CHAPTER - I

Introduction
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INTRODUCTION AND DESIGN OF THE STUDY

Training is widely understood as communication directed at a defined population for the purpose of developing skills, modifying behavior, and increasing competence. Generally, training focuses exclusively on what needs to be known. Education is a longer-term process that incorporates the goals of training and explains why certain information must be known. Education emphasizes the scientific foundation of the material presented. Both training and education induce learning, a process that modifies knowledge and behavior through teaching and experience.

Employee training is far more prevalent today than it was twenty years ago. Today, almost all organizations provide some type of training for their employees. For some organization, training is a very formal process. Entire departments are devoted to conducting both initial and ongoing employee training programmes. The motivation for providing such training varies considerably from organization to organization. A few organizations are genuinely committed to enhancing the skills and competences of their workforce. Other organizations conduct training primarily to meet required job safety regulations. Sadly, many organizations conduct training simply for appearance sake.

Regardless of the reasons or level of commitment to the process, the need for employee training has increased significantly in recent years. This increase is directly related to the rapidly expanding use of technology within society in
general and business and industry in particular. It has also been precipitated by a renewed emphasis on quality and customer satisfaction, and the non-traditional management philosophies which are driven by those emphases. Moreover, organizations are beginning to recognize that learning truly is a lifelong endeavour and developmental activities such as employee training have a profoundly positive impact on job satisfaction, productivity and, ultimately, overall profitability. The fact is that training, when carefully developed and appropriately implemented, can have a desirable impact on the bottom line.

The underlying aim of all employees training is to increase efficiency. Other outcomes are really auxiliary and/or incidental. While goals such as facilitating the personal and/or professional development of employees are commendable, they do not constitute the primary impetus for most training efforts. Organizations exist to make money. The desire to optimize profitability drives most management decisions. Management consistently views employee training as simply an additional avenue for enhancing the total financial return on investment, rather than detracting from the importance of employee training programmes. However, this view inherently provides the training manager with the kind of credibility essential to success.

THE ROLE OF THE TRAINING MANAGER

"Training manager" seems to be a fairly common job title in any organization of considerable size. Many smaller organizations also have individuals whose key responsibilities entail some form of employee training. Furthermore, most large corporations have a staff of several full-time
professionals whose sole function is to assess training needs and institute training programmes based on the organization’s needs. While the length of time spent managing a training programme tends to be related to organization size and other factors, all training managers share at least one common characteristic. Eventually, they have to demonstrate the effectiveness of their training pursuits and thus justify the need for their position. This is, after all, the age of accountability.

Few organizations would seriously consider turning over their manufacturing operations to a person with no manufacturing experience. Yet many organizations routinely entrust their training initiatives to managers who have little or no background, expertise, or formal education in the area of employee training. Management suddenly recognizes a need for training - or is informed of their need by corporate headquarters - and delegates the responsibility for implementing a training programme to someone in human resources or a related department. While the selection of an appropriate training manager is indeed a crucial first step, it is only a beginning. Unwavering management support must permeate all phases of the training process.

New training managers should make it a point to educate themselves about fundamental training concepts and techniques. Attendance at local or regional training conferences is a must. Consider taking a class or two at a local community college. Classes on teaching methods or establishing goals and objectives for training programmes would be appropriate. It would also be advisable to join relevant associations and other organizations that have
employee training as their focus. Reading always helps, as does seeking advice from training managers of other organizations. Pay particular attention to what has been successful, and what has not worked so well, at similar organizations. Take a little time to prepare for the challenges that lie ahead and to anticipate the inevitable difficulties that will be encountered. Training is a process that can only be mastered through experience and practice.

Of necessity, training managers must continually focus on the effectiveness of their programmes. Continuous improvement is as important to the training process as it is to the more tangible (and visible) areas of manufacturing and administration. A good training manager is always cognizant of the fact that their efforts must support profitability in a demonstrable and unambiguous manner. Support from upper management is inherently linked to the training manager’s ability to successfully illustrate such a connection. This can be especially difficult when economic conditions are less than favourable. When the balance sheet indicates that budget cuts may be necessary, one of the first areas to receive careful scrutiny is employee training.

