**INDUSTRIAL PSYCHOLOGY: UNIT-1**

Industrial psychology is concerned with people's work-related values, attitudes and behaviours, and how these are influenced by the conditions in which they work. The term 'Industrial Psychology' is a combination of two words 'Industrial' and 'Psychology'. Industrial is that part of social life whose function is to provide civilized man with the material goals that his condition

of life demand. Psychology is the science of behaviour in relation to environment. Thus industrial psychology is the systematic study of the behaviour of the people at work. It studies how the social, industrial, economic, political and other factors affect the behaviour of the people at work.

**According to** **C.S. Myres**, “The aim of industrial psychology is primarily not to obtain greater production or output but to give the worker greater ease at his work.”

**According to** **Thomas W. Harrell**, “Industrial psychology may be defined as the study of people as individuals and in groups and of the relationship between individual and group.”

**According to Blum and Naylor**, “Industrial psychology is simply the application or extension of psychology facts and principles to the problem concerning human beings operating within the context of business and industry.”

**According to Tiffin and McCormick**, “Industrial psychology is concerned with the study of human behaviour in those aspects of life that are related to production, distribution and use of goods and services of our civilization.”

**According to Guion**, “The scientific study of the relationship between man and the world at work: The study of adjustment people make to the place they go, the people they meet and the things they do in the process of making a living.”

**CHARACTERISTICS OF INDUSTRIAL PSYCHOLOGY**

1. **Systematic study**: Industrial psychology is the systematic study of human behaviour concerned with collecting the information regarding human behaviour at work. What are the different factors which affect the work of an individual either they are personal or related to working conditions.
2. **Research**: Industrial psychology is not concerned with administration. They are the part of the research. Whatever information gathered from the work should be implemented and the personnel administration is the application of such research.
3. **Functional/Applied**: It is concerned with the application of information about human behaviour to the various problems of industrial human life.
4. **Human engineering**: It studies the varied methods of performing manual operations for the better utilization and the least waste of effort through human engineering.

**SCOPE OF INDUSTRIAL PSYCHOLOGY**

1. **Scientific selection of workers** - Industrial psychology offers a whole arrangement of tests such as systematic depth interviews and psychological tests of intelligence, aptitude, skills, abilities and interests the personnel characteristic etc. By these tests candidates are measured and properly selected and placed on the job.
2. **Proper division of work -** One of the scopes of industrial psychology is the work should be properly divided according to the abilities, skills and aptitude of the workers so they may feel comfortable and satisfied. It may also lead higher production.
3. **Minimizing the wastage of human efforts** - Industrial psychology tries to minimize the wastage of human power. It studies psychological factors causing fatigue or accident and give feasible suggestions to prevent them. The techniques of motivation and morale are used for this purpose.
4. **Promoting labour welfare** - It promotes the welfare of the labour by introducing adequate working environment through which job satisfaction, work efficiency increases and also state the provisions of higher incentives.
5. **Enhancement of human relations** - Human relations are the relation among individuals in an organization and the group behaviour that emerge from their relations. Most of problems arise in the industries are connected to human relation. If workers' feel ease with the surrounding then automatically they get motivated and productivity will be higher. Industrial psychology has made significant contribution in framing the techniques of leadership, worker participation, communication etc.
6. **Developing industrial relations** - Industrial psychology studies the attitude of the employer and employees. Individuals differ from each others in their thoughts, thinking, behaviour and other parameters. Therefore, different measures may be adopted in solving the problem relating to each individual like transfers, promotions, grievances etc. This helps in developing industrial relationship among workers' and management.
7. **Increase production** - It helps in attaining the major objective of the organization that to get the best output from the existing resources. The production is automatically increased if proper selection is made, the work will be properly distributed, accident prevention and safety measures suggested. This will improve and promote individual as well as industrial relations.

**HISTORICAL DEVELOPMENT OF INDUSTRIAL PSYCHOLOGY**

Bryan & Harter (1897) published a first paper describing the study and application of psychology to work activities (Morse code telegraphic) coined the term “industrial psychology” by mistake.

During the First and Second World War when various industrial organizations and plants faced a number of problems related to production, efficiency and individual employees, the help of industrial psychologist are in great demand. At this stage, industrial psychology received a special status, although it began in America in 1901, and England soon after.

The first book, “The Psychology of Industrial Efficiency”, written by Hugo Munsterberg in 1913 was dealing with various problems faced by the industries and analysis of such problem from the psychological point of view.

During the war years, the Fatigue Research Board was organized in Great Britain to discover the problems connected with working hours, condition of work, problems associated with fatigue and monotony/boredom, accident and safety measures and other work related matters.

In 1925, social psychology of industry entered into the arena of industrial psychology therefore, interpersonal and intrapersonal relationships, theories of motivations, importance of communication and other associated areas were investigated.

In 1917, Journal of applied psychology made its appearance and at the same time it introduced as a subject of applied psychology.

The classical studies, started in 1927 by the famous Hawthorne group, contributed to the development of industrial psychology in a major way. Their finding ultimately changed the trends and approach of industrial psychology from economic to social , from the work-oriented attitude to a workers-oriented attitude.

During the Second World War, the applied psychology research unit of the Medical Research Council of Great Britain carried out several researches and investigations to solve many industrial and organizational problems. American Association of Applied Psychology, 1937 was the first association for industrial psychology. Major organization after the Second World War divided into two parts. **Human factor society**, it was associated with the American group

of applied psychology with interest in human engineering problem. **Ergonomics society**, it was British counterpart of human factor. Societyoccupational psychology and ergonomics are two journals.Considerable attention was focused on various human relations andsocial problems of industry during the later part of 1940's and in the 1950's.Problems related to supervision, group dynamics, leadership, employees'interaction with others, employees attitude, morale, job satisfaction,communication process and others.

In the beginning of the 1960's organizational psychology began to enter the area of industrial psychology and as such, special emphasis was given to the organizational inputs in the industrial situation. The psychologists who have made valuable contributions to the development of industrial psychology are Walter, Dill and Scott. The industrial psychology division of American Psychological Association was established in 1945 and gave professional recognition to industrial psychology. Though industrial psychology a neglected branch of applied psychology in India. After the Second World War and particularly after Independence, it got special recognition from Indian psychologists. With the establishment of various universities, centre and institutes in India, research in industrial psychology has been accelerated after 1950's.

In 1970's, the division of industrial psychology was renamed as the division of industrial and organizational psychology. An eminent industrial and organizational psychologist of India Professor Durganand Sinha (1971) has made a valuable survey of the important topics of research in industrial psychology in India.

