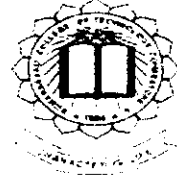


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P. 2765



**A STUDY ON EFFECTIVENESS OF TRAINING
PROGRAMME OFFERED IN SALEM STEEL PLANT**

**A PROJECT REPORT
submitted by**

**G.P.KUNTHAVAI
Reg. No. 0720400017**



**In partial fulfillment of the requirements
for the award of the degree**

of

MASTER OF BUSINESS ADMINISTRATION

April, 2009

**KCT Business School
Department of Management Studies
Kumaraguru College of Technology
(An autonomous institution affiliated to Anna University, Coimbatore)
Coimbatore-641 006**

Certificate



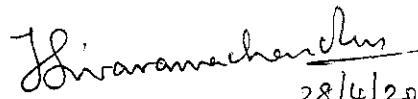
स्टील अथॉरिटी ऑफ इण्डिया लिमिटेड
STEEL AUTHORITY OF INDIA LIMITED
सेलम इस्पात संयंत्र
SALEM STEEL PLANT

Ref No TR-15(6)/1254

April 28, 2009

CERTIFICATE

Certified that
Miss G.P. Kunthavai
Final Year MBA student of
Kumaraguru College of Technology, Coimbatore
has done a Project on
**“A STUDY ON EFFECTIVENESS OF TRAINING PROGRAMME
OFFERED IN SALEM STEEL PLANT”**
in Human Resource Development Department
of Salem Steel Plant
from 16/12/2008 to 09/02/2009

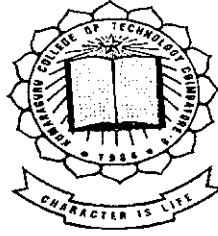

28/4/2009.

T Sivaramachandran
Deputy Manager(HRD)

Product Mix : Cold rolled stainless steel coils / sheets, hot rolled stainless steel and carbon steel coils / sheets / plates, stainless steel coinage blanks and utility circles.
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हर किसी की जिन्दगी से जुड़ा हुआ है सेल

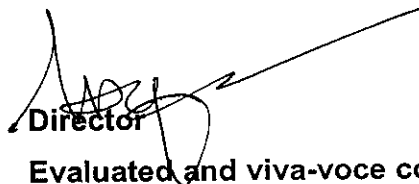
There's a little bit of SAIL in everybody's life



DEPARTMENT OF MANAGEMENT STUDIES
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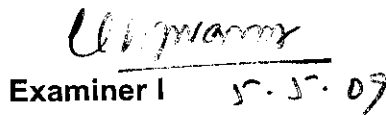
BONAFIDE CERTIFICATE

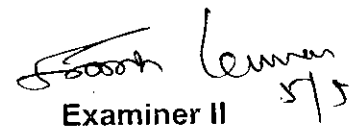
Certified that this project titled "A STUDY ON EFFECTIVENESS OF TRAINING PROGRAMME OFFERED IN SALEM STEEL PLANT" is the bonafide work of G.P.Kunthavai who carried out this project under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other project report or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.


Director


Faculty Guide

Evaluated and viva-voce conducted on5-5-09.....


Examiner I 5.5.09


Examiner II 5/5

DECLARATION

I hereby declare that the project report entitled as **“A STUDY ON EFFECTIVENESS OF TRAINING PROGRAMME OFFERED IN SALEM STEEL PLANT”** submitted for the **MASTER OF BUSINESS ADMINISTRATION** degree is my original work and this project has not formed the basis for the reward of any Degree, Fellowship or any other similar titles.

G. P. Kuntlavi

29.4.09

Acknowledgement

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Few people are as fortunate as I have been throughout my life. I have always benefited from many wonderful people around me, and the last four months of my main project I have been no exception. I have many people to be thankful to.

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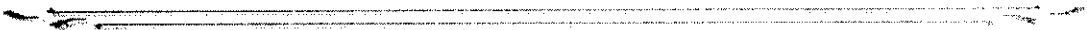
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Abstract



ABSTRACT

Human Resource Management is defined as the people who staff and manage organization. It comprises of the functions and principles that are applied to retaining, training, developing, and compensating the employees in organization.

The project titled "A STUDY ON THE EFFECTIVENESS OF TRAINING PROGRAMME" was done at SALEM STEEL PLANT, SALEM was done to know the employees training and development activities. The objective of training is to achieve a change in the behavior of those trained. In this study training effectiveness refers to the evaluation of training programme in the areas namely objectives, needs, session, programme infrastructure evaluation, practical applicability, training aids, general satisfaction of programme, knowledge and skills acquired through training . Training needs have been carefully assessed through detailed dialogue with potential trainees.

A successful training programme presumes that sufficient care has to be taken to discover areas in which it is needed most and to create the necessary environment for its conduct. To suggest suitable measures for improving the existing programme hundred respondents were identified from the universe by using simple random sampling method at SALEM STEEL PLANT . Test such as Chi square and Percentage Analysis were used for the analysis. On the whole, the study shows that effective material has to be provided during the training programme and before providing training to the employees their education and existing knowledge has to be considered and based on that training has to be given.

Introduction

CHAPTER 1

INTRODUCTION

Human Resource Management is defined as the people who staff and manage organization. It comprises of the functions and principles that are applied to retaining, training, developing, and compensating the employees in organization. Human Resource Management is defined as the set of activities, programs, and functions that are designed to maximize both organizational as well as employee effectiveness

Human resources are considered as one of the effective resource in the organization. All the organization takes much care on this aspect as they don't want to lose any skillful labour. It may be noted here that human resource should be utilized to the maximum possible extent, in order to achieve individual and organizational goals. So for this concern have to be shown to the workers.

So, organization is providing lots of facilities to create interest in the minds of the workers. All the organization gives plenty of facilities to the workers so that they are satisfied and retained in their job. So apart from salary, the workers also look for facilities to make their life easy.

1.1 BACK GROUND OF THE STUDY:

TRADITIONAL AND MODERN APPROACH OF TRAINING AND DEVLOPMENT

Traditional Approach – Most of the organizations before never used to believe in training. They were holding the traditional view that managers are born and not made. There were also some views that training is a very costly affair and not worth.

Organizations used to believe more in executive pinching. But now the scenario seems to be changing.

The modern approach of training and development is that Indian Organizations have realized the importance of corporate training. Training is now considered as more of retention tool than a cost. The training system in Indian Industry has been changed to create a smarter workforce and yield the best results.

Training is a learning experience in that it seeks a relatively permanent change in an individual that will improve the activity to perform on the job. It involves the changing of skills, knowledge, attitudes and behaviours. It may mean changing what employees know, how they work, their attitudes towards their work, or their interaction with their co-workers or supervisor.

Training increases the knowledge and skills of an employee for doing a particular job. The main output of training is learning. Training offers & inculcates new habits, refined skills & useful knowledge during the training that helps him improve performance. Training is a learning experience that is planned & carried out by the organization to enable more skilled task behaviour by the trainee. Training provides the ability to detect & correct error. Training provides skills & abilities that may lie called on the future to satisfy the organization's human resource needs.

Any training implemented in an organization effort must be cost effective. That is, the benefits gained by such programme must outweigh the costs associated with providing the learning experience. Only by analysing such programs can effectiveness be determined. It is not enough to merely assume that any training an organization offers is effective, develop substantive data to determine whether our training effort is achieving its goals- that is, if it's correcting the deficiencies in skills, knowledge, or attitudes that were assessed as needing attention. Training must be evaluated in terms of how much

the participation learned, how well they are using their new skills on the job (did their behaviour change?), & whether the training program achieved its desired results.

The Performance based evaluation measures are 1. Post – Training Performance Method: Evaluating training programs based on how well employed can perform their jobs after they have received the training. 2. Pre- Post- Training Performance Method: Evaluating training programs based the difference in performance before & after one receives training. 3. Pre-Post Training Performance with control group Method: Evaluating training by comparing pre- post training results with individuals who did not receive the training.

The need for Employee Training is mainly for improving the quality of work of employees. There are some other factors, giving rise to the need for training. They are Effective performance, Production of quality goods & services, Fast changing technique, to keep pace with the development of technology and Change of profession.

The importance of Training are the corner – stone of sound management, for its makes employees more effective & productive and there is an ever present need for training men so that new & changed techniques may be taken advantage & improvements effected in the old methods, which are usefully inefficient. Training is a practical & vital necessity because it enables employees to develop & rise within the organization & increase their market value, earning power & job security. Training is a widely accepted problem solving device.

TRAINING AND DEVELOPMENT OBJECTIVE :

The principal objective of training and development division is to make sure the availability of a skilled and willing workforce to an organization. In addition to that, there are four other objectives: Individual, Organizational, Functional, and Societal.

Individual Objectives – help employees in achieving their personal goals, which in turn, enhances the individual contribution to an organization.

Organizational Objectives – assist the organization with its primary objective by bringing individual effectiveness.

Functional Objectives – maintain the department's contribution at a level suitable to the organization's needs.

Societal Objectives – ensure that an organization is ethically and socially responsible to the needs and challenges of the society.

1.2 STEEL INDUSTRY:

steel industry - the industry that makes steel and steel products.

Steel industry, the business of processing iron ore into steel, which in its simplest form is an iron-carbon alloy, and in some cases, turning that metal into partially finished products or recycling scrap metal into steel. The steel industry grew out of the need for stronger and more easily produced metals. Technological advances in steelmaking during the last half of the 19th cent. played a key role in creating modern economies dependent on rails, automobiles, girders, bridges, and a variety of other steel products.

Olden Days Method Practical in Steel Industry :

The Expansion of Iron Production in the Nineteenth Century

The widespread adoption of puddling as a technique to make iron also contributed to growth in production. In the early days of American ironmaking, craftsmen used a method called fining to produce iron. This meant that the mixture of iron and slag expelled from a blast furnace was

separated out by hammering it. Puddling involved adding iron oxide to the blast furnace charge because the chemical reaction made it easier to separate impurities from the iron. Puddlers did the separating by stirring the melted product with a long iron rod. The slag that rose was poured off the top and the iron at the bottom was shaped into balls. The balls were squeezed into iron bars that were worked into the mill's final product (such as rails or rods) by other workers. Puddling required many judgment calls based on experience. Therefore, it could take up to two years of training to become a skilled puddler. Many puddlers in the mid-nineteenth century were successful enough to later move into the ranks of owners.

