments

✓ Cost-Benefit analysis should be followed to ascertain the cost of training

✓ Employees’ turnover during training has to be analysed with proper reasons

✓ Constant reviews and pre and post-testing of trainees should be planned to improve the process of evaluation

✓ Evaluating benefits of training in terms of production, reduced cost, development in approach, style and result from the training process

Evaluation is really a research exercise to estimate a programme's impact, followed by implementing negotiated improvements Collins has identified the following ten evaluation key points, the trainers should check

➤ The level and the kind of evaluation best suited to the group’s needs
To have a clear idea of benefits of evaluation
Review the content and materials that are used in the training courses
To be sure about the benefits that the training is going to produce so as to gauge the real benefits that the training has produced
To check whether participants have retained the information correctly
Measure the effectiveness of activities, content and handling of sessions
Collection of information about the training in a planned and systematic way
To decide the basis for judging the success
To use the evaluation sheets for further processes
To see that the courses have long term effect on participant's views.

Rao in his study proposed the following essential ingredients for a successful evaluation

i Support of human resources, time, finance, equipment, availability of data source, records throughout the evaluation process

ii Existence of open communication channels among top management, participants and those involved in providing data

iii Existence of sound management process

An Insight into the Evaluation of Training

The studies on evaluation provide ample insight into the field of evaluation both theoretically as well as practically. Evaluation is the best measuring technique, which not only shows payback justification for the past budgets, but the evaluative data can also serve as the basis for the next year's budget. In this way, the budget control is more in the hands of training as it can bargain for its funding and also enables to understand how training has contributed to the organisation's objectives. Donaldson and Scannel have stated the outcomes of training in the form of reduction in cost, grievances, accident rates, absenteeism and customer complaints, which can be expressed in the form of qualitative and quantitative results. The value of training can be expressed by comparing productivity of employees before and after training and cost per trained and untrained employee. By adopting the cost-benefit framework, to assess the effectiveness of training, it can be proved that the benefits of training can exceed its costs and also to significant extent.

Kirkpatrick has described some of the best experiments that are used to measure the effectiveness of training programmes in terms of job behaviour and results. He has stated that the training director cannot borrow evaluation results from another but can borrow evaluation techniques. However, trainees themselves should be involved in analysis of their own training needs and effectiveness to enhance their emotional
commitment to the success of the venture, which helps to ensure needs identification and evaluation accurately. Ettlie has advised a general model that is followed in predicting training effectiveness through eight independent variables such as task-specific self-esteem, motivation, stress, task complexity, job specific attitude, feedback, change and formal education. He has concluded that the evaluation efforts in an organisation are not satisfactory. Four major research designs such as before and after or AB design, the control group design, the reversal or ABA design, (The effects of any type of training are irreversible, making the reversal design inappropriate for training evaluation research) Multiple Baseline Design which includes across behaviours, across subjects and across settings, were given by Brown.

Evaluation helps in decision making in the method of training, amount of training, trainer skills, duration and pace of training, learning and its application and overall effectiveness of training. Pareek has elaborated the areas of evaluation such as pre-training factors, training events, training management, participant development, organisational development and post-training factors. He has identified the clients for evaluation namely, participants, training institute, ultimate users and financiers of training. Questionnaire is also considered as an important evaluation tool which helps to understand the real feelings of the trainees. Neagle and Fisher have mentioned the significance of questionnaire, as an important evaluation measure which covers four main time zones, namely pre-course (acts as a form of self-analysis and assessment) during course, end of course / post course (to test the reactions of trainees to training) and longer time post course (method of measuring transfer of learning, changes in behaviour).

Participants' reactions may be obtained by various group-in-action devices including self-appraisal, movement, art and individual and group critique. Using both qualitative and quantitative analysis, evaluator can provide feedback, assess learning, measure transfer of learning to the work place and ultimately improve training programmes. Data on sales, costs, production, turnover and defects can be utilized for studying the impact of learning on organisational effectiveness. Swierczek and Carmichael combined qualitative participant responses by open-ended questions with the quantitative measurement of training effectiveness gained through statistical analysis of pre-test and post-test data.