**SCIENTIFIC MANAGEMENT**

Frederick Winslow Taylor devised a system he called scientific management, a form of industrial engineering that established the organization of work as in Ford's assembly line. This discipline, along with the industrial psychology established by others at the Hawthorne Works of Western Electric in the 1920s, moved management theory from early time-and-motion studies

to the latest total quality control ideas.

Scientific management theory arose in part from the need to increase productivity. In the United States especially, skilled labour was in short supply at the beginning of the 20th century. The only way to expand the productivity was to raise the efficiency of workers. Therefore, Frederick W. Taylor, Henry Gantt, and Frank and Lillian Gilbreth devised the body of principles known as scientific management theory.

Scientific management (also called Taylorism or the Taylor system) is a theory of management that analyzes and synthesizes workflows, with the objective of improving labour productivity. The core ideas of the theory were developed by Frederick Winslow Taylor in the 1880s and 1890s, and were first published in his monographs, *Shop Management* (1905) and *The* *Principles of Scientific Management* (1911). Taylor believed that decisions based upon tradition and rules of thumb should be replaced by precise

procedures developed after careful study of an individual at work. Its application is contingent on a high level of managerial control over employee work practices.

Taylor was a foreman for the Midvale Steel Company in Philadelphia from 1878 to 1890. Early in his management career, Taylor observed that the workers under his supervision engaged in soldiering—the practice of deliberately working slower than one's capabilities. Because the management of Midvale Steel had little real knowledge about the jobs performed in the plant, the practice went mostly undetected.

Taylor rested his philosophy on four basic principles.

1. The development of a true science of management instead of rule of thumb so that the best method for performing each task could be determined.
2. The scientific selection of workers so that each worker's would be given responsibility for the task for which he or she was best suited.
3. The scientific education and development of workers.
4. Intimate friendly cooperation between management and labour.

Taylor contended that the success of these principles require “a complete mental revolution” on the part of management and labour. Rather than quarrel over profits both side should increase production, by so doing, he believed profits would rise to such an extent that labour have to fight over them. Employers to pay more productive workers higher rate than others. Using a “scientifically correct” rate that would benefit both the company and workers. Thus the workers were urged to surpass their previous performance

standards to earn more pay. Taylor called his plan the differential rate system. Taylor believed that management and labour had common interest in increasing productivity. Taylor based his management system on production line time studies.

* Instead of relying on traditional work methods, he analyzed and timed steel workers movements on a series of jobs.
* Using time study he broke each job down into its components and designed the quickest and best method of performing each component. In this way he established.

**Limitations of Scientific Management Theory**

Although Taylor's method led to dramatic increase in productivity and higher pay in number of instance. Workers and unions began to oppose his approach because they feared that working harder or faster would exhaust whatever work was available causing layoffs.

Individuals are different from each other the most efficient way of working for one person may be inefficient for another.

Moreover, Taylor's system clearly meant that time was of the essence. His critics objected to the speed up condition that placed undue pressure on employees to perform at faster and faster levels.

The emphasis on productivity and by extension profitability led some managers to exploit both the workers and customers. As a result more workers joined unions and thus reinforced a pattern of suspicious and mistrust that shaded labour relations for decades.

Scientific management practices led to improvements in the consistency and efficiency of workplace processes. However, scientific management practices were also criticized for making jobs more monotonous. Attempts by management to implement scientific management practices sometimes resulted in backlashes. Workers particularly resented the use of stopwatches.

**Human Relations Approach**

##### Elton mayo is considered as the father of human relation theory. This theory came as a reaction to the classical approach, which stressed on formal structure. The classical school neglected the human side and under emphasized on the socio-psychological aspect of organization. George Elton Mayo was in charge of certain experiments on human behavior carried out at the Hawthorne Works of the General Electric Company in Chicago between 1924 and 1927.His research findings have contributed to organization development in terms of human relations and motivation theory. What he found however was that work satisfaction depended to a large extent on the informal social pattern of the work group. Where norms of cooperation and higher output were established because of a feeling of importance, physical conditions or financial incentives had little motivational value. People will form work groups and this can be used by management to benefit the organization.

##### Findings of Human Relation Approach

##### **Work is a group activity.**

##### **The social world of the adult is primarily patterned about work activity.**

##### **The need for recognition, security and sense of belonging is more important in determining workers’ morale and productivity than the physical conditions under which he works.**

##### **A complaint is not necessarily an objective recital of facts; it is commonly a symptom manifesting disturbance of an individual’s status position.**

##### **The worker is a person whose attitudes and effectiveness are conditioned by social demands from both inside and outside the work plant.**

##### **Informal groups within the work plant exercise strong social controls over the work habits and attitudes of the individual worker.**

##### **The change from an established society in the home to an adaptive society in the work plant resulting from the use of new techniques tends continually to disrupt the social organization of a work plant and industry generally.**

##### **Group collaboration does not occur by accident; it must be planned and developed. If group collaboration is achieved the human relations within a work plant may reach a cohesion which resists the disrupting effects of adaptive society.**

**HAWTHORNE EXPERIMENTS**

The Hawthorne plant of the General Electric Company, Chicago, faces the problem of workers' dissatisfaction, although they provide material benefits to the workers' like pension schemes, sickness benefits and other recreation facilities which resultant into loss of production. Now, it became necessary a thorough investigation of the problem of low productivity and to find out the relationship between production and various factors of efficiency. To find out the relationship between productivity and working conditions a number of studies were conducted by Professor Elton Mayo and his researcher team which was started in 1927. **George Elton Mayo** (26 December 1880–7 September 1949) was an Australian psychologist, sociologist and organization theorist. He lectured at the University of Queensland from 1919 to 1923 before moving to the University of Pennsylvania, but spent most of his career at Harvard Business School (1926–1947), where he was professor of industrial research. The Hawthorne studies consist of five phases and each phase giving the answer to the question arises at the previous phase.