In many instances, training programmes are severely limited or eliminated altogether, primarily because the training manager was unable to convince management of the long-term financial benefits often resulting from training programmes.

Admittedly, new training managers are often anxious to get the ball rolling. They always seem preoccupied with instituting some type of training - any type of training - regardless of actual employee needs. While a few training
successes fairly early in the training manager’s tenure are certainly good from a credibility standpoint, it is imperative that all training endeavours be based on an overall training plan that has been carefully developed. Being able to say that a certain number of training sessions have been conducted is only part of the equation. Management will still need to be convinced of the utility of those activities; i.e. what improvements have been realized and what problems have been solved as a direct result of training efforts?

**TIME AND OTHER CRITICAL FACTORS IN TRAINING**

Successful employee training programmes demand a significant investment in terms of both financial and human resources. They can also take up a great deal of time which can adversely affect production schedules and deadlines. Management is usually aware of these factors and therefore tends to question the necessity of employee training programmes when revenues are scarce and/or production demands are at a peak. Moreover, some organizations decide on training topics based on session titles and/or other arbitrary considerations and predetermined time allotments. These are critical mistakes, but they are characteristic of many organizations.

Some organizations make the critical mistake of trying to fit the topic to the time slot. In other words, the amount of time allotted for training is determined by factors independent of the nature of the material to be covered in the session. Time should be allocated based on the value placed on the skills and competences that are to be transferred through the training programme. Selecting a training topic solely by the length of time employees can be permitted to leave
their regular job responsibilities often dooms the entire effort without ever giving it a legitimate chance for success.

Once a training need has been identified, the training manager, working closely with other concerned parties, should decide how much time will be realistically needed to endow employees with the new competences. The desired outcome; i.e. the specific skills that the employees are to obtain, should be instrumental in establishing the length of an individual training session. This is another reason why training programme goals and objectives are of critical importance.

Many of the more progressive organizations have also recognized the prudence of changing the focus of their training programmes away from the trainer and more towards the trainee. Trainers, often out of sheer necessity, tend to spend an inordinate amount of time trying to decide how best to fit a given topic into a particular timeframe. Their preparation is concerned more with staying within the established time constraints than with the actual development of usable skill sets. The proliferation of available instructional technologies has helped to put the employee back at the centre of the training process. The length of the training session (and the entire training programme, for that matter) should be determined solely by the amount of time anticipated to achieve the desired outcome. In other words, the time devoted to a given training topic should be determined by how long it takes employees to master the skills that the organisation deems important.
When exposed to skills-oriented training, it has been shown repeatedly that adults do not tend to acquire new competences overnight. Time is needed between training sessions for reflection and practice. In general, employees can absorb only about two or three hours of meaningful content in any single training day. Moreover, that rate tends to decrease exponentially as the number of consecutive training days increases. It only makes sense that training is most effective if it is conducted over the course of several days or weeks. Despite these realizations, some organizations persist in concentrating their training efforts into lengthy, intense marathon sessions to ‘get it over with’.

Another critical dimension in the development and implementation of employee training programmes concerns the number of people in each individual training session. Employees learn more efficiently in small groups. Conducting skills-based training with large groups of employees may be financially advantageous, but such an approach seldom produces any meaningful results. Furthermore, larger groups are more difficult to co-ordinate and usually force the trainer to rely more heavily on the lecture format. True, larger groups can often be divided into smaller groups for some training purposes, but having too many small groups can lead to anarchy. Most training sessions should be limited to no more than 20 employees and less is always better.

On the surface, having large numbers of employees in each training session seems cost-effective. The organisation appears to be getting “more bang for the buck”. But this perceived benefit is only an illusion when the participants in those sessions fail to obtain the required skills and competences. Large groups
are appropriate only for the dissemination of information. They are not practical for most training purposes. Short, multiple training sessions carried out over a considerable time-span with minimal numbers of trainees in each session seems to be the most successful way to conduct training.