A survey on trainers has been conducted by Kazhakkai in four groups of organisations such as public sector companies, private sector companies, autonomous training institutions and consultancy organisations and he has shown a general tendency to use evaluation mainly at the reaction level. This shows before-and-after
assessment of training and cost-benefit analysis of training has not been used in evaluating the training. TEE\textsuperscript{59} is a practical Training Effectiveness Evaluation that can be applied to any training programme in industry, which consists of an effective evaluation plan, tools for measuring training effectiveness in terms of satisfaction, learning and performance appraisal report Birnbrauer\textsuperscript{60} suggested in-training performance tests in actual or simulated job environments for the end-of course evaluation. Performance tests are the best means of assessing the training effectiveness. Performance tests for process and product\textsuperscript{61} enable to understand how the learner completes the task in a reasonable time with the expected quality of product.

Robinson\textsuperscript{62} has identified three types of validation as Internal Assessment to measure whether or not the objectives have been met, External Assessments to measure whether those objectives have been related to original training needs analysis and verification of programmed text, by comparing the results of the target population with established criteria. In order to make the process of evaluation smooth, there is a need to maintain adequate records. The evaluation can be continuous evaluation\textsuperscript{63}, course evaluation to measure usefulness of session and to improve future sessions, evaluation against objectives, evaluating for promotion and evaluating long-term results.

Evaluation of training should also concentrate on how far the trainees have gained from the training and whether it has helped in enhancing their knowledge or not. Erikson\textsuperscript{64} has developed criteria for evaluating the training such as whether the course objectives have been met, whether trainee’s level of knowledge is increased, whether trainees’ retention of knowledge taught in the course varies depending on the ability of the instructor and whether there is enough emphasis on the required material or concepts.

Questionnaire is no doubt, a very useful weapon in the evaluation study but its drawbacks cannot be overruled. Christopher and Smith\textsuperscript{65} have highlighted two evaluation methods of interactive learning material, namely, essay and open ended questionnaire. They have stated that many respondents reply very briefly to questionnaires, which may not be satisfactory to do a detailed analysis of games. Burnard\textsuperscript{66} also has conducted a study on similar lines of evaluation through questionnaire apart from focusing on self and peer evaluation.

A qualitative participant centred approach\textsuperscript{67} to evaluation where open-ended face-to-face interviews with participants are added to the quantitative evaluation techniques, produces new insights for policy-making purposes. This method of evaluation may
have positive impact on participants as they feel valued, important and listened to. An anonymous evaluation is a good idea. Even though the participants have given feedback without fear of retribution, there is every chance that participants can make negative accusatory and potentially harmful comments. Anonymous feedback does not let a trainer follow-up for clarification.

More companies are recognising the pressing need for evaluation and becoming more strategic about using evaluation tools. Kossek et al. have evaluated the general effects of Career Self-Management training, using quasi-experimental design and have found that the formal training effort was not successful in remobilising people to encourage in Career-Self-Management activities and when done as an isolated human resource strategy, the likelihood of trainees engaging in career self-management behaviour would be decreased. Another evaluation tool Cost Consequences Analysis (CCA) offers a “course-grain” estimate of return on investment. CCA differs from other evaluation tools, which emphasises outcomes. Hopkins has mentioned a step-by-step plan for creating an evaluation system that ensures training instructors deliver standardized courses, the way they should be delivered. He has also given tips on creating evaluation forms, evaluation checklist and how to group “yes or no” items appropriately regarding observations of an instructor’s behaviour and actions.

The purposes of evaluation of training should be clear-cut, i.e., whether it is to understand trainer’s effectiveness, training infrastructure, trainees reaction or post training performance. Eight decision points in planning the training evaluation discussed by Rao are as under:

1. Whether an evaluation be done? Who should evaluate?
2. Purposes of evaluation such as justification evaluation (undertaken as reactions to mandates) and determination evaluation (programme improvement and impact evaluation) to make evaluation efforts more fruitful.
3. Measurement of training in the form of delivery, programme content, materials, impact of training on individuals, through learning, behaviour or performance change which can be measured through pre-test and post-test.
4. The scope, duration and comprehensiveness of evaluation.
5. Who has the authority and responsibility at different stages of evaluation?
6. The sources of evaluation data, such as reactions, opinions, test results of participants, managers, production records, financial records, personnel records, safety records.
7. The process of collecting data and compiling it through various methods like questionnaires, tests, interviews, studies, human resource factors (satisfaction,
turnover, absenteeism, accidents, grievances dismissals) cost-benefit analysis and feedback. The data can be collected before training, during training and after training for evaluation. There may be a selection of treatment or control groups with which the performance of the test group can be compared.