1. **Experiment on Illumination -** Under this experiment researcher tries to find out how varying levels of illumination affect the efficiency of workers'. The hypothesis was that, with higher illumination productivity increases. They divided workers' into two groups. One was test group, which were undergo environmental changes and second was control group. The members of the control group would work under normal, constant environment condition. The researchers began by manipulating the lighting of the test group. When lighting for the test group was increased, their productivity increased but the productivity of the control group increased, as well. This result was somewhat unexpected, since the lighting at the workstations of the control group had not been altered. The researchers then decreased the lighting at the test group's workstations. Surprisingly, both the test group and the control group continued to improve their productivity. There was no decrease in productivity until the light was reduced to the point where the workers could barely see. The researchers concluded that light did not have a significant impact on the motivation of production workers. This led General Electric, a light bulb manufacturer, to withdraw their funding.
2. **Relay Assembly Test Room Experiment** - In this experiment, researcher test the hypothesis that production would be higher if incentive system was improved, and work week become shorter with rest and lunch periods. For this purpose, the researcher set up a relay assembly test room and two experienced workers' were chosen. There experienced workers’ were asked to choose four girls as coworkers’. The work related to the assembly of telephone relay, “because it is simple and highly repetitive and require no machinery and permits an accurate measure of production” (Blum and Naylor, 1968).Each relay consisted of different part which should be assembled into finished product. The result depended on the speed, continuity and coordination among these workers’ and they are placed under the group piece rate system. One observer was associated with girls to supervise their work and they also consulted girls before any changes. The whole experiment latest from 1927–1932, and were spread over 14 periods in all and experiment started with numerous changes in sequence. Following were the change and their outcomes:
3. The incentive system was changed so that each girl’s extra pay was based on the group activities of all the members of the small group irrespective of large group.
4. With the increasing time of rest periods from five to ten minutes it resultant into increased productivity.
5. The time of rest period was reduced to again five minutes but the frequency of rest period increased. It leads to slightly low productivity and girls complained that frequent rest periods affected their flow of work.
6. Now the duration of rest periods become ten minutes and they should be only on morning and evening with serving some snacks or tea. It again shows increased productivity.
7. Certain changes in working day like on Sunday they announce the holiday. Also introduced flexible working hour like they were allowed to leave before time. Surprisingly, productivity increased.

As changes was introduced less supervision was required, girls morale increased and low absenteeism which no doubt increased productivity. But researcher decided to go back to the original position, with some other benefits. After that it was founded that productivity increased as earlier. The outcomes implied that productivity increase not because positive changes but because of changed attitude of the girls’ towards work and their work group. Girls were developed a sense of belongingness, responsibility, stability and self-discipline.

1. **Bank Wiring Observation Room Study** - The main objective of this study is to find out exact information about informal groups in plant and what are the factors or causes which influence output. A group of three kinds of workers’ were engaged in the bank wiring room: wiremen solder men and inspector, who together constituted a group of 14. The work involved step by step fixing of switches for central office equipment. The payment was based on a group performance; it would assume that for this reason they would help each other to produce more. But, workers' decided the target for themselves which was lower than the plant target. The workers' gave following reasons for restricted output (Prasad L.M., *Principles* & *Practice* *of Management*, 2002, p. 58):
2. Workers’ think that if they produce more per head, some of the workers’ would be retrenched.
3. Once they reach the target as compared to standard company raise the standard.
4. Workers’ form a social group so they know what are the responsibilities a workers' had for his family. If any worker not doing well he may be retrenched, by considering this reason faster workers protected them by not overproducing.

This study imposed that informal relationship are important factor in determining the human behaviour. Along with experiment workers' were counselled for developing and maintaining good human relation in the plant. The counselling emphasized on worker relationship with other workers', with the management, personal adjustment, satisfaction, motivation and many more aspects.

1. **Personnel Counselling Programme** – According to Blum, “This study may be regarded as the culmination of the researchers’ effort to bring the idea of interpersonal relationship between the workers and boss.” The counselling programme developed after the bank wiring observation experiment. It had two-fold objectives:
2. A non-authoritative interview to find out the problems of the workers and to know their attitude towards their work and their supervisor.
3. To improve the method of communication within the company, in view of the ample evidence indicating that it was lacking in certain situations especially when the social organization conflicted with managerial organization.

With these objectives, the decision was made that officials from the personnel department would be assigned to different departments and would be free to talk to the employees. This programme led to the improvement in the following three fields:

* Personnel adjustment
* Supervisor employee relationship
* Employee management relationship.

Employee showed freedom from anxiety and other forms of behaviour that might be diagnosed as psychoneurosis. Thus, proper understanding is required on the part of the supervisor so that policies could be formulated which would result in less friction between management and workers. This could also be possible through personnel counselling programme.

1. **Mass Interviewing Programme -** The objective of this experiment is to find out the employees attitudes towards supervisor, company, wages, facilities, promotion, morale etc. and this can be done by mass interview programme. These interviews were conducted by the means of direct and then after indirect questions. The major findings of the mass interview programme are:
2. A worker is satisfied or dissatisfied, not in terms of any objective forms of reference but rather in terms of how he regards his social status and what he feels he is entitled to receive by way of rewards.(Brown, J.A.C., *The Social Psychology of Industry*, Pelican Books, p.79)
3. In "non-directive" interviews, the interviewer pretends that whatever information they get from workers' were treated as confidential. They trained to listen more and to talk less; they are offering advice in respect of arguments.
4. The complaints generally involved an employees' social position in the group in which he worked.

From the mass interview programme, it was discovered that employees' behaviour was being influenced by group behaviour. This result was not very satisfactory and researchers decided to conduct another experiment.

**INDUSTRIAL PSYCHOLOGY: UNIT-2**

### 2.1 INDIVIDUAL IN WORKPLACE

* **Extrinsic motivation** is related to ‘tangible’ rewards such as salary and fringe benefits, security, promotion, contract of service, the work environment and conditions of work.
* **Intrinsic motivation** is related to ‘psychological’ rewards such as the opportunity to use one’s ability, a sense of challenge and achievement, receiving appreciation, positive recognition and being treated in a caring and considerate manner.

### 2.2 MOTIVATION AND JOB SATISFACTION

Motivation is the psychological processes that cause the stimulation direction, and determination of voluntary actions that are goal directed.



**Definition of Motivation**

* “Motivation is something that moves a person to action, and continues him in the course of action already initiated”.
* Acc. to Robert Dubin, “Motivation is the complex set of forces starting and keeping a person at work in an organisation”.