Training can be a useful tool in helping to resolve significant organizational or management problems. Management often recognizes that training in technical skills delivers real benefits, but will blanch at the thought that training in non-technical areas can also be of great value. If it could be proved that the results of training in high-level inter-personal skills or problem-solving skills could be measured, the trainers would be taken more seriously by their potential customers.

Being able to prove the effectiveness of training is important, not only in justifying the expense of training but also the original reason for carrying it out. Some organizations still pay only lip service to training in its many manifestations. Even those which are committed to training will consider that evaluation of training is difficult and time consuming - and difficult to carry out.

There are enlightened individuals and organizations where rigid attitudes towards training do not apply and where training is used to resolve problems in business or management processes. Training will not automatically provide the answer to all organizational or management problems - to be effective, it must be part of an appropriate solution to specific kinds of problems. It is no use resorting to a training course when the real problem lies with an individual or group of individuals, and then blaming training when things go wrong.
THE ROLE OF HR IN TRAINING

Most medium to large organizations have a centralized training area, often called a Human Resource Development (HRD) department. HRD is typically a part of a human resources (HR) unit. Other HR units might include recruitment, selection and compensation. The role of the HRD department is to improve the organization’s effectives by providing employees with the Knowledge - Skill – Attitude (KSAs) that will enhance their current or future job performance. The focus is on the development of job-related KSAs. At the same time, effective training must address the personal needs of employees, helping them to learn, to grow, and to cope with the issues that are important to them. Focusing on KSAs that do not meet the needs of the organization is not productive. Likewise, unless the new KSAs are seen as relevant and important by the employees, they won’t transfer back to the employee’s job, wasting organisation’s resources. Truly effective training strategies and practices are those that meet the needs of the organization while simultaneously responding to the needs of individual employees.

VALUE OF TRAINING

Training enables employees to get acquainted with jobs, and increase their aptitudes, skills and knowledge. It helps the newly recruited employees to become productive in the shortest duration of time. Even for the experienced workers, it is necessary to refresh their available skills and acquire new ones to keep up with the technological upgradations, new methods, techniques, new
machines & equipment for doing the work. Thus training is not a one step process, but it is continuous and never ending.

The Main Values of Training from the point of view of trainees are:

a) Reduced learning time
b) Better performance
c) Reduced supervision
d) Economic advantages
e) Increased Morale

EFFECTS OF TRAINING IN THE ORGANIZATION

As training changes to meet the needs of today’s environment, evaluation of training is also changing. The question of strict financial accountability is losing its relevance. If bottom line proof of training effectiveness is hard to get, look for the evidence of overall impact of training on the organisation.

It is difficult to argue against the need for effective training in today’s reengineered, downsized, globalized, technologically advanced economy, where useful knowledge has the half-life of a chocolate bar in a nursery. Is it too simplistic to say that if training feels like the right thing to do, it probably is the right thing to do?

The past two decades have seen an increasing emphasis placed on innovation as a major tool for organizational success. Consequently, organizations have tried various strategies to improve innovativeness of the employee, such as recruiting individuals of higher creativity, setting up idea capture schemes or introducing appraisal systems to spot creativity and reward it.
However, one popular approach considers that existing levels of creativity can be enhanced by improving usage of specific thinking techniques such as brainstorming, mind-mapping, synectics, lateral thinking or morphological analysis. A multitude of creativity training courses have arisen to show how the above methods can be used to generate and evaluate new ideas regarding a work issue; there can also be coverage of other aspects such as opportunity or problem finding in the first instance and the later implementation of ideas.