Both fining and puddling were pioneered in Great Britain and adopted by American producers in subsequent decades. As they gained more experience, American iron-masters developed their own variations of these English techniques, depending on local resources like the quality of their iron and the efficiency of their fuel. A means of automating iron production was not developed until the 1930s.

In the nineteenth century, the American iron market produced a wide variety of products. Stoves, gun parts, cannons, and machinery were among key early uses for iron. Iron also played a crucial role in the development of railroads. Once again, the English pioneered techniques for making high-quality iron rails. In fact, American railroads imported all their rails from British mills until 1844. In 1857, John Fritz's Cambria Iron Works in Johnstown, Pennsylvania, created a technique to automate partially the production of iron rails. The resulting increase in productivity made the railroad boom of the next two decades possible.

Steel Manufacturing: Henry Bessemer and Andrew Carnegie

Before the Civil War, American manufacturers made only small quantities of steel. Because they were unable to master the demanding requirements to create steel through puddling,

imports from England's Sheffield mills dominated the American market. That all changed with the application of the Bessemer process. Henry Bessemer was a British inventor who created a way to refine iron into steel using air alone in 1855. His machine, the Bessemer converter, blew air over molten iron from a blast furnace so as to remove impurities and create a substance of a uniform consistency. The American engineer Alexander Holley brought Bessemer technology to America in 1864, but did not perfect the Bessemer design until he created his first plant from the ground up as opposed to adapting an existing facility. This was the Edgar Thomson Works in Braddock, Pennsylvania. The mill, which opened in 1875, was the model for all subsequent Bessemer facilities.

Holley built the Edgar Thomson Works for Andrew Carnegie, who used it mostly to produce steel rails for the Pennsylvania Railroad. Carnegie's first experience in industry came when he invested in the iron business during the 1860s. His genius was to champion technological innovations like the Bessemer converter and the Jones mixer, which sped the delivery of iron from the blast furnace to the converter, in order to cut production costs and undersell his competitors. Carnegie also had a genius for picking good associates. For example, William R. Jones, the inventor of the Jones mixer, served as superintendent of the Edgar Thomson Works and was just one of many men who shared in Carnegie's business success.

Another Carnegie protégé, Charles Schwab, would go on to form Bethlehem Steel in 1904.

Carnegie's devotion to vertical integration also contributed to his success. His firm eventually controlled supplies of everything needed to make steel: iron ore and coal deposits; railroads to transport everything; and marketing networks for the finished product. By the 1890s, Carnegie Steel made more steel than the entire country of Great Britain. In 1900, its annual profit was \$40 million.

Between the mid-1870s and the early 1890s steel replaced iron in more and more markets that iron had once dominated, such as rails and nails. The key reason for this was increased steel production. Accelerated by the innovations in Carnegie's mills, Bessemer steelmaking allowed firms to make thousands of more tons of metal per year than when iron had dominated the market. And because the Bessemer method required less skill than ironmaking, labor costs dropped too. As steel prices dropped dramatically, consumers increasingly chose the cheaper, harder, more durable metal.

As this trend accelerated, puddlers began to find that their skills were no longer needed. Steelmakers came to depend on immigrant labor, particularly workers from southern and eastern Europe. In the Homestead lockout of 1892, the only major union in the iron and steel industry, the Amalgamated Association of Iron and Steel Workers, made one last violent stand to prevent managers from driving the union out of the industry at Carnegie Steel's Homestead Works. Its effort failed. From 1892 to 1937, American steelmakers operated in an almost entirely union-free environment.

U.S STEEL INDUSTRY :

The steel industry provides about 5% of the total U.S. manufacturing GDP. The steel industry has undergone a major transformation since its recession of the late 1980s, investing in new process and product technologies and closing older mills. Today's steel industry is technologically sophisticated, employing over 189,000 American production workers in jobs paying about 55% above the average for all U.S. manufacturing. [DOC 2001]

The United States is the largest steel producer in the world, producing 112 million tons of raw steel in 2000, 12% of total world production. [AISI 2001] The industry has recently experienced

large levels of imports because of world steel overcapacity resulting from economic downturns in Asia and the CIS. The industry's return on sales for 2000 was -2.8%. [AISI 2001]

The steel industry spends hundreds of millions of dollars annually on R&D. Over the last 25 years, the industry has invested nearly \$8 billion in environmental control equipment. [AISI 2001]

The Steel Industry and Organized Labor :

Throughout the early twentieth century, steel executives were determined to prevent the return of organized labor to their industry. Managers fought off national organizing campaigns in 1901, 1919, and 1933 through a combination of the carrot and the stick. They used hard-nosed tactics like spies, blacklists, and the fomenting of racial strife along with softer policies like safety improvements and employee stock ownership plans. However, when the Committee on Industrial Organization (later the Congress of Industrial Organizations, or CIO) started the Steelworkers Organizing Committee (SWOC) in 1936, it used the impetus of the National Labor Relations Act (1935) to gain a foothold in U.S. Steel. Rather than risk a costly strike at a time when production was just beginning to recover from the Depression, U.S. Steel recognized the SWOC without a strike in March 1937.

Although many other steel producers followed the steel corporation's lead, its largest competitors did not. Firms like Bethlehem Steel, Youngstown Sheet and Tube, and Republic Steel were part of a group known as Little Steel, not because they were small, but because they were smaller than U.S. Steel. Rather than recognize the union on terms similar to those agreed to by their larger competitor, these firms started the Little Steel Strike of 1937. Despite violence, particularly the so-called Memorial Day Massacre in Chicago, the Little Steel firms won the strike relatively easily. However, government pressure during World War II to keep

production moving forced each of these firms to recognize the SWOC's successor organization, the United Steel Workers of America (USWA), over the course of that conflict.

INDIA'S STEEL INDUSTRY :

The steel industry continues to be of major interest to Indiana, given its long history as one of the primary sources of employment and income in the state. But steel has long been a declining source of employment and income, both for northwest Indiana and for the nation. Nonetheless, given its continued real importance as an employer and its symbolic importance as the source of much of northwest Indiana's growth, understanding the current state of the steel industry has value.

Steel industry reforms – particularly in 1991 and 1992 – have led to strong and sustainable growth in india's steel industry.

Since its independence, India has experienced steady growth in the steel industry, thanks in part to the successive governments that have supported the industry and pushed for its robust development.

Further illustrating this plan is the fact that a number of steel plants were established in India, with technological assistance and investments by foreign countries. In 1991, a substantial number of economic reforms were introduced by the Indian government. These reforms boosted the development process of a number of industries – the steel industry in India in particular – which has subsequently developed quite rapidly.

The 1991 reforms allowed for no licenses to be required for capacity creation, except for some locations. Also, once India's steel industry was moved from the listing of the industries that were

reserved exclusively for the public sector, huge foreign investments were made in this industry.

Yet another reform for India's steel industry came in 1992, when every type of control over the pricing and distribution system was removed, making the modern Indian Steel Industry extremely efficient, as well as competitive.

Additionally, a number of other government measures have stimulated the growth of the steel industry, coming in the form of an unrestricted external trade, low import duties, and an easy tax structure.

India continually posts phenomenal growth records in steel production. In 1992, India produced 14.33 million tones of finished carbon steels and 1.59 million tones of pig iron. Furthermore, the steel production capacity of the country has increased rapidly since 1991 – in 2008, India produced nearly 46.575 million tones of finished steels and 4.393 million tones of pig iron. Both primary and secondary producers contributed their share to this phenomenal development, while these increases have pushed up the demand for finished steel at a very stable.

In 1992, the total consumption of finished steel was 14.84 million tones. In 2008, the total amount of domestic steel consumption was 43.925 million tones. With the increased demand in the national market, a huge part of the international market is also served by this industry. Today, India is in seventh position among all the crude steel producing countries.

The following are the premier steel plants operating in India:

Salem Steel Plant at Tamil Nadu

Bhilai Steel Plant at Chattisgarh

Durgapur Steel Plant at West Bengal

Alloy Steel Plants at West Bengal

Visvesvaraya Iron and Steel Plant in Kamataka

Rourkela Steel Plant at Orissa

Bokaro Steel Plant at Jharkhand



SAIL sales up on rural demand :

According to Mr SK Roongta chairman of Steel Authority of India, SAIL recorded a rise in volume sales of more than 10% last quarter as demand grew in the nation's villages and small towns.

Mr Roongta at an industry conference in New Delhi said today that the company expects to sustain demand by expanding its rural distribution network.

According to the commerce ministry, Indian demand for steel is beating a global slump after prices more than halved since June and rural incomes grew as the government raised the price it paid farmers for wheat and cotton. India government approved INR 700 billion (USD 14 billion) of projects since August to build roads, ports and highways.

Mr Pramod Rastogi steel secretary at the conference said that steel consumption in the country rose by 3.8% and production increased 1.2% in the last quarter. He said that rural housing and infrastructure will continue to boost demand.

1.3 COMPANY PROFILE OF SALEM STEEL PLANT ., SALEM.

AN INTRODUCTION TO SAIL ANDS ITS UNITS :

INTRODUCTION :

SAIL – Steel Authority of India Limited, is the largest steel producers with a turnover of 45,556 Cr. During 2007-2008. it operates and holds five integrated steel plants at Bhilai, Durgapur, Bokaro, Rourkela and Burnpur and three speciality steel plants at Salem, Durgapur and Bhadravati. A subsidiary at Chandrapur produces ferro alloys. SAIL produced 14.6MT of Hot metal, 13.5MT of crude sttel and 12.6MT of saleable steel in 2006-07. SAIL planned to produce 25MT of crude steel and 23MT of saleable steel by the year 2010. The company is amongst India's leading producers of iron ore requirement. SAIL's countrywide marketing network comprises 37 Branch Sales Offices, 55 stockyards and over 1200 authorised dealers. This helps in marketing the products in almost all the districts of the country.

1.3.1 SAIL – the integrated company comprises the following units/subsidiaries :

UNITS

01. Bhilai Steel Plant, Bhilai, Chattisgarh
02. Bokaro Steel Plant, bokaro, Jharkand
03. Durgapur Steel Plant, Durgapur, West Bengal
04. Rourkela Steel Plant, Rourkela, Orissa
05. IISCO Steel plant, Burnpur, West Bengal

06. Alloy Steels Plant, Durgapur, West Bengal
07. Salem Steel Plant, Salem, Tamilnadu
08. Visveswarayya Iron and Steel Plant, Bhadravati, Karnataka
09. Central marketing Organisation, Kolkatta, West Bengal
10. Research and Development Centre for Iron and Steel, Ranchi
11. Management Training Institute, Ranchi
12. Centre for Engineering and Technology, Ranchi
13. SAIL, Safety Organisation, Ranchi
14. Raw Materials Division, New Delhi
15. SAIL Consultancy Division, New Delhi
16. Environment Management Division, Kolkatta
17. Growth Division, Kolkatta

SUBSIDIARY :

Maharashtra Elektros melt Ltd, Chandrapur, Maharashtra

MAJOR UNITS :

ROURKELA STEEL PLANT

To Rourkela goes the credit of having been the first steel plant in the public sector to come into the production. The first coke oven battery was lighted on Dcember 3, 1958 and the first blast furnance was commissioned on February 3, 1959. the first heat of LD oxygen blown steel was made on December 27, 1959. The Hot Strip Mill was commissioned on February 28,1961.