**Theories of Motivation**

1. **Content theories** attempt to explain those specific things that actually motivate the individual at work. These theories are concerned with identifying people’s needs and their relative strengths, and the goals they pursue in order to satisfy these needs. Content theories place emphasis on the nature of needs and what motivates. For examples **Maslow, Alderfer, Herzberg and McClelland**.
2. **Process theories** attempt to identify the relationship among the dynamic variables that make up motivation. These theories are concerned more with how behaviour is initiated, directed and sustained. Process theories place emphasis on the actual process of motivation. For examples **Expectancy Theory, Equity theory, Goal theory, Attribution Theory.**

**(I) MASLOW’S HIERARCHY OF NEEDS THEORY**

1. **Physiological needs**. These include homeostasis (the body’s automatic efforts to retain normal functioning) such as satisfaction of hunger and thirst, the need for oxygen and to maintain temperature regulation. Also sleep, sensory pleasures, activity, maternal behaviour and, arguably, sexual desire.
2. **Safety needs**. These include safety and security, freedom from pain or threat of physical attack, protection from danger or deprivation, the need for predictability and orderliness.
3. **Social needs:** These include affection, sense of belonging, social activities, friendships, and both the giving and receiving of love.
4. **Esteem needs** (sometimes referred to as ego needs). These include both self-respect and the esteem of others. Self-respect involves the desire for confidence, strength, independence and freedom, and achievement. Esteem of others involves reputation or prestige, status, recognition, attention and appreciation.
5. **Self-actualization needs**. This is the development and realization of one’s full potential. Maslow sees this as ‘What humans can be, they must be’ or ‘becoming everything that one is capable of becoming’. Self-actualization needs are not necessarily a creative urge and may take many forms which vary widely from one individual to another.



**(II) ALDERFER’S MODIFIED NEED HIERARCHY MODEL (ERG theory)**

A modified need hierarchy model has been presented by Maslow. This model condensesMaslow’s five levels of need into only three levels based on the core needs of Existence,Relatedness and Growth (ERG theory)

* **Existence needs** are concerned with sustaining human existence and survival and cover physiological and safety needs of a material nature.
* **Relatedness needs** are concerned with relationships to the social environment and cover love or belonging, affiliation and meaningful interpersonal relationships of a safety or esteem nature.
* **Growth needs** are concerned with the development of potential and cover self-esteem and self-actualization.

**(III) HERZBERG’S TWO-FACTOR THEORY**

The two-factor theory states that there are certain factors in the workplace that cause job satisfaction, while a separate set of factors cause dissatisfaction.

Two-factor theory distinguishes between:

**The Two Factors inthe Theory**

1. **Hygiene factors**are needed to ensure that an employee does not become dissatisfied. They do not cause higher levels of motivation, but without them there is dissatisfaction.
2. **Motivation factors**are needed in order to motivate an employee into higher performance. These factors result from internal generators in employees.

**Typical Hygiene Factors**

* Working conditions; Quality of supervision; Salary
* Status; Safety; Company; Job
* Company policies and administration
* Interpersonal relations

**Typical Motivation Factors**

* Achievement; Recognition for achievement
* Responsibility for task; Interesting job
* Advancement to higher level tasks; Growth

**Combining the hygiene and motivation factors results in four scenarios**

1. **High Hygiene + High Motivation**: The ideal situation where employees are highly motivated and have few complaints.
2. **High Hygiene + Low Motivation**: Employees have few complaints but are not highly motivated. The job is perceived as a paycheck.
3. **Low Hygiene + High Motivation**: Employees are motivated but have a lot of complaints. A situation where the job is exciting and challenging. However the salaries and work conditions are not OK.
4. **Low Hygiene + Low Motivation**: The worst situation. Employees are not motivated and have lots of complaints

**(IV) VROOM’S EXPECTANCY THEORY**

The Expectancy Theory (ET) of Victor Vroom deals with motivation and management. Vroom's theory assumes that behavior results from conscious choices among alternatives whose purpose it is to maximize pleasure and minimize pain.*Vroom* was the first person to propose an expectancy theory aimed specifically at workmotivation.His model is based on three key variables: **valence, instrumentality** and**expectancy.**

**M** = **E** x **I** x **V**

**Motivational Force (MF) = Expectancy x Instrumentality x Valence**

**1. Expectancy: Effort → Performance (E→P):** Expectancy is the belief that one's effort (E) will result in attainment of desired performance (P) goals.

1. ***Self-efficacy***- the person’s belief about their ability to successfully perform a particular behavior. The individual will assess whether they have the required skills or knowledge desired to achieve their goals.
2. ***Goal difficulty***- when goals are set too high or performance expectations that are made too difficult. This will most likely lead to low expectancy. This occurs when the individual believes that their desired results are unattainable.
3. ***Perceived control*** - Individuals must believe that they have some degree of control over the expected outcome. When individuals perceive that the outcome is beyond their ability to influence, expectancy, and thus motivation, is low.

**2. Valence (**Reward Preference= Emotions**):** The feeling about specific outcomes is termed **valence (**Emotions**).** This is the attractiveness of, or preference for, a particular outcome to the individual**.**Valence is the anticipated satisfaction from an outcome.The valence refers to the value the individual personally places on the rewards. -1 to +1; **-1= avoiding the outcome**

**0 = indifferent to the outcome**

**+1 = welcomes the outcome**

In order for the valence to be positive, the person must prefer attaining the outcome to not attaining it.

1. **Instrumentality: Performance → Outcome (P→O):** Instrumentality is the belief that a person will receive a reward if the performance expectation is met. This reward may present itself in the form of a pay increase, promotion, recognition or sense of accomplishment. Instrumentality is low when the reward is the same for all performances given.

**(V) THEORY X & THEORY Y (McGregor’s Motivational Theory)**

Douglas McGregor studied these questions and proposed two different views of employee motivation in his 1960 book '**The Human Side of Enterprise**'. These views are known as Theory X and Theory Y.

Theory X stresses the importance of strict supervision, external rewards, and penalties: in contrast, Theory Y highlights the motivating role of job satisfaction and encourages workers to approach tasks without direct supervision.

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| **Comparisons Between Theory X and Theory Y** |
| **Theory X****(Lower Level Management)** | **Theory Y****(Upper Level Management)** |
| 1. Humans inherently dislike working and try to avoid work.
2. Because people dislike work, they have to be made to work by putting pressure and controlling their activities closely.
3. An average person prefers to be directed by others.
4. Average people avoid taking responsibility.
5. Average people are unambitious and prefer security at work
 | 1. Work is an activity as natural to people as play and rest.
2. When suitably motivated people are self-directed to achieve organizational objectives.
3. Commitment of employees can be obtained by ensuring job satisfaction for them
4. People learn to accept responsibility and under suitable conditions actively seek responsibility.
5. People are imaginative and creative.
 |

**JOB SATISFACTION:**

The term ‘job satisfaction’ is commonly used in the context of human behaviour at work.In the words of Feldman and Arnold, “job satisfaction is the amounts of overall positive effect feelings that individual have towards their job”.