In gauging the effectiveness of creativity training, four key outcome criteria need to be addressed. Innovation is defined as covering both the generation of novel ideas and their application to produce new products, services or ways of working (Amabile, 1988). Therefore, we need to assess not only the extent to which trainees have generated more ideas about job improvements but also the implementation of those ideas at work as a result of the creativity training. Amabile (1988) and Sternberg and Lubart (1996) propose in their theories that a combination of individual and environmental factors will influence these two innovation outcomes. For example, in terms of individual factors, a person's knowledge of the topic domain, their general ability to think creatively and their attitudes to innovation are seen as important influences while the presence of support and resources in the work environment should also be significant. The creativity training should improve employee idea generation and implementation by mainly enhancing two aspects of the individual. This would be in terms of increasing the creativity knowledge and skills of trainees, such as how to use divergent thinking techniques, and improvements in attitudes to
innovation, since research in both the innovation (Sternberg and Lubart, 1996) and training (Tannenbaum and Yukl, 1992) domains has indicated the power of motivation and confidence in influencing employee actions in the workplace. By using these four criteria, we can get a thorough assessment of the impact of training on the individual. For example, we may find that trainees report little implementation of new ideas at work as a result of training. By carrying out this four-fold evaluation, we can pinpoint whether this lack of impact is due to the training failing to provide the requisite knowledge or motivational boost to trainees.

RESEARCH DESIGN AND METHODOLOGY

This section focuses on the research design and methodology. This Section serves as a basis for the development of interview questions that is used to probe the information from selected participants in respect of troubling issues. The focus of this section is on the research design and methodology that directs the investigation. The section’s purpose is to explain the rationale behind the methodology used, and also to indicate how the research was conducted. It further outlines the steps that are taken to ensure data gathering, analysis, case selection, validity and reliability and ethical consideration of the study. The research design will be briefly provided. The research design adopted for this research is a Quasi experiment and is now briefly explicated.

RESEARCH DESIGN

The research design is the plan for the study, providing the overall framework for collecting the data, outlines the detailed steps in the study and
provides guidelines for systematic data gathering (Strauss & Corbin, 1990:17). They further state that a research design is similar to an architectural blueprint which plans on organising and integrating results in a particular end product. Whilst Booyse et al., (1993:23) define research design as the consideration and creation of means of obtaining reliable, objective, generalised and valid data by means of which formal announcements about the phenomenon may be confirmed or rejected. They further indicate that the research design is a plan that will be applied during the investigation in order to answer the research questions, and aims at trying to ensure that answers to questions are accurate ones. The Quasi-experimental research design is now briefly elucidated.

**QUASI-EXPERIMENT**

A quasi-experiment is a scientific research method primarily used in the social sciences. “Quasi” means likeness or resembling, so therefore quasi-experiments share characteristics of true experiments which seek interventions or treatments. The key difference in this empirical approach is the lack of random assignment. Another unique element often involved in this experimentation method is use of time series analysis: interrupted and non-interrupted.

Since quasi-experimental designs are used when randomization is impossible and/or impractical, they are typically easier to set up than true experimental designs; it takes much less effort to study and compare subjects or groups of subjects that are already naturally organized than to have to conduct random assignment of subjects. Additionally, utilizing quasi-experimental designs minimizes threats to validity. Since quasi-experiments are natural
experiments, findings in one may be applied to other subjects and settings, allowing for some generalizations to be made about population. Also, this experimentation method is efficient in longitudinal research that involves longer time periods which can be followed up in different environments.

**NEED FOR THE STUDY**

Indian Railway is a vast network – the Second largest in the world, which carries *14 Million people every day across the length and breadth of the country and carries *1.6 Million Tonnes of Freight every day and operates around *14300 trains per day, all thro’ the year. It has inherited a system, which stood firm for more than 150 years.

The new millennium will be a millennium of knowledge and competition. This inevitably means that people as carriers of knowledge, will be most important asset of the organization. Indian Railway will therefore endeavor to make every employee’s career an exciting one with adequate opportunities for personal development.

Indian Railway should transform itself from a provider of rail transport to a provider of total logistics based on customer needs, in which actual rail transporter is a vital link in the logistics chain. To withstand the competition, the Indian Railway needs to develop a new management system and expertise along with a matching organizational culture and management ethos so that the entire HRD Strategy is aligned with Business Goals.

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* Status Paper on Indian Railway
Indian Railway has a workforce of nearly 15.8 lakhs. The size of workforce is on account of

a) Railways historically being Labor Intensive

b) In-house health, security, and production facilities.

*Hence major proportion of manpower has skills of lower levels.