Rourkela Steel Plant has the unique distinction of being the trend setter with regard to the technology of iron and steel in the country. It was here that LD oxygen steel making was adopted at a time when even leading steel producers of the world had not opted for it. A special feature of RSP is its fertilizer plant, which was specially conceived to utilize the nitrogen available from the air separation units of oxygen plant and hydrogen to be separated from the coke oven gas. It was the first integrated steel plant in India designed to produce only flat products. With the recent modernization activities the plant's production capacity has been enhanced to 3.8 MT of Crude Steel.

BHILAI STEEL PLANT

The plant began its operation on January 31, 1959. the first blast furnace was inaugurated on February 4, 1959 and production of steel started on October 12, 1959 with the commissioning of open hearth furnace No.1. The million ton plant was completed in 1961. it has been expanded to 2.5 million tones of ingot steel during the sixties. A significant feature was the installation of 500 ton capacity open hearth furnaces. A high speed multistrand wire rod mill was commissioned in September 1987.

The plant has already been expanded to a capacity of 4.0 million tones of ingot steel. The new stream has the BOF process of steel making, continuous casting and a 3600 mm wide Plate Mill, which is one of the biggest of its kind in Asia. Bhilai Steel Plant won the Prime Minister's Trophy for "The Best Integrated Steel Plant" in the country thrice in your years since inception of the award.

DURGAPUR STEEL PLANT

Erected in West Bengal in the late fifties, the plant started with a capacity of one million tonne of ingot steel per annum. Production of iron began on December 29, 1959 and the first steel ingot was made on April 24, 1960. It was subsequently expanded to 1.6 million tonne capacity in sixties. The plant is a major producer of railway materials like wheels and axles, fish plates and sleepers. It also produces light and medium sections, merchant sections and skelp. The production capacity of Durgapur Steel Plant has further been expanded to 1.876 MT Crude Steel.

BOKARO STEEL PLANT

Bokaro Steel Limited (BSL) was formed on January 29, 1964. the construction started on april 6, 1968. The first coke oven battery was commissioned on September 9, 1972, the first blast furnace on October 3, 197 and the first converter was commissioned on January 3, 1974. The plant was envisaged with an initial capacity of 1.7 million tonnes of ingot steel. After modernization, liquid steel output is rated at 4.5 MT. the plant is designed to produce hot and cold rolled sheets, coils and slit coils in many specifications and sizes.

IISCO STEEL PLANT

IISCO is the second oldest integrated steel plant in India, next to TISCO. The plant was taken over by the Government of India on July 14, 1972 and it merged with SAIL with effect from 16th February 2006 and renamed as **IISCO Steel Plant (ISP)**. The plant has a capacity of producing 0.4 million tonne of ingot steel per annum. Steel is made by

Duplex process using acid Bessemer converters and basic open hearth furnaces. It has a wide range of products including structurals, special sections, rails, bars, hot rolled and galvanized sheets. Spun iron pipes are produced in its units at Kulti and Ujjain.

ALLOY STEELS PLANT

Alloy Steels Plant was installed at Durgapur with 1,00,000 tonnes of ingot steel capacity in 1960, with Japanese assistance. This is the largest alloy steel producing unit in the country. The plant was subsequently expanded to a capacity of 1,60,000 tonnes. The plant is being further expanded under the Stage-II expansion programme to augment the crude steel capacity to 2,46,000 tonnes per year. The plant has one slab-cum-twin bloom continuous casting machine, the only of its kind in India.

1.3.2 SALEM STEEL PLANT

A Steel Plant in Salem was a long cherished dream. Government of India decided in May 15, 1972 to set up an integrated special steels plant at Salem in the State of Tamil Nadu for the production of sheets and strips of electrical, stainless and other special and mild steels on the basis of sound techno-economic considerations.

The construction of the plant was inaugurated in June 13, 1972 by the late Shri Mohan Kumaramangalam, the then Minister of Steel and mines. Thus a dream of having a Steel Plant in Salem had started taking a shape in the foot – hills of Kanjamalai. The company “Salem Steel Limited” was registered on October 25, 1972. It was a Government of India undertaking and subsidiary of Steel Authority of India Limited (SAIL). Shri V Subramanian was the Managing Director of the Salem Steel Limited.

The plant was designed to roll out 32,000 tonnes of cold rolled stainless steel strips and wide sheets per annum in the first phase. Situated in Tamil Nadu, the plant brings to India the latest sophistication in cold rolling technology. In the second phase, the production capacity was increased to 70,000 tonnes per annum by installing the Second sendzimir Mill. Stainless Steel from Salem finds application in many industries ---nuclear, petroleum, chemicals, fertilizer, food processing, pharmaceuticals, dairy, household appliances and cutlery. The plant is actively pursuing development activities to promote use of stainless steel in new areas such as coinage, railway coaches, building, furniture, automobiles, etc. In addition to the Cold Rolling mills, Blanking line was commissioned during the year 993 with a capacity of producing 3000 T coin blanks per annum and the provision is there to make utility banks.

As one step ahead in reaching the goal of backward integration, Hot Rolling Steckel Mill was commissioned during November 3, 1995 with an installed capacity of around 2 lakhs Tonnes with an approximate investment of Rs.839 crores. This mill is capable of rolling both stainless and non-stainless steels.

PRODUCT – MIX, PROCESS, EQUIPMENT AND INFRASTRUCTURE OF HOT ROLLING MILL

Hot Rolling Steckel Mill :

The Hot Rolling Mill Complex consists of a Slab Yard, a Walking Bearn Reheating Furnace, a Roughing Mill, a Single Stand 4 High Reversible Steckel Mill, a Down Coiler and a coil Yard for making, cooling and dispatch. The major equipments excepting for

the Walking Beam Reheating Furnace have been supplied by M/s SCHLOEMANN-SIEMAG (SMS) of Germany.

Product mix :

With the commissioning of Hot Rolling Mill, Salem Steel Plant has also entered the market of carbon steels. The Hot Rolling Mill is capable of producing both stainless as well as non – stainless steels. In case of carbon steels, the minimum thickness which can be achieved is 1.6 mm and in the case of stainless steel the minimum thickness achieved would be 2.0 mm. the mill has the capacity to roll upto 1300 mm width.

Process :

Slabs of carbon steel (or) stainless steel are received through wagons from Alloy Steels Plant, Durgapur or Bhilai Steel Plant, or from abroad and stored in slab storage yard. As per the schedule the slabs are charged into the walking Beam Furnace and annealed to a suitable temperature. Later these slabs are discharged from furnace and sent to Roughing Mill. In Roughing Mill the slabs are rolled to a thickness of 25mm transferbar and sent to Steckel Mill for further reduction. Having achieved the required thickness, the material is cooled with the system of Laminar Cooling in case of carbon steel and coiled in Down Coiler. In case of stainless steel the material is directly coiled in Down Coiler. After natural cooling , HR coils are taken to CRM or customers through trucks.

PRODUCT - MIX, PROCESS, EQUIPMENT AND INFRASTRUCTURE OF COLD ROLLING MILL

In the Phase I and II, hot bands (hot rolled stainless steel coils) of 4 mm to 6 mm thickness as input material were imported to produce cold rolled stainless steel coils and sheets. With the commissioning of the Hot Rolling Mill. This route has been redundant.

As part of reverse integration, the Hot Rolling Steckel Mill supplies the required Hot Rolled Coils (HRC) input to CRM and also produces HRC of non – stainless steels (carbon steel).

The product – mix of the plant is so designed as to meet the growing needs of sophisticated industries like petroleum, chemicals, pharmaceuticals, fertilizers, paper and pulp making, textiles and dairy equipments, besides Railway requirements, electrical appliances, domestic utensils and decorative materials.

Salem Steel Plant is producing cold rolled stainless steel coils and sheets of thickness ranging from 0.3mm to 6.00 mm with a width upto 1250 mm in austenitic, ferritic and martensitic grades.

Apart from cold rolled (CR) products, hot rolled (HR) products of stainless steel of different thickness and HR products of non – stainless steel (carbon steel) are also produced.

Major equipment and other facilities :

The major production facilities include

- | | |
|--|--|
| 1. Coil Build – up Line | 9. Slitting Line |
| 2. Bell Annealing Furnaces – 3 nos | 10. Coil Inspection and
Dividing Line |
| 3. Annealing and Pickling Lines – 2 nos | 11. Cut to Length Line |
| 4. 20 High Sendzimir Cold Rolling Mill – 2 nos | 12. Blanking Line |
| 5. Roll Grinding Shop | 13. Sheet Grinding and Polishing
Unit |
| 6. Strip Grinding Line | 14. Stretcher Leveller |
| 7. Skin Pass Mill | 15. Resquaring shear |
| 8. Shearing Line | 16. Utility Services |

Product – Mix :

Salem Steel Plant specializes in the production of wide cold rolled stainless steel sheets and coils. During the first stage, the Plant had a capacity to produce 32,000 tonnes of stainless steel sheets and coils with thicknesses ranging from 0.3 mm to 6.00 mm and widths varying from 600 mm to 1250 mm. for sheets the length varies from 500 to 4000 mm. for slit coils, the minimum width can be as low as 50 mm.

In addition to the common 2D and 2B Finishes, a wide range of surface finishes, mirror and hair-line finishes are produced in a variety of grades, conforming to international standards.

Process :

Salem Steel Plant employs the latest technology in cold rolling and incorporates the most modern equipment, supplied by the leading machinery manufacturer all over the world.

The raw material for Salem Steel Plant is hot rolled stainless steel coils, called hot bands. These coils are processed in Coil Build – up Line (CBL). Coils are softened and descaled in Annealing and Pickling Lines (APL). From here they are sent for cold rolling in the Sendzimir Mill (Z - Mill) to the desired final thickness.