8 Reporting of analysed data of evaluation

These decision points intend to increase awareness of and interest in the evaluation of training, to improve planning skills and to encourage more systematic evaluation of training.

Truly speaking, the real training effectiveness could be measured in terms of how participants are behaving in the post-training work situation. If there is a slight change in their mindset, attitude and values, then one can conclude that training has made an impact on the employees’ work life. Dayal has highlighted two kinds of measurement that are necessary to evaluate training that aim at influencing person-related behaviour. They are measures of changes within an individual and actual behaviour changes at work. Measuring the change within the individual is by considering before and after training exercises such as problem solving and decision making and analysing a series of incidents in which the individual is involved at work. Observations over a period of time and in-depth interviews by counselling experts and clinical psychologists are also the measures that indicate the changes within an individual. Actual behaviour changes can be assessed only at the place of work. He also stated that the behavioural changes on account of training inputs have to be assessed within a short time. This is because the time-lag may put the respondents into confusion to recall pre and post training behaviour of the trainee. Consequently, the data obtained in the interviews could be impure.

Transfer of skills on the job is not only with the effort of the participants but also with an active support of the top management and divisional heads. Kailash et al. have evaluated the effectiveness of various training programmes offered by Tata Steel. Effectiveness of training has been measured in terms of various outcomes such as satisfaction level, reaction and feedback of participants, their immediate supervisors and departmental heads. They have concluded that the participants had benefited from the programme, but transfer of learning was not up to the expectation of superiors and the training programmes could meet the objectives only to a limited extent. In this case, there may be corrective measures required such as supportive atmosphere by the concerned heads for the participants to transfer their learning on the job or updating of programme and change in the methodology of training.

Luis et al. have studied the evaluation process followed by Allied Signal’s Garrett Engine Division, which he presented in four levels.
Level 1: Trainees rated the course and instructor at the time of training (participant's reaction to the training at the time of training)

Level 2: Participants were given an after training test. The results of these tests were compared against scores on a pre-test and against the scores achieved by a group of workers who did not go through the training (the control group)

Level 3: Participants used their new skills and knowledge back on the job

Level 4: The evaluation team examined when the training made a real difference to the company's bottom line (Company's return on the training investment)

The significance of estimating the cost and benefits of a training programme cannot be overruled as it provides value to the training. When the values and benefits of the training are pronounced properly, the management of any organisation or a business undertaking feels that there is a compelling reason to continue the training effort

Application of Evaluation of Training in Banks

Training is an integral part of developmental process of all types of organizations including banks. In banking sector there are various categories of employees performing varieties of functions. The nature of activities varies depending upon the cadre of the bank officials. The nature of training need also varies based on their work.

Determining the training needs through formal and informal routes help the bank to assess the training needs of the employees at the individual levels and at the group level. Along with training needs, assessment and evaluation of training is an important facet of banking training process.

Banks have to understand whether the training they have delivered to their employees are efficient and effective in achieving the prescribed objectives. And thus, they should attempt to obtain information on the effects of training programme and should assess the value of training in the light of that information. The systematic collection of information is essential on the part of the banks to design the training system into more strategic and dynamic one.

Different management experts like Kirkpatrick, Hamblin, Warr, Bird and Rackham have given lot of insight into the aspects of evaluation of training in the general context. Practically it becomes very difficult for the banks to execute the evaluation process from all angles, that is, by covering various aspects such as reaction, learning behaviour, results, content, outcome and ultimate value. However, compromising on these levels lead to confusion and uncertainty regarding the quality of training.

