



# A Study On Training and Development at NTPC Ramagundam

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**Abstract** – This study examines the effectiveness of training and development practices at NTPC Ramagundam, one of India's leading thermal power stations. Training and development play a vital role in enhancing employee skills, improving productivity, and ensuring organizational efficiency, especially in technically complex and safety-critical industries like power generation. The primary objective of the study is to analyze the existing training programs, evaluate their effectiveness, and identify areas for improvement. The research is based on both primary and secondary data. Primary data was collected through structured questionnaires from trainers and trainees, while secondary data was gathered from journals, reports, and company records. Various analytical tools such as percentage analysis, charts, and graphical representations were used to interpret the data. The findings reveal that NTPC provides a wide range of training programs, including technical, safety, behavioural, and managerial training. These programs have significantly contributed to improving employee performance, job satisfaction, and operational efficiency. However, certain gaps were identified, such as the need for better training need analysis, improved evaluation methods, and increased use of modern training techniques.

**Keywords** - Training and Development, Employee Performance ,NTPC Ramagundam, Human Resource Management ,Training Effectiveness

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## I. INTRODUCTION

Training and development constitute fundamental components of human resource management, aimed at enhancing employee competence, efficiency, and overall organizational performance. In today's dynamic business environment—marked by rapid technological advancements, globalization, and intense competition—organizations must continuously upgrade the knowledge and skills of their workforce. Training is typically a short-term process focused on improving employees' current job performance, whereas development is a long-term initiative designed to prepare employees for future roles and responsibilities. Together, these functions contribute to building a skilled, adaptable, and high-performing workforce.

Within the power generation sector, the significance of training and development becomes even more pronounced due to the technical complexity, stringent safety requirements, and continuous operational demands. NTPC Limited, India's largest power generation company, places strong emphasis on employee training to maintain high standards of efficiency, safety, and reliability. The Ramagundam unit, one of NTPC's major thermal power stations, operates with advanced technologies and machinery, necessitating a highly skilled and continuously learning workforce.

Training programs at NTPC Ramagundam are systematically designed to address both organizational objectives and individual employee needs. These programs encompass technical training for plant operations, safety training to mitigate industrial risks, and behavioral training to enhance communication, teamwork, and leadership capabilities. Additionally, management development programs are conducted to prepare employees for higher-

level responsibilities. Training is delivered through diverse methods, including on-the-job and off-the-job training, workshops, seminars, simulations, and e-learning platforms, ensuring comprehensive skill development and knowledge enhancement

## II. REVIEW OF LITERATURE

Edwin B. Flippo (1984) defined training as the act of increasing the knowledge and skills of an employee for doing a particular job. According to him, training is a continuous process that helps in improving employee efficiency and productivity.

Gary Dessler (2008) emphasized that training plays a vital role in achieving organizational goals. He stated that effective training programs help employees to perform better, reduce errors, and improve quality of work.

Michael Armstrong (2006) highlighted that development is a long-term educational process aimed at preparing employees for future challenges. He also mentioned that organizations must focus on both training and development to ensure sustainable growth.

Peter Drucker (1999) pointed out that human resources are the most valuable assets of an organization, and investing in employee training leads to improved organizational performance and innovation.

Donald Kirkpatrick (1994) developed a four-level training evaluation model, which includes reaction, learning, behavior, and results. This model is widely used to measure the effectiveness of training programs.

Abraham Maslow (1943), through his hierarchy of needs theory, explained that employees are motivated to perform



better when their personal and professional needs are fulfilled. Training contributes to fulfilling these needs by enhancing skills and career growth.

### Need of the Study

The study of training and development is essential for understanding how organizations enhance employees' knowledge, skills, and abilities to achieve improved job performance. In today's highly competitive business environment, organizations require a well-trained workforce capable of adapting to technological advancements, evolving work practices, and changing organizational objectives. This study aims to evaluate the effectiveness of existing training programs and determine whether employees are acquiring the necessary competencies.

Furthermore, it helps identify performance gaps and provides insights into appropriate development initiatives that support employee career growth. Effective training and development programs contribute to increased efficiency, motivation, productivity, and job satisfaction among employees, ultimately leading to organizational success. Therefore, analyzing training and development is crucial for assessing its impact on both individual performance and overall organizational growth.

### Scope of the Study

- The study focuses on training and development practices at NTPC Ramagundam.
- It covers different types of training programs such as technical training, safety training, on-the-job training, and behavioral training.
- The study analyzes the effectiveness of training programs in improving employee skills and knowledge.
- It examines the impact of training on employee performance and productivity.
- The study evaluates employees' perceptions and satisfaction levels towards training programs.
- It focuses on the methods and techniques used for delivering training.
- The study assesses the role of training in improving safety standards and reducing operational errors.
- It identifies gaps and limitations in the existing training and development system.
- The study provides suggestions for improving training effectiveness.