The cold rolled coils are again softened and descaled to obtain the optimum finish and mechanical properties. These are passed through the Skin Pass Mill (SPM) to give a bright finish and necessary flatness. The coils are ultimately either slit or sheared into finished products in the form of slit / divided coils or cut – lengths. The special surface finishes are obtained in sheet form in the Sheet Grinding and in the coil form in the strip Grinding Line (SGL).

With the special feature of computerized gauge control in the Sendzimir mill, it is possible to obtain very close gauge tolerances. The latest Ruthner neutral electrolytic pickling process in the Annealing and Pickling Lines ensures excellent surface finish and minimum environmental pollution.

Equipment Suppliers and other agencies of CRM :

The Salem Steel Plant bears contribution by way of equipment suppliers from 13 major foreign suppliers in eight countries, twelve public sector undertaking and several private sector industries in India. In value, only 38 percent of the equipment have been paid in foreign exchange, with 20 percent supplied by public sector undertakings in India and 42 percent supplied by Indian private sector. The erection of the equipment is totally Indian, the Hindustan Steel Works Construction Limited providing civil and structural requirements and Tamilnadu Water supply and Drainage (TWAD) Board providing water supply and sewage facilities. One of the biggest Liquefied Petroleum Gas storage facilities in the country is at Salem Steel Plant, put by Indian agencies.

The production know-how for cold rolling stainless steel and finishing was obtained from M/s Ugine of France.

The Blanking Line, supplied by M/s Schuler, Germany, uses the state of the art technology to produce high quality stainless steel blanks for coins and utility purposes. It consists of a 160 Tonnes capacity press with scope for 60 to 630 strokes per minute. The line has facility for deburring, degreasing, rimming, annealing and pickling, counting and packing facility. The press supplies 25 paise, 50 paise and Re 1 coin blanks to the Government of India Mint.

1.3.3 Distinctions :

Salem Steel Plant was commissioned on schedule date i.e. September 13, 1981 by Shri AS Gill, Secretary, Department of Steel, Ministry of Steel and Mine, Government of India and the production was commenced. The plant was formally inaugurated on March 13,

1982 by Shri Narayan Datt Tiwari, the then Hon'ble Minister for industry, Steel and Mines, Government of India.

Salem Steel Plant has the distinction of being one among the very few Projects among this magnitude in recent years which were completed right on schedule.

The Plant's production has exceeded the rated capacity.

The products marketed by Salem Steel Plant have won customer appreciation for their quality and mechanical characteristics.

The Plant has had the unique distinction of bagging international awards for its safety record. The British Council conferred on Salem Steel Plant on the "Sword of Honour" for the years 1984 and 1986 in recognition of the safety standards and performance. Apart from this, a number of other State and National awards have been received.

Salem Steel Plant continue to excel both in Suggestion Scheme and in Quality Circles. Six of our QC Teams have participated in National Convention on Quality Circles at Kolkatta in Dec 2007. out of the six teams participated from SSP, 4 teams have won par Excellence Award and 2 teams won Excellence Award. SSP bagged the 3rd prize at the INSAAN suggestion competition held in Kodaikanal. SSp also bagged "Ispat Suraksha Puraskar" award received in Nov 2007 for "No fatal Accident". SSP also won the "National Sustainability Award" during Nov 2007 for best among Secondary Steel Plant for the 11th Time.

1.3.4 Expansion Project :

Towards the goal of backward integration, a Steel Melting shop (SMS) with an annual capacity of 1,80,000 T of Slabs and a Cold Rolling Mill (CRM) increasing the present 65,000 T to 1,46,000 T of Crss (Cold Rolled Stainless Steel) is underway with an estimated cost of 1902Cr. The Project is expected to be commissioned by March 2010. The production capacity of hot Rolled Coils will be 3,70,000 T from the present capacity of 1,86,000 T.

CHAPTER 2

MAIN THEME OF THE PROJECT

2.1 OBJECTIVE OF THE STUDY:

Primary Objectives

- ❖ To analyse the effectiveness of the existing training programme in the company.
- ❖ To find out the satisfaction level of the trainees about their trainers, training process & training facilities given by the company.
- ❖ To recommend the management for corrective action in the problematic areas.

Secondary Objectives

- ❖ To find out the performance level in the Job due to the impact of training.

2.2 SCOPE AND LIMITATIONS OF THE STUDY

2.2.1 SCOPE OF THE STUDY

Training programming is the corner stone of the management. It makes employees more effective and productive; it is actively and intimately connected with all the technical and non-technical activities. It is an integral part of the whole management programme with all its activities functionally inter-related.

The main aim of the study is to find out the effectiveness of training programmes at Salem Steel Plant, Salem focuses on finding out the efficiency of employees after the

programme & also to find out the satisfaction level of the trainees towards the programme, trainer, contents & organization.

2.2.2 LIMITATIONS OF THE STUDY:

1. There may be bias on the part of employees while answering to the questions.
2. The study is limited to the employees of Salem Steel Plant, Salem and as such the findings are not applicable to any other industry.
3. Some of the respondents were afraid to give true information in some cases.

2.3 METHODOLOGY

TYPE OF STUDY:

The research design adopted for this study is Descriptive Research. The descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group. The studies concerned with specific predictions, with narration of facts & characteristics concerning individual, group or situation are all examples of descriptive research studies.

DATA COLLECTION METHOD:

The data has been collected through specially designed questionnaire. The questions relating to personal profile of staffs, factors leading to satisfaction level of training based on the trainers performance, training process and finally analyse the effectiveness of training programme.

SAMPLING DESIGN:

To suggest suitable measures for improving the existing programme, hundred respondents were identified from the universe of 1000 employees by using simple random sampling method at Salem Steel Plant, Salem.

TOOLS OF ANALYSIS:

The data collected were carefully analysed and processed. Using SPSS, statistical tools like chi-square and percentage analysis were applied to interpret the data to draw meaningful interfaces.

Overview of SPSS:

SPSS provides a powerful statistical-analysis and data-management system in a graphical environment, using descriptive menus and simple dialog boxes to do most of the work for you. Most tasks can be accomplished simply by pointing and clicking the mouse.

In addition to the simple point-and-click interface for statistical analysis, SPSS provides:

Data Editor:

The Data Editor is a versatile spreadsheet-like system for defining, entering, editing, and displaying data.

Viewer:

The Viewer makes it easy to browse your results, selectively show and hide output, change the display order results, and move presentation-quality tables and charts to and from other applications.

Multidimensional pivot tables:

Your results come alive with multidimensional pivot tables. Explore your tables by rearranging rows, columns, and layers. Uncover important findings that can get lost in standard reports. Compare groups easily by splitting your table so that only one group is displayed at a time.

High-resolution graphics:

High-resolution, full-colour pie charts, bar charts, histograms, scatter plots, 3-D graphics, and more are included as standard features.

Database access:

Retrieve information from databases by using the Database Wizard instead of complicated SQL queries.

Data transformations:

Transformation features help get your data ready for analysis. You can easily subset data; combine categories; add, aggregate, merge, split, and transpose files; and more.

Online Help:

Detailed tutorials provide a comprehensive overview; context-sensitive Help topics in dialog boxes guide you through specific tasks; pop-up definitions in pivot table results explain statistical terms; the Statistics Coach helps you find the procedures that you need; Case Studies provide hands-on examples of how to use statistical procedures and interpret the results.

2.4 REVIEW OF LITERATURE

Garg Anupama¹ in her paper “Effectiveness of training health professionals in literature search skills using electronic health databases--a critical appraisal”, reveals that the objective was to assess the effect on health professionals' skills of one to eight hours literature search and retrieval training from electronic health databases Cochran library (2002; Issue 3), MEDLINE (1977-2002/5), EMBASE (1980-2002/7); CINAHL (1982-2002/5); ASSIA (1982-2002/7), BNI (1994-2002/5), ERIC (1985-2002/6); LISA (1969--current), NRR (2002, Issue 2), the world-wide-web and references. The selection criteria consisted of randomised controlled trials, controlled before and after, and controlled cohort studies in comparison with no training. The intervention had to be one to eight hours training in literature search and retrieval skills for health professionals. The outcome was the effect on health professionals' literature search and retrieval skill levels measured through reliable instruments. For data collection and analysis, one reviewer extracted data and assessed the quality of the studies and the second reviewer checked it. The results indicate that there is some evidence of positive impact on health professionals' skill levels in literature searching and they find the training useful. In conclusion, the size of the positive effect is debatable as only three small and methodologically weak studies met the inclusion criteria and out of those only two showed the positive effect had made the survey based on the benefits or working as an academic librarian. According to the survey conducted by the “Library Journal” .While academic librarians are underpaid and over worked. They are satisfied with their jobs. Particular attention is given to the experience of various librarians across the US. An article topic includes the discussion on a librarians work environment, tasks, job satisfaction, as well as survey statistics.

Rochester², Rochester Methodist Hospital, MN in his article reviews “Current literature related to cost-benefit analysis of employee training programs. After a conceptual stage is set and the meaning of terms is clarified, methodologies for measuring costs and benefits, and problems related to this process are discussed. Primary and secondary beneficiaries of training are identified. The need for distributional assignments of costs as a function of benefit is described. Following the identification of problems inherent in cost-benefit research, concluding comments focus on the need for practical applications of cost-benefit research”.

Gagnon M³ in his paper “Efficacy of training for three manual handling strategies based on the observation of expert and novice workers”, conceptualizes the objectives, design, background, methods and conclusions for the given topic.

¹ Garg Anupama ,Effectiveness of training health professionals in literature search skills using electronic health databases—a critical appraisal ,Health Information & Libraries Journal, Mar2003, Vol. 20 (1), p 33-39.

² Rochester Cost-Benefit Analysis of Employee Training, Adult Education Quarterly, Vol. 39, No. 2, 89-98 (1989)DOI: 10.1177/0001848189039002003

³ Gagnon M, Efficacy of training for three manual handling strategies based on the observation of expert and novice workers measurement model, Clinical Biomechanics, Aug 2003, Vol. 18(7), p601.