**Job satisfaction**: is a set of favorable or unfavorable feelings and emotions with which employees view their work. Job satisfaction is an affective attitude a feeling of relative like or dislike toward something.

**DETERMINANTS OF JOB SATISFACTION:**

* Nature of job
* Nature of supervision
* Working conditions
* Opportunities of promotion
* Work-group
* Employee morale.

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| --- | --- | --- |
| **Basis For Comparison** | **Job Enlargement** | **Job Enrichment** |
| Meaning | **Job Enlargement** means enlarging the scope of the job by adding the similar tasks without enhancing responsibility. | A management tool used to motivate employees, by adding responsibilities in the job is known as Job Enrichment. It is more challenging and less repetitive work. |
| Concept | Quantitatively expanding the scope of a job. | Qualitatively extending the range of activities performed by a job. |
| Objective | To decreases the boredom in performing a redundant task. | To make the job more challenging, interesting and creative. |
| Expansion | Horizontal | Vertical |
| Supervision | More | Comparatively less |

### 2.3 STRESS MANAGEMENT

**What is Stress?**

“Stress is the emotional and physical strain caused by our response to pressure from the outside world.”

**Stress is also:**

* A necessary part of our daily lives.
* Defined as anything that stimulates us to act, think, or react.
* Simple or extreme.
* Necessary in order to force us to accomplish certain tasks.
* Without stress, our bodies wouldn't react at all, even in times of extreme danger.

**What is Employee Stress?**

**Employees stress** is a growing concern for organizations today. Stress can be defined as a lively circumstance in which people face constraints, opportunities, or loss of something they desire and for which the consequence is both unpredictable as well as crucial. Stress is the response of people to the unreasonable/excessive pressure or demands placed on them.

**Symptoms of Stress**

Some of the symptoms of stress at workplace are as follows-

* Absenteeism, escaping from work responsibilities, arriving late, leaving early, etc.
* Deterioration in work performance, more of error prone work, memory loss, etc.
* Cribbing, over-reacting, arguing, getting irritated, anxiety, etc.
* Deteriorating health, more of accidents, etc.
* Improper eating habits (over-eating or under-eating), excessive smoking and drinking, sleeplessness, etc.

**High levels of stress in the workplace can lead to**:

* Poor decision-making.
* An increase in mistakes which in turn may lead to more customer or client complaints. This in turn is likely to produce more stress.
* Increased sickness and absence.
* High staff turnover.
* Poor employee/work place relations.

**SOURCES/CAUSES OF STRESS**

The factors leading to stress among individual are called as stressors. Some of the factors/stressors acting on employees are-

**1. Organizational factors**: With the growth in organizational stress and complexity, there is increase in organizational factors also which cause stress among employees. Some of such factors are-

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| --- | --- |
| * Discrimination in pay/salary structure
* Strict rules and regulations
* Ineffective communication
* Peer pressure
* Goals conflicts/goals ambiguity
 | * More of centralized and formal organization structure
* Less promotional opportunities
* Lack of employees participation in decision-making
* Excessive control over the employees by the managers
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**2. Individual factors:** There are various expectations which the family-members, peer, superior and subordinates have from the employee. Failure to understand such expectations or to convey such expectations lead to role ambiguity/role conflict which in turn causes employee stress. Other individual factors causing stress among employees are inherent personality traits such as being impatient, aggressive, rigid, feeling time pressure always, etc. Similarly, the family issues, personal financial problems, sudden career changes all lead to stress.

**3. Job concerning factors**: Certain factors related to job which cause stress among employees are as follows-

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| --- | --- |
| * Monotonous nature of job
* Unsafe and unhealthy working conditions
 | * Lack of confidentiality
* Crowding
 |

1. **Extra-organizational factors**: There are certain issues outside the organization which lead to stress among employees. In today’s modern and technology savvy world, stress has increased. Inflation, technological change, social responsibilities and rapid social changes are other extra-organizational factors causing stress.

**STRATEGIES FOR MANAGING STRESS**

Stress experienced by the employees in their job has negative impact on their health, performance and their behaviour in the organization. Thus, stress needs to be managed effectively so as to set off these harmful consequences. Strategies for managing stress are as follows-

1. **Organizational strategies for managing stress**

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| 1. Encouraging more of organizational communication with the employees so that there is no role ambiguity/conflict.
2. Effective communication can also change employee views. Managers can use better signs and symbols which are not misinterpreted by the employees.
3. Encourage employees’ participation in decision-making. This will reduce role stress.
4. Grant the employees greater independence, meaningful and timely feedback, and greater responsibility.
 | 1. The organizational goals should be realistic, stimulating and particular. The employees must be given feedback on how well they are heading towards these goals.
2. Encourage decentralization.
3. Have a fair and just distribution of incentives and salary structure.
4. Promote job rotation and job enrichment.
5. Create a just and safe working environment.
6. Have effective hiring and orientation procedure.
 |

1. **Individual strategies for managing stress**
2. The employees should make a “to-do” list daily, prioritize the acts in the list and plan the acts accordingly. Take regular breaks during work to relax you. By effective time management, the employees can achieve their targets timely and can meet work pressures and, thus, avoid stress.
3. Do hard work. Strive to achieve your goals but do not do it to the harm of family, health, or peer.
4. Indulge in physical exercises. It helps in effective blood circulation, keeps you fit, diverts mind from work pressures.
5. Encourage a healthy lifestyle. Take a regular sleep, have plenty of water, have healthy eating habits. Promote relaxation techniques such as yoga, listening music and meditation.
6. The employees should have emotional intelligence at workplace. They should have self-awareness, self-confidence and self-control at workplace.

Employee counseling is a very good strategy to overcome employee stress. Through counseling, employees can become aware of their strengths and how to develop those strengths; their weaknesses and how to eliminate them; and they can develop strategies for changing their behaviour.

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| **Type A** | **Type B** |
|

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| --- |
| 1. They enjoy achievement of goals, with greater enjoyment in achieving of more difficult goals. They are thus constantly working hard to achieve these.
2. They find it difficult to stop, even when they have achieved goals.
3. They feel the pressure of time, constantly working flat out.
4. They are highly competitive and will, if necessary create competition.
5. They hate failure and will work hard to avoid it.
6. They are generally pretty fit and often well-educated (a result of their anxiety).
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| 1. They work steadily, enjoying achievements but not becoming stressed when they are not achieved.
2. When faced with competition, they do not mind losing and either enjoy the game or back down.
3. They may be creative and enjoy exploring ideas and concepts.
4. They are often reflective, thinking about the outer and inner worlds.
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1. They are even-tempered.
2. They typically live less stressful lives.
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### 2.4 ORGANIZATION CULTURE

**Organisational culture** is the totality of beliefs, customs, traditions, and values shared by the members of the organisation, which governs how people behave in organizations. These shared values have a strong influence on the people in the**organization**and dictate how they dress, act, and perform their jobs.