The Reaction Level as suggested by Kirkpatrick (Ref 21) can be very well practised by the banks to know how trainees have reacted to the training. If the bank takes up 'Reaction level' evaluation properly, it can get an insight into the overall effectiveness.
of the trainer especially in the field of teaching methodology, delivery of the topic, attitude of the trainer, usage of training inputs, training infrastructure and overall effectiveness of the training in satisfying the needs and interests of the trainees. The suggestions also can be gathered by the bank regarding the ways to make the sessions more effective.

The banks can design the Reaction Evaluation Forms in such a way that the comments are not only valued qualitatively but also can be tabulated and quantified. Instead of trainer himself collecting the reactions of the trainees, another person on behalf of the banking training system can collect the reactions of the trainees in order to make the process of reaction evaluation more meaningful and unbiased.

Reaction evaluation alone does not assure learning. Evaluating in terms of ‘Learning’ is essential for the banking training in order to understand the learning of the trainee before and after training. Learning of the trainees should be measured before and after the training quantitatively (objectively). Comparison of pre and post training scores and responses can prove the extent of learning.

The training effectiveness of the bank cannot be ensured only with the Reaction and Learning evaluation. Bank can successfully implement the comprehensive “Outcome” Evaluation, as suggested under CIRO approach by Warr, Bird and Ruckham. The Outcome evaluation should necessarily include the following aspects:

a) The effectiveness at which the trainee has transferred the knowledge/skill/attitude to the job.

b) The extent of changes in the job performance that could be attributed to training.

The appraisal of the performance should be not only made by the person, who has received the training but also by his/her superiors.

The statistical analysis can be made to compare before and after training performance and by relating changes to the training programme at least to some extent. The post training appraisal should be made by the banks few months later the training so that the trainees have an opportunity to put into practice what they have learnt.

The post training performance of the employees can well be compared with the performance of the control group (the group not received the training) to analyse the effectiveness of the training, more accurately in changing the behaviour, skill, competence and performance on the job.

Apart from the analysis of post-training performance, the Outcome Evaluation by the banks can also include the following areas:

1. Improvement in productivity, profit, revenues and reduction in cost.
2 Ability to expand and do more business

3 Improvement in customer satisfaction which is indicated by reduction in customer complaints, prompt delivery and adhering to schedules

4 Reduction in attrition, absenteeism, conflict and grievances

In case the superiors and the trained employees investigate the relationship between the job behaviour of the trained employees and the ultimate value derived by their behaviour is in the form of satisfaction on the lines of above four aspects, then they can attribute the contribution of training, approximately, which satisfies the economic and social objectives of the bank. Thus, the banks can apply the 'Outcome Evaluation' of training by including necessary aspects, depending upon its thrust areas and strategies.

When training is imparted with the intention of improving the skill, behaviour and attitude of the employees, it becomes imperative that the bank has to make itself sure, whether the training imparted by the banks must include Internal Validation (assessments designed to ascertain whether training programme has achieved the behavioural objectives) as well as External Validation (Ascertaining whether behavioural objectives of an internally valid training programme were realistically based on an initial identification of training needs in relation to the criteria of effectiveness adopted by the organization) as explained by Hessling (Ref 4).

The Formative Evaluation (Ref 8), focusing on the improvement of training process and Summative Evaluation focusing on the results also can be applied by the banks by involving Reaction, Learning, On-the-Job Behaviour and Business Results as given by Kirkpatrick. Instead of splitting the post training evaluation into an assessment of on-the-job behaviour and business results, banks could take up Comprehensive Outcome Evaluation which includes behaviour as well as results.

The banks can imbibe the evaluation of training programmes depending upon their availability of resources and thrust areas of business. However, no single evaluation technique is foolproof. But it gives an assurance to some extent whether the training is achieving its preset goals and objectives. If an overall evaluation of training programmes in banks can establish the truth that the training has improved the overall situation at least by some per cent, then the banks have the reason to feel proud about it and they can introduce further improvements in the training programmes so as to achieve improved results in future period of time.