The objectives is to evaluate the efficacy of training for three manual handling strategies, i.e. load tilting/hands positioning, shoulders positioning and feet orientation based on the observation of the contrasted strategies of expert and novice workers and free practice using a search approach. The design is the ten novice male workers were tested at pre-

training (one trial) and post-training with homogeneous boxes (three trials) and heterogeneous boxes (two trials) sampled from two sessions. Training took place with homogeneous boxes whereas heterogeneous boxes were new situations. The background of the effectiveness of training programs in safe handling and the repetition of specified techniques are contested; they should rather be based on expert workers' strategies. The methods are Pre-training and post-training trials were analyzed with five video cameras and a large force plate. The biomechanical variables included three safety criteria: net 3D resulting moments at L5/S1, asymmetry of posture/efforts at L5/S1 and mechanical work on load; kinematics and ergonomic variables were used as explicative variables .Results. Training produced safer strategies by reducing mechanical work and back extensor moments; this occurred in both load conditions, an indication of the transfer of knowledge. These strategies consisted of changes in load maneuvers (tilting/hand positioning) and feet orientation. The conclusions are the training programs should be based on observations of workers. These results may guide the specialists involved in training programs. Training based on a search approach by the learner and anchored on observations of contrasted strategies (load tilts/hands positioning and feet orientation) by experts and novices appears promising for safe handling.

Narva Marshall A⁴ in his paper "Formative utilization of a model for the prediction of the effectiveness of training devices", conceptualises an attempt at a model, called train vice, has been developed for the army research institute. This model is based on an extensive review of the literature and is the result of analytical work by a team of experienced behavioural scientists. This paper will outline the original train vice model, its applications, and present suggestions and rationale for a revised model based upon a formatic utilization of train vice. The revision was undertaken with a view to enhancing the validity and practicality of application of the original model, based upon experience gained in its utilization.

Orlansky J⁵ in his paper "The performance of maintenance technicians on the job", reviews data on one possible measure for evaluating the effectiveness of training for maintenance technicians, i.e., the unnecessary removal of non-faulty parts during actions taken to identify and correct malfunctions in equipment. such data may be found in the maintenance management data systems of the military services. It was found that non-faulty components are removed in four to 43 percent of all corrective maintenance actions and account for nine to 32 percent of all maintenance man hours. Technicians fail to find a faulty part or damage a good part in about 10 percent of all corrective maintenance actions. It was concluded that these findings may be due to inadequate test equipment, tools, and maintenance manuals, as well as to inadequate training.

⁴ Narva Marshall A, Formative utilization of a model for the prediction of the effectiveness of training devices, Rep. No: Report ARI-RM-79-6, May 1979, 24p.

⁵ Orlansky J, The performance of maintenance technicians on the job, Rep. No: IDA-P-1597, August 1981, 29p.

Protzko Shandra⁶ in his paper "Some in Saskatchewan find the Cochran library useful after promotion, access and training efforts", reveals to evaluate the use of The Cochran Library by librarians, health care providers and consumers in the Canadian province of Saskatchewan. Design volunteer telephone interviews and surveys of training participants at multiple time point's usage statistics. Subject's Ninety-four volunteers participated in the study. Participants were self-selected from approximately 300 health practitioners and 100 public library staff attending training sessions, located primarily in rural areas. The majority of public library staff who attended training sessions were not professional librarians, although 31.5% of the study participants were librarians. Nurses made up the next largest group (16.3%), followed by therapists (7.6%), library support staff (5.4%), pharmacists (4.3%), physicians (3.3%), other health care providers (20.7%), and other (9.8%). Most were 40-65 years of age (71.6%) and female (92.4%).

Methods - Forty-six training sessions were provided upon request between October 2004 and December 2006. Attendees were invited to participate in the study. Telephone interviews were conducted at three, six, nine, and twelve months following training sessions. Demographic information and data on the use of and satisfaction with The Cochran Library were collected. Additionally, monthly statistics were tracked by Wiley-Blackwell for user sessions, number of searches, and the number of full-text articles and abstracts visited.

Main Results - Telephone interviews revealed that 65.2% of participants had accessed The Cochran Library at three months; 64.2% had at six months. At nine months access dropped to 45.2%. At twelve months only 27.4% of participants reported using the resource.

⁶ Protzko Shandra ,Some in Saskatchewan find the Cochran library useful after promotion, access and training efforts, Evidence Based Library & Information Practice, July 2008, Vol. 3 (2), p42-44.

This number decreased at six months (11.6%), nine months (7.7%) and twelve months (11.8%). 57.5% of respondents claimed to have learned something from.. had made the survey regarding Job satisfaction. According to a " Library Journal " Job satisfaction survey 85.6% of the 3095 library staffers who responded agreed they would choose a career in librarianship again if they to start over. Respondents gave "Love of Books" at the most common reason for choosing their careers, Information is provided for the salary and challenges of librarianship.

Bulgarelli Aviana⁷ in her paper "Information systems for the evaluation of the effectiveness and efficiency of vocational training programmes", discusses the requirements of an Information System (IS) for evaluating the efficiency and effectiveness of public intervention in the field of vocational training. The objective of this policy is to increase employability and reduce disparities in access to the labour market of EU-defined disadvantaged groups. The primary goal is to aid decision making of policy makers and managers. In this context, information asymmetry in the production of these services is a problem and the standard approach of the International Organization for Standardization can do little to promote quasi-market competition, which economists suggest as a solution to information asymmetry. The article recommends making a greater effort to develop an IS capable of assessing the effectiveness of training programmes and making the necessary corrections for selection bias with regard to the selection of the agencies managing the training programmes. The adoption of the standard used by current labour- force surveys is suggested.

⁷ Bulgarelli Aviana, Information systems for the evaluation of the effectiveness and efficiency of vocational training programmes, *Evaluation*, April 2004, Vol. 10 (2), p217-235.

Tennant Charles et.al.,⁸ in their paper “Design of a training programme measurement model”, reveals that the management in the British manufacturing sector has not really grasped the true value of training to their human resource as it does not increase the tangible net worth of the company. But the importance of training programs cannot be ignored. The effective training must have specific objective and outcomes, which directly lead to business and produce hidden assets. Very few companies in Great Britain measure the effectiveness of their training programs in terms of higher productivity, better on-the-job performance and improved quality. This is because a number of barriers exist, which prevent the appropriate evaluation mechanism for training programs. A study was conducted among British manufacturing companies, in order to identify those areas which manufacturing organizations should consider in order to improve the effectiveness of training programs for production operators. The authors proposed a training program measurement model, which has been adapted from existing concepts, and could be applied by manufacturing organizations as a framework for carrying out appropriate evaluation activities. The study found that training programs of British manufacturers fail to realize better potential in terms of higher productivity, better job performance and quality improvement.

⁸ Tennant Charles, Boonkrong Mahithorn & Roberts Paul A, Design of a training programme measurement model, Journal of European Industrial Training; 2002, Vol. 26 Issue 5, p230-240.

Arthur Jr., Winfred et.al.,⁹ in their paper “Effectiveness of training in organizations: A meta-analysis of design and evaluation features”, used meta-analytic procedures to examine the relationship between specified training design and evaluation features and the effectiveness of training in organizations.

Heckman-Stone, Carolyn¹⁰ in their paper “Trainee preferences for feedback and evaluation in clinical supervision”, reveals that the feedback and evaluation are essential roles of the supervisor in overseeing the welfare of clients, safeguarding the profession, monitoring and facilitating supervisee growth and development, modeling effective provision of feedback for supervisees to use with their clients, encouraging independent self-evaluation, motivating supervisees, and reviewing the effectiveness of training programs. A number of studies have demonstrated the effectiveness of constructive feedback as a powerful aid to learning.

⁹ Arthur Jr., Winfred , Bennett Jr., Winston & Edens, Pamela S , Effectiveness of training in organizations: A meta-analysis of design and evaluation features, *Journal of Applied Psychology*, April 2003, Vol. 88 (2), p234-245.

Results of the meta-analysis revealed training effectiveness sample-weighted mean *d*s of 0.60 (*k* = 15, *N* = 936) for reaction criteria, 0.63 (*k* = 234, *N* = 15,014) for learning criteria, 0.62 (*k* = 122, *N* = 15,627) for behavioral criteria, and 0.62 (*k* = 26, *N* = 1,748) for results criteria. These results suggest a medium to large effect size for organizational training. In addition, the training method used, the skill or task characteristic trained, and the choice of evaluation criteria were related to the effectiveness of training programs. Limitations of the study along with suggestions for future research are discussed.

¹⁰ Heckman-Stone Carolyn, Trainee preferences for feedback and evaluation in clinical supervision, *Clinical Supervisor*, Vol. 22 (1): 2003, p21-34.

Ricks Joe M et.al.,¹¹ in their paper “Sales trainer roles ,competencies, skills and behaviors”, reviews that the numerous studies have examined different issues related to evaluating the effectiveness of sales training programs. Limited needs assessment, lack of training objectives, no alignment between training objectives and corporate goals, and sales training content, are all potential factors that can influence the effectiveness of training programs. Yet, little attention has been paid to the role of a central actor in the training process — the sales trainer.

Rose Jacob M et.al.,¹² in their paper “Measurement of knowledge structures acquired through instruction, experience, and decision aid use”, investigate a method for measuring knowledge structure development in novice accountants by extending Bonner and Walker [Bonner, S. and P. Walker. 1994. The effects of instruction and experience on the acquisition of auditing knowledge. We employ Pathfinder network scaling, a recently developed and validated measure of knowledge structure acquisition, to determine whether the combinations of instruction and experience previously found to be effective in promoting declarative and procedural knowledge acquisition result in the development of expert-like knowledge structures. Results from two laboratory experiments indicate that Pathfinder-based measures of knowledge structure can effectively capture the effects of training and decision aid use on the development of expertise. The findings suggest that assessments of knowledge structures are valuable tools for measuring the effectiveness of training programs, and such assessments can be applied in decision domains where traditional measures of knowledge acquisition are insufficient or infeasible. Finally, the results indicate that properly designed decision aids can impart expert-like knowledge structures to novice decision makers, and these knowledge structures are the key to expertise.

Elton Lewis¹³ in his paper “Measure for measure”, focuses on the marketing excellence forum to discover how to measure the effectiveness of training programmes. Measuring the effectiveness of marketing campaigns is notoriously difficult; yet some savvy companies are taking this a step further. They're beginning to measure the success of their marketing capability programmes. Improving marketing capability can have an impact on the bottom line. By tying training into real business problems, creating a marketing culture and spreading examples of best practice across the organization; marketing budgets will work more efficiently.

¹¹ Ricks Joe M ,Williams Jacqueline A & Weeks William A, Sales trainer roles, competencies, skills and behaviors ,Industrial Marketing Management,Jul2008, Vol. 37 (5), p593-609.

The evaluation of sales training programs is incomplete without taking into consideration the qualifications of the trainer. Through a case study, this paper suggests there are 8 roles that are associated with the sales trainer position. To effectively execute these roles, this exploratory investigation identified 18 related skills that are grouped into 5 competencies. Recommendations are offered regarding the relevance of this research for practitioners and suggestions are provided for future research in this area.