**Organizational culture** encompasses values and behaviors that "contribute to the unique social and psychological environment of an organization."

**Factors and elements which affects Organizational Culture:**

|  |  |
| --- | --- |
| 1. Individual Autonomy
2. Position Structure
3. Reward Orientation
4. Task Orientation
 | 1. Relations Orientation or Consideration
2. Job Satisfaction
3. Morale
 |

These elements may overlap. Work environments reinforce culture on a daily basis by encouraging employees to exercise cultural values. Organizational culture is shaped by multiple factors, including the following:

* External environment
* Industry
* Size and nature of the organization's workforce
* Technologies the organization

uses

* The organization's history and

Ownership

**Types of Organisational Culture**

1. **Normative Culture:** In such a culture, the norms and procedures of the organization are predefined and the rules and regulations are set as per the existing guidelines.
2. **Pragmatic Culture:** Customer satisfaction is the main motive of the employees in a pragmatic culture.
3. **Academy Culture: H**ire skilled individuals,the roles and responsibilities are delegated according to the back ground, educational qualification and work experience of the employees.
4. **Baseball team Culture:** Advertising agencies, event management companies, financial institutions follow such a culture.
5. **Club Culture:** The high potential employees are promoted suitably and appraisals are a regular feature of such a culture.
6. **Fortress Culture:** There are certain organizations where the employees are not very sure about their career and longevity. Stock broking industries follow such a culture.
7. **Tough Guy Culture:** In a tough guy culture, feedbacks are essential. The employees are under constant watch in such a culture.
8. **Bet your company Culture:** Organizations which follow best your company culture take decisions which involve a huge amount of risk and the consequences are also unforeseen.
9. **Process Culture:** As the name suggests the employees in such a culture adhere to the processes and procedures of the organization. All government organizations follow such a culture.

### 2.5 LEADERSHIP

Leadership is the action of leading a group of people or an organization, or the ability to do this.Leadership involves:

1. establishing a clear vision,
2. sharing that vision with others so that they will follow willingly,
3. providing the information, knowledge and methods to realize that vision, and
4. Coordinating and balancing the conflicting interests of all members and stakeholders.

A leader steps up in times of crisis, and is able to think and act creatively in difficult situations.

**LEADERSHIP TRAITS (Characteristics of a good leader)**

The traits of an effective leader include the following:

1. **Emotional stability**. Good leaders must be able to tolerate frustration and stress.
2. **Dominance**. Leaders are often times competitive and decisive and usually enjoy overcoming obstacles.
3. **Enthusiasm**. Leaders are usually seen as active, expressive, and energetic. They are often very optimistic and open to change.
4. **Tough-mindedness**. Good leaders are practical, logical, and to-the-point.
5. **High energy**. Long hours and some travel are usually a prerequisite for leadership positions, especially as your company grows.
6. **Maturity**.Maturity is based on recognizing that more can be accomplished by empowering others than can be by ruling others.
7. **Charisma**. People usually perceive leaders as larger than life. Charisma plays a large part in this perception.

**THEORIES OF LEADERSHIP:**

1. **Trait Theory**: Individual characteristics of leaders are different than those of non-leaders.
2. **Behavioral Theories**: The behaviors of effective leaders are different than the behaviors of ineffective leaders. Two major classes of leader behavior are task-oriented behavior and relationship-oriented behavior.
3. **Participative Leadership**: This is a leadership theory in which the leader works closely with team members, focusing on building relationships and rapport.
4. **Situational Leadership**: On the basis of situation the capacity to set high but attainable goals, willingness and ability to take responsibility for the task, and relevant education and/or experience of an individual or a group for the task.
5. **Contingency Theories**: Factors unique to each situation determine whether specific leader characteristics and behaviors will be effective.
6. **Transactional Leadership**: Transactional leadership, also known as managerial leadership, focuses on the role of supervision, organization, and group performance; transactional leadership is a style of leadership in which the leader promotes compliance of his/her followers through both rewards and punishments.
7. **Transformational Leadership**: Transformational leadership is a style of leadership where the leader works with employees to identify the needed change, creating a vision to guide the change through inspiration, and executing the change in tandem with committed members of the group.

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| **BASIS FOR COMPARISON** | **TRANSACTIONAL LEADERSHIP** | **TRANSFORMATIONAL LEADERSHIP** |
| Meaning | A leadership style that employs rewards and punishments for motivating followers is Transactional Leadership. | A leadership style in which the leader employs charisma and enthusiasm to inspire his followers is Transformational Leadership. |
| Concept | Leader lays emphasis on his relation with followers. | Leader lays emphasis on the values, ideals, morals and needs of the followers. |
| Works for | Developing the existing organizational culture. | Changing the existing organizational culture. |
| Style | Bureaucratic | Charismatic |
| Focused on | Planning and Execution | Innovation |

**LEADERSHIP STYLES**

**1. Authoritarian**

The authoritarian leadership style keep main emphasis on the distinction of the authoritarian leader and their followers, these types of leaders make sure to only create a distinct professional relationship. Direct supervision is what they believe to be key in maintaining a successful environment and followership.

**2. Democratic**

The democratic leadership style consists of the leader sharing the decision-making abilities with group members by promoting the interests of the group members and by practicing social equality.

**3. Laissez-faire**

The laissez-faire leadership style is where all the rights and power to make decisions is fully given to the worker.This is an effective style to use when:

* Followers are highly skilled, experienced, and educated.
* Followers have pride in their work and the drive to do it successfully on their own.
* Outside experts, such as staff specialists or consultants are being used.
* Followers are trustworthy and experienced.



### 2.6 GROUP DYNAMICS

**Group dynamics**is a system of behaviour and psychological processes occurring within a social**group**(intragroup**dynamics**), or between social**groups**(intergroup**dynamics**).

The study of group dynamics can be useful in understanding decision-making behavior, tracking the spread of diseases in society, creating effective therapy techniques, and following the emergence and popularity of new ideas and technologies.

**GROUP:** A group is a collection of two or more people who have a common goal and interact with each other to accomplish their goal, are aware of one another and perceive themselves to be a part of the group.