### Objectives of the Study

The main objectives of our study are

- To study the Training and development function at NTPC
- To evaluate the effectiveness of training programs conducted
- To suggest measures for improvement

## III. RESEARCH METHODOLOGY

Research in common language refers to a search for knowledge. Research is a scientific and systematic search for pertinent information on a specific topic. In fact, research is an act of scientific investigation. Research methodology is a systematic way to solve research problems. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem. It is necessary for the researchers to know not only research methods/techniques but also the methodology. The scope of Research Methodology is wider than that of research methods.

The research process consists of a series of closely related activities. At times, the first step determines the nature of the last step to be undertaken. Why a research study has been undertaken, how the research problem has been defined, in what way and why the hypothesis has been formulated, what data has been collected and what particular methods have been adopted and a host of similar other questions are usually answered when we talk of research methodology concerning a research problem or study.

### Sample Size

The sample size chosen was Trainers: 10

- The 10 faculty members were chosen from the total faculty strength of 12. The respondents were chosen randomly.
- Trainees: 20
- The 20 respondents chosen were from different departments and different levels in the organization. They also were chosen randomly.

## IV. METHODS OF DATA COLLECTION

**Secondary Sources:** Secondary data was collected from various sources such as:

- Business magazines
- Journals Textbooks
- Internet

### Company Bulletin

The details of these sources are mentioned in the bibliography.

**Primary Data:** Primary data was collected through a structured, non-disguised questionnaire. Two questionnaires were designed: one for the trainers and the other for the trainees.

### Statistical Methods Used for Analysis Of Data

The various methods used for the analysis of the data collected were:

- Tally method
- Methods of Moving Averages



- Bar graphs and Pie charts

**Limitations of the Study**

- The study is limited only to the NTPC Ramagundam unit and does not cover other units of the organization.
- The sample size of respondents is limited, which may not represent the views of all employees.
- The study is based on primary data collected through questionnaires, and responses may be biased or subjective.
- Time constraints restricted the depth and extent of the research.
- Some employees were not willing to share complete or accurate information.
- The study relies partly on secondary data, which may not be fully updated or accurate.

**V. DATA ANALYSIS AND INTERPRETATION**

**1. Objectives in Attending a Training Program**

Majority of the respondents had gaining knowledge as the main objective in attending a training program.

**ACHIEVEMENT OF TRAINING OBJECTIVES**



**2. Ways in Which the Trainees Would Like to be Involved in Improving/Planning the Training Program in Future**

R ↓	Individual views	Commn. meeting	Survey	Suggestion box	F/b on PA
1		✓	✓		
2	✓				
3					✓
4	✓	✓			
5	✓	✓	✓		
6	✓	✓	✓	✓	✓
7	✓		✓		
8			✓		
9			✓		
10	✓				
11	✓				

12	✓				
13					✓
14			✓		
15					✓
16			✓		
17	✓		✓	✓	
18		✓	✓		
19				✓	
20		✓			
Total	9	6	10	3	4
Response s					
Rankings	II	III	I	V	IV

**Respondent**

Depending upon the number of responses obtained by each parameter, we will obtain a final ranking for the various parameters. From the table, we see that conducting a survey of the participants for planning a training program has got the most responses. Hence, it has been ranked first. The other rankings have obtained in a similar manner.

**3. Elements That Make A Training Program Successful**

The table from the earlier chapter is reproduced here for convenience.

Ranks	1	2	3	4	5	6	7	Final Ranking
Clear objectives								1
Good faculty								2
Right training method								3
Physical arrangement								5
Duration of training program								6
Contents of TP								4
Rewards/incentives after the TP								7





- Gary Dessler, Human Resource Management, Pearson Education, New Delhi.
- Michael Armstrong, Armstrong's Handbook of Human Resource Management Practice, Kogan Page Publications.
- C. B. Gupta, Human Resource Management, Sultan Chand & Sons, New Delhi.
- P. Subba Rao, Essentials of Human Resource Management and Industrial Relations, Himalaya Publishing House, Mumbai.
- V. S. P. Rao, Human Resource Management: Text and Cases, Excel Books, New Delhi.

## **2. Journals and Articles**

- Articles on Training and Development published in the Indian Journal of Human Resource Management.
- Research papers on employee training and performance published in the International Journal of Human Resource Studies.
- Articles related to Human Resource Development from the HRM Review Journal.
- Training effectiveness studies published in the Journal of Management Research.