¹² Rose Jacob M, Rose Anna M & McKay Britton, Measurement of knowledge structures acquired through instruction, experience, and decision aid use, International Journal of Accounting Information Systems, Jun 2007, Vol. 8 (2), p117-137.

¹³ Elton Lewis, Measure for measure, Brand Strategy, March 2005, Issue 190, p30-31.

Greenberg David H et.al.,¹⁴ in their paper “Do experimental and non-experimental evaluations give different answers about the effectiveness of government-funded training programs”, use meta-analysis to investigate whether random assignment (or experimental) evaluations of voluntary government-funded training programs for the disadvantaged have produced different conclusions than non-experimental evaluations. Information includes several hundred estimates from 31 evaluations of 15 programs that operated between 1964 and 1998. The results suggest that experimental and non-experimental evaluations yield similar conclusions about the effectiveness of training programs, but that estimates of average effects for youth and possibly men might have been larger in experimental studies.

¹⁴ Greenberg David H, Michalopoulos Charles & Robin Philip K, Do experimental and non-experimental evaluations give different answers about the effectiveness of government-funded training programs, *Journal of Policy Analysis & Management*, Vol. 25(3): 2006, p523-552.

The results also suggest that variation among non-experimental estimates of program effects is similar to variation among experimental estimates for men and youth, but not for women (for whom it seems to be larger), although small sample sizes make the estimated differences somewhat imprecise for all three groups. The policy implications of the findings are discussed.

Heaven Cathy et.al.,¹⁵ in their paper "Transfer of communication skills training from workshop to workplace: The impact of clinical supervision", recognized that the communication skills learned in the training environment are not always transferred back into the clinical setting. This paper reports a study which investigated the potential of clinical supervision in enhancing the transfer process. Methods: A randomized controlled trial was conducted involving 61 clinical nurse specialists. All attended a 3-day communication skills training workshop. Twenty-nine were then randomized to 4 weeks of clinical supervision, aimed at facilitating transfer of newly acquired skills into practice. Assessments, using real and simulated patients, were carried out before the course, immediately after the supervision period and 3 months later. Interviews were rated objectively using the Medical Interview Aural Rating Scale (MIARS) to assess nurses' ability to use key skills, respond to patient cues and identify patient concerns. Results: Assessments with simulated patients showed that the training programme was extremely effective in changing competence in all three key areas. However, only those who experienced supervision showed any evidence of transfer. Improvements were found in the supervised groups' use of open questions, negotiation and psychological exploration. Whilst neither group facilitated more disclosure of cues or concerns, those in the experimental group responded more effectively to the cues disclosed, reduced their distancing behavior and increasing their exploration of cues.

¹⁵ Heaven Cathy , Clegg Jenny & Maguire Peter, Transfer of communication skills training from workshop to workplace: The impact of clinical supervision, Patient Education & Counseling, Mar2006, Vol. 60 (3), p313-325.

Conclusions: The study has shown that whilst training enhances skills, without intervention, it may have little effect on clinical practice. The potential role of clinical supervision as one way of enhancing the clinical effectiveness of communication skills training programmes has been demonstrated.

Archer Jeff¹⁶ in his paper "Principals training goes under a microscope", reveals that today in most states, becoming a principal requires completion of a training program that includes a mix of coursework and some kind of internship, usually through a college of education. Whether those regimens produce administrators who can improve school performance is, for the most part, anyone's guess, contends Linda Darling-Hammond, an education professor at Stanford University. With a grant of nearly \$1.25 million from the New York City-based Wallace Foundation, Darling-Hammond is leading a new study of the effectiveness of training programs for school principals. In examining eight such programs, the scholar's research team plans not only to inspect their content, but also to evaluate the on-the-job performance of people who went through them about changing the rules that govern how administrators are groomed.

¹⁶ Archer Jeff, Principals training goes under a microscope, Education Week, August 9, 2004, p.8.

Data Analysis and Interpretation

CHAPTER 3

DATA ANALYSIS AND INTERPRETATION

3.1 Chi-Square Analysis

Chi-square is a non-parametric test of statistical significance for bivariate tabular analysis. A non-parametric test, like chi square, is a rough estimate of confidence.

Chi-square is used most frequently to test the statistical significance of results reported in bivariate tables and interpreting bivariate tables is integral to interpreting the results of a chi-square test.

Chi – Square Test Method

The Chi – square method is the application of testing the significant difference between observed and expected values.

Null Hypothesis (H_0):

The hypothesis, or assumption, about a population parameter we wish to test, usually an assumption of the status quo.

Alternative Hypothesis (H_1)

The conclusion we accept when the data fail to support the null hypothesis.

Statistical Test:

$$\begin{aligned} \text{Chi-square test } (\chi^2) &= \sum \frac{(O - E)^2}{E} \\ \text{Degrees of freedom} &= (R-1)(C-1) \end{aligned}$$

whereas,

O	=	Observed frequency
E	=	Expected frequency
R	=	Number of rows
C	=	Number of columns

To find E :

$$\text{Expected Frequency} = \frac{\text{Row Total} \times \text{Column Total}}{\text{Grand Total}}$$

Level of Significance (α):

A value indicating the percentage of sample values that is outside certain limits, assuming the null hypothesis is correct, that is, the probability of rejecting the null hypothesis when it is true.

TABLE NO. 3.1.1

EDUCATION AND LEVEL OF SATISFACTION TOWARDS ACQUIRE TECHNICAL KNOWLEDGE AND SKILLS THROUGH TRAINING (TWO-WAY TABLE)

S.No.	Education	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	ITI	8	23	5	2	38
2	Diploma	6	15	7	1	29
3	Engg Graduates	2	7	8	1	18
4	Graduates	0	10	3	2	15
	Total	16	55	23	6	100

Null Hypothesis (H_0)

- There is no significant relationship between education and level of satisfaction towards acquire technical knowledge and skills through training

Alternative Hypothesis (H_1)

- There is close relationship between education and level of satisfaction towards acquire technical knowledge and skills through training

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	12.136
Degree of freedom	=	9
Table value	=	16.919
Significant result	=	Significant at 5% level

INFERENCE :

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between education and level of satisfaction towards acquire technical knowledge and skills through training.

TABLE NO. 3.1.2

**AGE AND LEVEL OF SATISFACTION TOWARDS
WELL PLANNED TRAINING
(TWO-WAY TABLE)**

S.No.	Age	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	Between 31 and 40	4	20	6	1	31
2	Between 41 and 50	4	25	7	3	39
3	Above 50	2	18	10	0	30
	Total	10	63	23	4	100

- Null Hypothesis (H_0) - There is no significant relationship between age and level of satisfaction towards well planned training.
- Alternative Hypothesis (H_1) - There is close relationship between age and level of satisfaction towards well planned training.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	5.231
Degree of freedom	=	6
Table value	=	12.592
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between age and level of satisfaction towards well planned training.

TABLE NO. 3.1.3

AGE AND LEVEL OF SATISFACTION TOWARDS TRAINING GIVEN
BEFORE IMPLEMENTING ANY CHANGE IN THE JOB
(TWO-WAY TABLE)

S.No.	Age	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	Between 31 and 40	3	14	10	4	0	31
2	Between 41 and 50	3	22	11	2	1	39
3	Above 50	4	14	8	4	0	30
	Total	10	50	29	10	1	100

Null Hypothesis (H_0) - There is no significant relationship between age and level of satisfaction towards training is given before implementing any change in the job.

Alternative Hypothesis (H_1) - There is close relationship between age and level of satisfaction towards training is given before implementing any change in the job.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value = 4.336
 Degree of freedom = 8
 Table value = 15.507
 Significant result = Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between age and level of satisfaction towards training given before implementing any change in the job.

TABLE NO. 3.1.4

**EDUCATION AND LEVEL OF SATISFACTION TOWARDS
IMPROVED PERFORMANCE THROUGH TRAINING
(TWO-WAY TABLE)**

S.No.	Education	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	ITI	2	29	6	1	38
2	Diploma	9	12	7	1	29
3	Engg Graduates	1	12	5	0	18
4	Graduates	0	13	2	0	15
	Total	12	66	20	2	100

- Null Hypothesis (H_0) - There is no significant relationship between education and level of satisfaction towards training results in improved (performance) effectiveness.
- Alternative Hypothesis (H_1) - There is close relationship between education and level of satisfaction towards training results in improved (performance) effectiveness.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	19.361
Degree of freedom	=	9
Table value	=	16.919
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is greater than the table value and hence, the null hypothesis rejected. So, there is a close significant relationship between Education and level of satisfaction towards improved performance through training.

TABLE NO. 3.1.5

EXPERIENCE AND LEVEL OF SATISFACTION TOWARDS I LEARNED WHICH I EXPECT THROUGH TRAINING (TWO-WAY TABLE)

S.No.	Experience	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	Between 11 and 20 years	6	29	13	1	49
2	Above 21 years	7	27	15	2	51
	Total	13	56	28	3	100

- Null Hypothesis (H_0) - There is no significant relationship between experience and level of satisfaction towards I learned which I expect through training.
- Alternative Hypothesis (H_1) - There is close relationship between experience and level of satisfaction towards I learned which I expect through training.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	0.59
Degree of freedom	=	3
Table value	=	7.815
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between experience and level of satisfaction towards I learned which I actually expect through training.

TABLE NO. 3.1.6

**DESIGNATION AND LEVEL OF SATISFACTION TOWARDS
MATERIAL PROVIDED DURING TRAINING WAS USEFUL
(TWO-WAY TABLE)**

S.No.	Designation	Level of Satisfaction					Total
		Highly Satisfid	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	AGM	0	3	0	0	0	3
2	EA-Grill	0	0	1	0	0	1
3	Jr.Mngr	1	4	1	0	1	7
4	Sr.Mngr	0	3	2	0	0	5
5	Sr.Opr	10	18	9	4	0	41
6	Sr.Tech	5	22	13	3	0	43
	Total	16	50	26	7	1	100

Null Hypothesis (H_0) -

There is no significant relationship between designation and level of satisfaction towards material provided during the training programme was highly useful

Alternative Hypothesis (H_1) -

There is close relationship between designation and level of satisfaction towards material provided during the training programme was highly useful

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	31.84
Degree of freedom	=	20
Table value	=	31.410
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is greater than the table value and hence, the null hypothesis rejected. So, there is significant relationship between designation and level of satisfaction towards material provided during the training was highly useful.