**Characteristics of a Group**

1. Interaction between members
2. Awareness
3. Group perception
4. Common objectives

**TYPES OF GROUPS IN AN ORGANISATION**

**1. Small and Large Groups**

The smaller the group, the greater is the likelihood of close relationships, full participation, and consonance of aims.The larger the group, the greater is the pool of talent and experience available for solving problems or sharing the effort.It is a collection of a few small groups.

**2. Formal and Informal Groups**

Groups are majorly divided into two categories; first one is the formal groups, which are formed by the organization, to fulfill a task. The other one is an informal group, formed by the employees as per their likes, interests and attitudes.

**3. Primary and Secondary Groups**

A primary group is typically a small social group whose members share close, personal, enduring relationships. Examples include family, childhood friends, and highly influential social groups.People in a secondary group interact on a less personal level than in a primary group, and their relationships are temporary rather than long lasting.Examples of these would be employment, vendor-to-client relationships, etc.

**GROUP COHESIVENESS**

**Group cohesiveness**can be defined as a bond that pulls people toward membership in a particular group and resists separation from that group. In addition, group cohesion generally has three characteristics. They include the following:

1. **Interpersonal Attraction:** This means group members have a preference or want to interact with each other. Group members enjoy this interaction and seek it out.
2. **Group Pride:** This involves group members viewing their membership to a specific group with fondness. They feel proud of their group membership, and staying in the group feels valuable.
3. **Commitment to the Work of the Group:** Group members value the work of the group and believe in its goals. They are willing to work together to complete tasks which are aligned with these group goals, even through adversity.

Although cohesion is a multi-faceted process, it can be broken down into four main components: social relations, task relations, perceived unity, and emotions.

Members of strongly cohesive groups are more inclined to participate readily and to stay with the group. Cohesion can be more specifically defined as the tendency for a group to be in unity while working towards a goal or to satisfy the emotional needs of its members.

**FACTORS INFLUENCING GROUP COHESIVENESS**

Group size, degree of dependency, physical distances, time spent together, severity of initiation, cooperation, threat history of past successes are the major factors. These factors are influencing the group cohesiveness in an organization. We shall discuss about the above factors below:

1. Group size
2. Degree of Dependency
3. Physical Distance
4. Time spent Together
5. Severity of Initiation
6. Cooperation
7. Status
8. Threat
9. History of Past Successes

**INDUSTRIAL PSYCHOLOGY: UNIT-3**

**WORK ENVIRONMENT**

Work environment is designed to establish and maintain physical conditions that allow workers' to concentrate on their work without any disturbance. These disturbances may be arising from the noise of the machines, improper ventilation, humidity and temperature of workplace, inadequate facility of drinking water and other amenities. Unfavourable working conditions slowdown the workers' activities and production process also. They increase the problem of absenteeism, turnover, and grievance and generally contribute to inefficiency. There is no doubt that people generally prefer delightful to distasteful environment and that when attention is paid to creating a favourable working environment, as well as to actual job performance methods, overall niceness prevails. Working conditions has to ensure that it complies with all applicable laws and regulations. In India, the **Factories Act 1948** is enacted primarily with the object to regulate the conditions of work in manufacturing establishments coming within the definition of term 'Factory' as used in the Act. According to Factories Act 19481, Chapter 3 deals with the 'health of the workers' with reference to such matters as cleanliness, disposal of wastes and effluents, ventilations, dust and fume, artificial humidification, overcrowding, lighting, drinking water, latrines and urinals and spittoons.

**REQUIREMENT OF SUITABLE WORKING ENVIRONMENT**

Are the factories requiring suitable working condition for their workers'? Production is increased with adequate working conditions? Workers' efficiency increased if working environment is pleasant? All such questions to be answered by the quotation: ‘*The quality of employees will be directly proportional* *to the quality of life you maintain for them*’ —***Charles E. Bryan.***

In the factories like low illuminations which resultant into eye strain, headache, fatigue, increased number of accident, low quality of work, low output which also create low morale and satisfaction among the workers. These changes also affect the social climate of the factory. With better working conditions workers' feel that something is being done for them. This provides psychological satisfaction which helps in to maintain congenial environment with increased efficiency. Therefore, suitable working condition is required for high production.

In short,

* For higher production.
* For higher efficiency of workers'.
* Increased morale and satisfaction.
* Reduce boredom and monotony.
* Reduce fatigue.
* Better communication between the workers' itself and with the management.
* Encourage innovations.
* Reduce absenteeism and turnover.
* Reduce accident proneness.
* Provide healthy environment and many more.

**INDUSTRIAL FATIGUE**

Fatigue of workers is a complex phenomenon resulting from various factors in technically innovated modern industries, and it appears as a feeling of exhaustion, lowering of physiological functions, breakdown of autonomic nervous balance, and decrease in work efficiency. On the other hand industrial fatigue is caused by excessive workload, remarkable alteration in posture and diurnal and nocturnal rhythms in daily life.

Fatigue can be a symptom of a medical problem, but more commonly it is a normal physiological reaction to exertion, lack of sleep, boredom, changes to sleep-wake schedules, or stress. Fatigue, also known as weariness, tiredness, exhaustion, or lethargy, is generally defined as a feeling of lack of energy. Fatigue is not the same as drowsiness, but the desire to sleep may accompany fatigue. Apathy is a feeling of indifference that may accompany fatigue or exist independently.

**Gilbreth (1911)** holds the view that due to unsatisfactory and unsuitable working conditions, fatigue is caused and hence there is a daily loss of 20% workers due to decrease in production. Adverse effect is also found in the individuals and on the welfare of the society. Health of Munitions Workers Committee defined fatigue as “the sum of the results of activity which show themselves in a diminished capacity for doing work”.

**Muscio (1921)** defines fatigue as “a condition caused by activity in which output produced by that activity tends to be relatively poor and the degree of fatigue tends to vary directly with the poorness of output”. Muscio, however, is not satisfied with this definition because fatigue cannot be directly measured and because diminished output may also be cause of distraction. The most accepted definition of fatigue is “reduction in the ability to do work caused by changing in the chemical and psychological level”.

**According to British Association Committee** fatigue is “diminution of the capacity for work which follows excess of work or lack of rest and which is recognized on the subjective side by a characteristic malaise”.

**According to Viteles**, “tension, speed, subjection to specification of work and a decrease in the enjoyment of work leads to fatigue”.

**According to business directory**, “employee burnout characterized by physical or emotional exhaustion, resulting in lowered job productivity and performance. The employee becomes tired of doing the job, which results in poor motivation. The fatigue may be caused by such factors as understaffing, unpleasant surroundings, and high pressure”.