Modernization of Indian Railway did bring about change in the ratio of skilled to unskilled workforce from 25: 75 to 55: 45 in the 90’s. However, in spite of the heavy technological inputs during the last 3 decades neither corresponding reduction in the strength of manpower nor the desired shift towards higher skilled workforce has been achieved.

**OBJECTIVES:**

1. To list out association between the training programme effectiveness and certain selected Socio – demographic characteristics of the trainees.

2. To study the relationship between reaction, learning, transfer and result of training.

3. To measure the effectiveness of training programme during pre and post training period.

4. To develop indigenous intervention technique namely Computer Based Tutorial (CBT).

5. To suggest suitable measures for improving existing training system.

* Source: Corporate Plan - Indian Railways (2000 - 2012)
HYPOTHESES:

1. There is association between socio-demographic characteristics and training effectiveness.

2. There is an improvement in the effectiveness of training during pre and post training period.

3. Reaction, learning, transfer and result are interrelated.

4. Present training system is effective.

UNIVERSE AND SAMPLE SIZE OF THE STUDY

The researcher, with the help of The Principal, Zonal Railway Training Institute, Tiruchirappalli, got the list of trainees enrolled in the training programme in the month of January 2008. This constitutes the universe for the study. Hence the universe of the study was 1000. From the universe 600 was considered as the sample size. The researcher adopted stratified random sampling technique. The strata were induction trainees, refresher trainees and promotional trainees. From each stratum 200 respondents were taken. The sample is obtained by using **Stratified Random Sampling - disproportionate Technique**.

Stratified random sampling is a method of random sampling. In stratified sampling, the population is first divided into homogeneous groups, also called strata. Then, elements from each stratum are selected at random according to one of the two ways: (i) the number of elements drawn from each stratum depends on the stratum's size in relation to the entire population ("proportionate" sampling), (ii) the number of elements sampled from each stratum is not proportionate to the
size of the stratum ("disproportionate" sampling); In this present research the
researcher adopted stratified random sampling – disproportionate.

PRE TESTING

In order to test the validity of the scale constructed by the researcher, a pre
- test was done with 30 trainees and it helped the researcher in making some
alterations in the scales to make it more practicable and informative by deleting
and adding Questions. Necessary modifications were made in the interview
schedule for further study.

SOURCE OF DATA

The researcher used Interview Schedule to collect the data as a primary
source to study the various aspects of the research namely 1) Overall
Effectiveness of the training programme using Kirkpatrick model which has four
dimensions viz. reaction learning transfer and results 2) Measuring effectiveness
of training programme during pre and post training period 3) Measuring the
effectiveness of computer based tutorial. Relevant statistics pertaining to training
programme - number of trainees trained, and the details of the trainers were also
collected by the researcher as a secondary source.

TOOL FOR DATA COLLECTION

Primary Data were collected from 600 respondents through Interview
Schedule to measure the training as perceived by the respondents. The reliability
of the data is found to be .910 by using Cronbach’s Alpha reliability test. The
Secondary data were collected from journals, books and annual reports.
ANALYTICAL TOOLS

The collected data have been consolidated, tabulated and analyzed by using relevant statistical tools like, Chi-Square, Factor Analysis, Correlation, Regression, ANOVA and Structural Equation modeling (SEM). The SPSS 16 and AMOS 6 package were utilized for analyzing the data. The interpretation of the study is done by using tables, graphs and charts to give meaningful results.

LIMITATIONS OF THE STUDY

The limitations of the study are:

(a) This study is restricted to a few selected categories of staff only, hence the findings cannot be extrapolated for other categories of workers.

(b) This study is valid for this particular institute which has specialized training needs.

(c) The outcome of the result may vary in future due to change in technology and other variable environmental factors.

(d) This study is limited to the area of classroom activity / environment.

CHAPTERIZATION OF THE THESIS

1. Chapter - I Introduction and Design of the study.
2. Chapter - II Concept of training and review of literature.
3. Chapter - III Profile of the Organisation.
4. Chapter - IV Training effectiveness - Analysis I (Pre and Post) Analysis II (Statistical Analysis) Analysis III (CBT)
5. Chapter - V Findings, Suggestions, Implications and Conclusion