TABLE NO. 3.1.7

DEPARTMENT AND LEVEL OF SATISFACTION TOWARDS
I RECOMMEND MY TRAINING TO OTHERS
(TWO-WAY TABLE)

S.No.	Department	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	CEM/WRSS	0	5	1	0	6
2	CMM	1	2	3	1	7
3	CRM	4	16	10	1	31
4	Computer	0	2	1	0	3
5	Electrical	0	6	5	0	11
6	HRM	4	18	6	2	30
7	Opn	0	6	1	0	7
8	Personnel	0	1	0	0	1
9	Safety	0	3	1	0	4
	Total	9	59	28	4	100

Null Hypothesis (H_0) - There is no significant relationship between department and level of satisfaction towards I recommend my training to others.

Alternative Hypothesis (H_1) - There is close relationship between department and level of satisfaction towards I recommend my training to others.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	15.485
Degree of freedom	=	24
Table value	=	36.415
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between department and level of satisfaction towards I recommend my training to others.

TABLE NO. 3.1.8**AGE AND LEVEL OF SATISFACTION TOWARDS NORMS AND VALUES ARE CLEARLY EXPLAINED TO THE TRAINEES****(TWO-WAY TABLE)**

The norms and values of the company are clearly explained to the new employees during training

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S.No.	Age	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	Between 31 and 40	11	15	5	0	31
2	Between 41 and 50	7	22	8	2	39
3	Above 50	5	16	7	2	30
	Total	23	53	20	4	100

Null Hypothesis (H_0) - There is no significant relationship between age and level of satisfaction towards norms and values are clearly explained to the trainees during training.

Alternative Hypothesis (H_1) - There is close relationship between age and level of satisfaction towards norms and values are clearly explained to the trainees during training.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	6.3856
Degree of freedom	=	6
Table value	=	12.592
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between age and level of satisfaction towards norms and values are clearly explained to the trainees during training.

TABLE NO. 3.1.9

EDUCATION AND LEVEL OF SATISFACTION TOWARDS
IMPACT OF TRAINING ON MY PERFORMANCE
(TWO-WAY TABLE)

S.No.	Education	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	ITI	7	22	7	2	38
2	Diploma	4	19	6	0	29
3	Engg Graduates	2	8	8	0	18
4	Graduates	0	14	1	0	15
	Total	13	63	22	2	100

Null Hypothesis (H_0) - There is no significant relationship between education and level of satisfaction towards impact of training on my performance in the job.

Alternative Hypothesis (H_1) - There is close relationship between education and level of satisfaction towards impact of training on my performance in the job.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value = 15.43

Degree of freedom = 9

Table value = 16.919

Significant result = Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between education and level of satisfaction towards impact of training on my performance in the job.

TABLE NO. 3.1.10

**EXPERIENCE AND LEVEL OF SATISFACTION TOWARDS
TRAINING HELPS IN GROWTH AND DEVELOPMENT
(TWO-WAY TABLE)**

S.No.	Experience	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	Between 11 and 20 years	5	34	10	0	49
2	Above 21 Years	12	28	8	3	51
	Total	17	62	18	3	100

Null Hypothesis (H_0) - There is no significant relationship between experience and level of satisfaction towards training helps in growth and development.

Alternative Hypothesis (H_1) - There is close relationship between experience and level of satisfaction towards training helps in growth and development.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	6.64
Degree of freedom	=	3
Table value	=	7.815
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between experience and level of satisfaction towards training helps in growth and development.

TABLE NO. 3.1.11

**DESIGNATION AND LEVEL OF SATISFACTION TOWARDS
ADEQUATE TRAINING METHODS AND AIDS**

(TWO-WAY TABLE)

S.No.	Designation	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	AGM	0	2	1	0	0	3
2	EA-Grill	0	1	0	0	0	1
3	Jr.Mngr	1	2	3	0	1	7
4	Sr.Mngr	0	2	2	1	0	5
5	Sr.Opr	3	22	16	0	0	41
6	Sr.Tech	2	26	11	4	0	43
	Total	6	55	33	5	1	100

Null Hypothesis (H_0)

- There is no significant relationship between designation and level of satisfaction towards adequate training methods and aids.

Alternative Hypothesis (H_1)

- There is close relationship between designation and level of satisfaction towards adequate training methods and aids.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	25.4
Degree of freedom	=	20
Table value	=	31.410
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between designation and level of satisfaction towards adequate training methods and aids.

TABLE NO. 3.1.12

DEPARTMENT AND LEVEL OF SATISFACTION
TOWARDS TRAINING IS WELL PLANNED
(TWO-WAY TABLE)

S.No.	Department	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	CEM/WRSS	0	4	2	0	6
2	CMM	1	4	2	0	7
3	CRM	2	21	7	1	31
4	Computer	0	2	1	0	3
5	Electrical	1	3	5	2	11
6	HRM	5	20	4	1	30
7	OPM	1	5	1	0	7
8	Personnel	0	1	0	0	1
9	Safety	0	3	1	0	4
	Total	10	63	23	4	100

Null Hypothesis (H_0) - There is no significant relationship between department and level of satisfaction towards training is well planned.

Alternative Hypothesis (H_1) - There is close relationship between department and level of satisfaction towards training is well planned.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	17.088
Degree of freedom	=	24
Table value	=	36.415
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between department and level of satisfaction towards training is well planned.

TABLE NO. 3.1.13

AGE AND LEVEL OF SATISFACTION TOWARDS TRAINING IS GIVEN IMPORTANCE IN MY ORGANIZATION (TWO-WAY TABLE)

S.No.	Age	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	Between 31 and 40	4	19	7	0	1	31
2	Between 41 and 50	6	24	8	1	0	39
3	Above 50	1	17	10	2	0	30
	Total	11	60	25	3	1	100

Null Hypothesis (H_0) - There is no significant relationship between age and level of satisfaction towards training is given importance in my organization.

Alternative Hypothesis (H₁) - There is close relationship between age and level of satisfaction towards training is given importance in my organization.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value = 13.135
 Degree of freedom = 8
 Table value = 15.507
 Significant result = Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between age and level of satisfaction towards training is given importance in my organization.

TABLE NO. 3.1.14

EDUCATION AND LEVEL OF SATISFACTION TOWARDS TECHNICAL COMPETENCIES DEVELOPED THROUGH TRAINING (TWO-WAY TABLE)

S.No.	Education	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	ITI	3	23	10	2	0	38
2	Diploma	4	21	2	2	0	29
3	Engg Graduates	2	9	5	1	1	18
4	Graduates	0	8	6	0	1	15
	Total	9	61	23	5	2	100

- Null Hypothesis (H_0) - There is no significant relationship between education and level of satisfaction towards technical competencies developed through training.
- Alternative Hypothesis (H_1) - There is close relationship between education and level of satisfaction towards technical competencies developed through training.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	13.95
Degree of freedom	=	12
Table value	=	21.026
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between education and level of satisfaction towards technical competencies are adequately developed in my organization through training

TABLE NO. 3.1.15

EXPERIENCE AND LEVEL OF SATISFACTION TOWARDS
INTERACTION WITH THE TRAINERS
(TWO-WAY TABLE)

S.No.	Experiene	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	Between 11 and 20 Years	6	29	13	0	1	49
2	Above 21 years	8	29	13	1	0	51
	Total	14	58	26	1	1	100

Null Hypothesis (H_0) - There is no significant relationship between experience and level of satisfaction towards interaction with the trainers.

Alternative Hypothesis (H_1) - There is close relationship between experience and level of satisfaction towards interaction with the trainers.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value = 3.045
 Degree of freedom = 4
 Table value = 9.488
 Significant result = Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between experience and level of satisfaction towards interaction with the trainers.

TABLE NO. 3.1.16

**DESIGNATION AND LEVEL OF SATISFACTION TOWARDS
MANAGEMENT TAKES INTEREST AND SPENDS TIME
WITH NEW STAFF DURING TRAINING
(TWO-WAY TABLE)**

S.No.	Designation	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	AGM	1	2	0	0	3
2	EA-Grill	0	1	0	0	1
3	Jr.Mngr	0	2	5	0	7
4	Sr.Mngr	1	1	2	1	5
5	Sr.Opr	6	23	10	2	41
6	Sr.Tech	5	28	6	4	43
	Total	13	57	23	7	100

Null Hypothesis (H_0)

- There is no significant relationship between designation and level of satisfaction towards management takes interest and spends time with the new staff during training.

Alternative Hypothesis (H₁) - There is close relationship between designation and level of satisfaction towards management takes interest and spends time with the new staff during training

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	14.845
Degree of freedom	=	15
Table value	=	24.996
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between designation and level of satisfaction towards senior management takes interest and spends time with the new staff during training

TABLE NO. 3.1.17

AGE AND LEVEL OF SATISFACTION TOWARDS
INTERACTION WITH THE TRAINEES
(TWO-WAY TABLE)

S.No.	Age	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	Between 31 and 40	2	19	9	0	1	31
2	Between 41 and 50	4	22	13	0	0	39
3	Above 50	5	15	7	3	0	30
	Total	11	56	29	3	1	100

Null Hypothesis (H_0) - There is no significant relationship between age and level of satisfaction towards interaction with the trainees.

Alternative Hypothesis (H_1) - There is close relationship between age and level of satisfaction towards interaction with the trainees.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value = 10.641
 Degree of freedom = 8
 Table value = 15.507
 Significant result = Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between age and level of satisfaction towards interaction with the trainees.

TABLE NO. 3.1.18

EDUCATION AND LEVEL OF SATISFACTION TOWARDS
TRAINING IS OF SUFFICIENT DURATION
(TWO-WAY TABLE)

S.No.	Education	Level of Satisfaction					Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	Highly Dissatisfied	
1	ITI	5	21	9	2	1	38
2	Diploma	3	10	15	1	0	29
3	Engg Graduates	2	11	5	0	0	18
4	Graduates	0	11	4	0	0	15
	Total	10	53	33	3	1	100

Null Hypothesis (H_0) - There is no significant relationship between education and level of satisfaction towards training is of sufficient duration.

Alternative Hypothesis (H_1) - There is close relationship between education and level of satisfaction towards training is of sufficient duration

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value = 12.912
 Degree of freedom = 12
 Table value = 21.026
 Significant result = Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between education and level of satisfaction towards training is of sufficient duration.