The present study, "training and employee development in commercial banks" covers the reaction of employees who have undergone training. Assessment of the skills of
the employees (who have undergone specific training programmes) before and after the training were analysed, so as to get a proper view of the improvement in the skills after undergoing training. Evaluation of post training status of the bank employees or evaluation of transfer of training were carried on at two levels: the assessment of employees’ performance after training, through the superiors and through employees’ self-opinion on application of training on the job. There was also a verification carried on to check whether the training needs of the bank employees were properly identified or not. The present study has made an evaluation with a view to understanding the efficiency and effectiveness of trainers, practicability of training, infrastructure and other facilities for training and effectiveness of training in enriching the knowledge and skill of the employees. The evaluation of external training was also undertaken to understand the cause of external training being more satisfactory compared to internal training. The study has also covered the trainers’ opinion on teaching, management support, faculty development programmes, investment in training by the management and their opinion on trainees.

On the whole, the present study has concentrated on the “Summative Evaluation” by understanding the opinion and reaction of the employees who have undergone training in banks. The study has also focused partially on “Formative Evaluation” by determining the amount of transfer of skills to the employees after training and brings out the truth of those skills that were not mastered even after undergoing training.

**Conclusion**

To understand the consequences of training, a continuous monitoring of training function, ‘Evaluation of Training’ is a necessity. However, the process evaluation should be acceptable to learners, trainers as well as the management so as to derive the objectives of it. The evaluation measures should neither be threatening nor be expensive or time consuming but should be highly practical in giving a feedback on the trainees’ performance, on programme, on training materials, on trainers’ performance, on consistency of standard and management’s concern. Formalisation of evaluation process provides professional approach to training, justifying for investment in training function. If we do not have an evaluation process, trainees do not know whether they have achieved the desired outcome, trainers lack feedback on the quality of training and money may be wasted because they are not aware of the poor quality of training.

There is one truth that has to be accepted with regard to any management tool, so also with an evaluation of training. The models, processes and methods of evaluation are not an end in themselves because if an organisation is carrying on the evaluation process, it does not mean that the training will be an ultimate success. But an evaluation of training certainly helps the training management.
gain a better understanding of the training system. It also makes human judgments more systematic and objective and less capricious and subjective. If the results of evaluation of training are taken seriously and proper modifications made thereupon, it can be a very valuable training management tool. Used otherwise, can be misleading and may lead to poor decisions.

Even though the banks are trying hard to effectively cater to the needs of the industry through training, the gap between training needs and training efforts remain widened. This has been examined analytically in the next chapter.

References


14. L., Rae - End of Course Validation *The Training Officer* October 1983, PP 300-10


| 19 | Tanuja Birla, *Effective Managers, Training and Development* (Indian Management Association, New Delhi, 1999, PP 7-9) |
| 33 | Pamela Kiddler and Janice Rouiller, *Evaluating the Success of a Large Scale Training Effort* (National Productivity Review, 16(2), 1997, PP 79-82) |


40 J Aliden, - Evaluating in Focus Training and Development Journal, ASTD, 32(8), Oct 1978, PP 46-50


42 D T Campbell, - From Description to Experimentation Interpreting Trends as Quasi-Experiments In Harris, C W (ed), Problems in Measuring Change, University of Wisconsin Press, Madison Wisconsin, 1963, PP 212-242

43 D T, Campbell, - Reforms as Experiments American Psychologist, 24(4), 1969, PP 409 - 29

44 A K Saxena, - Training Evaluation for Results Rawat Publications, New Delhi, 1997, PP 59-86


50 Donald L Kirkpatrick, - Techniques for Evaluating Training Programmes Training and Development Journal, ASTD, 33(6), June 1979, PP 78-92


159


64. Paul R. Erickson, - Evaluating Training Results *Training and Development Journal*, ASTD, 44, Jan 1990, PP 57-59

65. Elizabeth M Christopher and Larry E Smith, - Leadership Training A Source Book of Activities Viva books Pvt Ltd, Delhi, 1995, PP 67-69


70. David Wilkinson, - Cost Benefit Analysis vs Cost-Consequences Analysis *Performance Improvement Quarterly*, 12(4) 1999, PP 71-81