TABLE NO. 3.1.19

**EXPERIENCE AND LEVEL OF SATISFACTION TOWARDS
I LEARNED WHICH I EXPECT THROUGH TRAINING
(TWO-WAY TABLE)**

S.No.	Experience	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	Between 11 and 20 years	7	30	9	3	49
2	Above 21 years	9	25	14	3	51
	Total	16	55	23	6	100

Null Hypothesis (H_0) - There is no significant relationship between experience and level of satisfaction towards I learned which I expect through training

Alternative Hypothesis (H_1) - There is close relationship between experience and level of satisfaction towards I learned which I expect through training

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	1.762
Degree of freedom	=	3
Table value	=	7.815
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between experience and level of satisfaction towards I learned which I actually expect through training.

TABLE NO. 3.1.20

**EDUCATION AND LEVEL OF SATISFACTION TOWARDS
ADEQUATE TRAINING METHODS AND AIDS
(TWO-WAY TABLE)**

S.No.	Education	Level of Satisfaction				Total
		Highly Satisfied	Satisfied	Neutral	Dissatisfied	
1	ITI	7	22	7	2	38
2	Diploma	6	16	7	0	29
3	Engg Graduates	3	11	3	1	18
4	Graduates	1	13	1	0	15
	Total	17	62	18	3	100

- Null Hypothesis (H_0) - There is no significant relationship between education and level of satisfaction towards adequate training methods and aids.
- Alternative Hypothesis (H_1) - There is close relationship between education and level of satisfaction towards adequate training methods and aids.

CHI-SQUARE (χ^2) CALCULATION:

Calculated χ^2 value	=	7.073
Degree of freedom	=	9
Table value	=	16.919
Significant result	=	Significant at 5% level

INFERENCE

From the above analysis, we find that the calculated value of χ^2 is lesser than the table value and hence, the null hypothesis accepted. So, there is no significant relationship between education and level of satisfaction towards adequate training methods and aids.

3.2 EMPLOYEE PROFILE

**TABLE NO.3.2.1
AGE OF THE RESPONDENTS**

S.No.	Age	No. of Respondents	Percentage
1.	Between 31 and 40	31	31
2.	41 - 50	39	39
3.	Above 50	40	40
	Total	100	100

INFERENCE

From the above table 40 % of employees are belonging to the age group above 50. 39 % of employees belong to the age group between 41 – 50 and 31 % of employees belong to the age group between 31 and 40.

TABLE NO.3.2.2
EDUCATIONAL QUALIFICATION

S.No.	Educational Qualification	No. of Respondents	Percentage
1.	ITI	38	38
2.	Diploma	29	29
3.	Engineering Graduates	18	18
4.	Graduates	15	15
	Total	100	100

INFERENCE

From the above table 38 % of employees are ITI people. 29 % of employees were Diploma holders. 18 % of employees are Engineering Graduates and 15 % of employees are Graduates.

TABLE NO.3.2.3
EXPERIENCE OF EMPLOYEES

S.No.	Experience of Employees	No. of Respondents	Percentage
1.	11 – 20 years	49	49
2.	Above 21 years	51	51
	Total	100	100

INFERENCE

From the above table 51 % of the employees have experience above 21 years and 49 % of employees have the experience between 11 – 20 years.

TABLE NO.3.2.4
DESIGNATION OF EMPLOYEES

S.No.	Designation	No. of Respondents	Percentage
1.	AGM	3	3
2.	EA-Grill	1	1
3.	Jr.Mngr	7	7
4.	Sr.Mngr	5	5
5.	Sr.Opr	41	41
6.	Sr.Tech	43	43
	Total	100	100

INFERENCE

From the above table 43 % of respondents are working as Senior Technician . 41 % of respondents are working as Senior Operator. 7 % of respondents are Junior Manager, 5 % of respondents are Senior Manager, 3 % of respondents are AGM and 1 respondent is working under the designation as EA-Grill.

TABLE NO.3.2.5
DEPARTMENT OF EMPLOYEES

S.No.	Department	No. of Respondents	Percentage
1.	CEM/WRSS	6	6
2.	CMM	7	7
3.	CRM	31	31
4.	Computer	3	3
5.	Electrical	11	11
6.	HRM	30	30
7.	Opn	7	7
8.	Personnel	1	2
9.	Safety	4	3
	Total	100	100

INFERENCE

From the above table 31 % of respondents are working under the department of CRM.30 % of respondents are working in HRM department .11 % of respondents are working under Electrical department and 7 % each of respondents are working under Operation and CMM department. 6 % of respondents are working under CEM/WRSS department. 3 % each of respondents are working under Computer and Safety department and 2 % of respondents are working under Personnel department.

Findings ,Suggestions and Conclusion

CHAPTER 4

FINDINGS, SUGGESTIONS AND CONCLUSION

4.1. FINDINGS

- There is no significant relationship between education and level of satisfaction towards acquire technical knowledge and skills through training.
- There is no significant relationship between age and level of satisfaction towards well planned training.
- There is no significant relationship between age and level of satisfaction towards training given before implementing any change in the job.
- There is a close significant relationship between Education and level of satisfaction towards improved performance through training.
- There is no significant relationship between experience and level of satisfaction towards I learned which I actually expect through training.
- There is a close significant relationship between designation and level of satisfaction towards material provided during the training was highly useful.
- There is no significant relationship between department and level of satisfaction towards I recommend my training to others.
- There is no significant relationship between age and level of satisfaction towards norms and values are clearly explained to the trainees during training.
- There is no significant relationship between education and level of satisfaction towards impact of training on my performance in the job.
- There is no significant relationship between experience and level of satisfaction towards training helps in growth and development.

- There is no significant relationship between designation and level of satisfaction towards adequate training methods and aids.
- There is no significant relationship between department and level of satisfaction towards training is well planned.
- There is no significant relationship between age and level of satisfaction towards training is given importance in my organization.
- There is no significant relationship between education and level of satisfaction towards technical competencies are adequately developed in my organization through training
- There is no significant relationship between experience and level of satisfaction towards interaction with the trainers.
- There is no significant relationship between designation and level of satisfaction towards senior management takes interest and spends time with the new staff during training
- There is no significant relationship between age and level of satisfaction towards interaction with the trainees.
- There is no significant relationship between education and level of satisfaction towards training is of sufficient duration.
- There is no significant relationship between experience and level of satisfaction towards I learned which I actually expect through training.
- There is no significant relationship between education and level of satisfaction towards adequate training methods and aids.

- 40 % of employees are belonging to the age group above 50. 39 % of employees belong to the age group between 41 – 50 and 31 % of employees belong to the age group between 31 and 40.
- 38 % of employees are ITI people. 29 % of employees were Diploma holders. 18 % of employees are Engineering Graduates and 15 % of employees are Graduates.
- 51 % of the employees have experience above 21 years and 49 % of employees have the experience between 11 – 20 years.
- 43 % of respondents are working as Senior Technician . 41 % of respondents are working as Senior Operator. 7 % of respondents are Junior Manager, 5 % of respondents are Senior Manager, 3 % of respondents are AGM and 1 respondent is working under the designation as EA-Grill.
- 31 % of respondents are working under the department of CRM.30 % of respondents are working in HRM department .11 % of respondents are working under Electrical department and 7 % each of respondents are working under Operation and CMM department. 6 % of respondents are working under CEM/WRSS department. 3 % each of respondents are working under Computer and Safety department and 2 % of respondents are working under Personnel department.

4.2 SUGGESTIONS

When I approached the employees for the purpose of survey they came with many open answers which expressed their organizational environment their needs and wants.

They also showed their interest and earnestness for the betterment of the company output.

There is a close significant relationship between Education and level of satisfaction towards improved performance through training. So based upon the education and existing knowledge of employees , training has to be given which in turn improves their performance in the job and thus results in growth of both the employees and the organization.

There is a close significant relationship between designation and level of satisfaction towards material provided during the training which was found highly useful. Based on the designation and the nature of training attended by the employees material has to be provided with care which helps in achieving better result through training. This will ends up in getting better performance in their jobs.

4.3 CONCLUSION

This project was done in Salem Steel Plant, Salem to examine the effectiveness of Training and Development in the organization. The project also evaluates how the employees in this company work hard for its bright future to uncover the future of steel industry in India.

In this project, we found out the effectiveness of training programme offered in Salem Steel Plant.

Employees are satisfied towards acquiring technical knowledge and skills through training.

Employees are satisfied that training helps in growth and development of their performance in the job.

We understood how employees perceive their work experience and identified the opportunities to improve the working environment through attending effective training programmes.

We understood the effectiveness of training programmes from different perspectives.

We identified the perceived importance of the training programmes offering in the organization and also the issues if effective training programme was not provided to the employees.

Appendix



ANNEXURE

A STUDY ON EFFECTIVENESS OF TRAINING PROGRAMME OFFERED IN SALEM STEEL PLANT

Dear Respondents,

I am G.P.Kunthavai doing my final year MBA in Kumaraguru College of Technology. I have been permitted to undertake final year project under the title "A Study on Effectiveness of Training Programmes Offered in Salem Steel Plant" in Salem Steel Plant in partial fulfillment of the requirement for the degree. Kindly I request you to answer for the following questions.

1. Name

2. Gender

a) Male b) Female

3. Age

a) 20 to 30 b) 31 to 40 c) 41 to 50 d) above 50

4. Educational Qualification

a) ITI b) Diploma c) Engineering Graduates d) Graduates

5. Experience

a) Below 5 years b) 6 – 10 years c) 11 – 20 years d) above 21 years

6. Designation

7. Department

8. How many training programmes have you attended in this organization

- a) Below 5 b) 6 – 10 c) 11 – 15 d) 16 – 20 e) above 21

9. Please read the following and tick your appropriate response in 5 point scale. I assure you, these data are purely for academic purpose and it will be kept confidential.

HS-Highly Satisfied, **S**-Satisfied, **N**-Neutral, **D**-Dissatisfied, **HD**-Highly Dissatisfied

Questions	HS	S	N	D	HD
Training is well planned					
Training is of sufficient duration					
Training provides an excellent opportunity for newcomers to learn completely about the organization					
The norms and values of the company are clearly explained to the new employees during training					
Senior management takes interest and spends time with the new staff during training					
Training is periodically evaluated and improved					
I am helped to acquire technical knowledge and skills through training					
Technical competencies are adequately developed in my organization through training					
Interaction with the trainees					
Training is given before implementing any change in the job					

Adequate Training methods and aids					
Training helps in growth and development					
Impact of training on my performance in the job					
Training results in improved (performance) effectiveness					
Training is given adequate importance in my organization					
I recommend my training to others					
Material provided during the training programme was highly useful					
Interaction with the trainers					
I learned from the training programme which I actually expected					

10. Suggestions regarding training and development

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