In an intensive study called “Fatigue and hours of service of interstate truck drivers” (1941) the term fatigue is defined as an altered psychological and physiological state in relation to the states of recovery or normal capacity.

‘Fatigue is caused by length or intensity of some activity in a gainful occupation’, defined by **Maier (1970)**.

Fatigue is a widely used term related to a physiological and psychological state. Although it is given as a synonym for drowsiness and tiredness it is often mistakenly associated with sleepiness. Both, fatigue and sleepiness are characterized by a decrease in memory, reaction time, information processing, decision-making and vigilance, but one can be fatigued without being sleepy.

Fatigue is considered an internal precondition for unsafe acts because it negatively affects the human operator’s internal state. Research has generally focused on pilots, truck drivers, and shift workers.

**TYPES OF INDUSTRIAL FATIGUE**

Fatigue can be both physiological and psychological.

1. Physiological fatigue is the inability to continue functioning at the level of one’s normal abilities. A person with physiological fatigue cannot lift as heavy a box or walk as far as he could if not fatigued. Muscular fatigue resulting from prolonged physical work, are the example.
2. Psychological, on the other hand, rather manifests in sleepiness or slowness. A person with psychological fatigue may fall asleep, may react very slowly, or may be inattentive. With micro sleeps, the person may be unaware that he was asleep. Sensory (degradation of sensory perception) and cognitive fatigue, or alertness, intellectual fatigue are the examples of psychological fatigue.

Fatigue also differentiated by acute and cumulative fatigue:

* Acute fatigue is experienced perhaps at the end of a long day, and
* Fatigue where you may still feel tired even after a night’s sleep this comes under cumulative fatigue.

‘Acute fatigue’ has been recently explored by Jansen, Kant and van den Brandt (2002). They looked at the relationship between the need for recovery from work, prolonged fatigue and psychological distress in a large sample (N = 12,095) from the Netherlands. They conceptualized need for recovery as the “*need to recuperate from work-induced fatigue, primarily experienced* *after a day of work*.” They found that the need for recovery was a separate concept from prolonged fatigue. Konz (1998a) recognizes that fatigue is likely to be related to long daily work hours especially if there is a lack of sleep; whereas occasionally, it will be due to long weekly work hours (cumulative fatigue). Many of the studies that we consider in this review use weekly working hours as their measure of ‘long hours’ and not daily hours. This means that cumulative fatigue may well be being measured as opposed to acute fatigue.

**WHY DO WE GET FATIGUED?**

Despite the absence of an agreed scientific definition, there has still been research on fatigue. Rogers et al. (1999) note that several different mechanisms can contribute to how fatigued an individual is, for example, loss of sleep, length of working hours, age, health status, general sleep quality, experience at work and motivation and home/family life and responsibilities and commuting times.

For example, a recent article (DeFrank, Konopaske and Ivancevich, 2000) discusses ‘travel stress’ and notes the many ways that “executives” may be fatigued through business travel. These include missing out on good quality sleep because of unfamiliar or noisy hotels, or working late to complete jobs before departing on a business trip. For Konz (1998), one of the main reasons that people become fatigued is insufficient rest. This can result from working at the wrong time (shift work) or working too many hours. He suggests that prolonged overtime of over 12 hours a day and 55 hours a week should be avoided. He also alerts us to the fact that an individual will have less of a chance of getting sufficient sleep if a long working day is extended by a long commute or moonlighting (working a second job). In addition, he notes that fatigue can occur for other reasons, for example:

* Too much, or too little stimulation at work.
* A large fatigue dose i.e., through too intensive work and not enough chance to rest.
* Lack of opportunity for different work tasks.
* Not taking sufficient short breaks while at work (fatigue increases exponentially with time).
* Having insufficient time to recover from fatigue. For Konz, long-term fatigue occurs when fatigue is carried over into the next day.

In conclusion, there are many different factors that may affect how fatigued an individual may become. Factors that are directly related to long hours include spending too much time doing work tasks and being exposed to ‘stressors’ in the work environment, and missing out on sufficient sleep due to long work hours.

**FATIGUE SYMPTOMS**

Some of the common fatigue symptoms are following:

1. Weakness, lack of energy, tiredness, exhaustion
2. Passing out or feeling as if you are going to pass out
3. Palpitations (feeling your heart beating)
4. Dizziness
5. Vertigo is the feeling that you or your environment is moving or spinning. It differs from dizziness in that vertigo describes an illusion of movement. When you feel as if you yourself are moving, it’s called subjective vertigo, and the perception that your surroundings are moving is called objective vertigo.
6. Shortness of breath

**CAUSES AND REMEDIES OF INDUSTRIAL FATIGUE**

1. Industrial fatigue may be occurring by unfavourable or unsatisfactory work environment. Unsatisfactory or unfavourable work environment include improper facility of illumination, ventilation, humidity, tempera- ture and problem of noise. All these factors lead to headache, eye strain and some time irritation and weakness. For minimizing these influences on the work, employers must take care of the factory layout.
2. Long working hour also gives support to industrial fatigue. Long working hours can lead to stress or mental ill health, decreased production, rate of accident also increases. The remedy for avoiding fatigue is simple to regulate the laws regarding working hour.
3. When machine are designed only taking consideration of work not worker who perform the task on that machine. Not stress on the comfort and ease to perform the task then it leads to a problem like workers’ do unnecessary work and also it leads to extra expenditure of energy or effort. This comes out in the form of fatigue. To remove unnecessary fatigue, machines should be constructed (improving the design of machine) in such a way that workers would feel comfortable while doing work. One of the best method to minimize fatigue from bad design of machine by practicing time and motion study where wrong, unnecessary and useless movements should be avoided and productivity automatically increases.
4. Inadequate rest periods also cause of industrial fatigue. Most of the studies suggest that frequent short rest intervals look like to be more effective than a few longer ones. Too long rest intervals may create disturbance and also workers loses the continuity of the work or gets out of the mood for it. The solution for this problem is to introduce rest periods in between working hours should be depending upon the nature of the work.
5. Physical and mental health also causes the fatigue in workplace. In the case of a physically weak worker there is quick onset of fatigue compared to healthy worker. Emotional disturbance in work place as well as outside the work place, lack of adjustment with surrounding, domestic problem and many more may consume a lot of energy which cause fatigue as a result of mental illness. Therefore, employer provides free medical facilities and also ensures that their workers are aware about the health problems and remedy for the same. For overcome the mental illness workers should be given proper counseling and guidance for a healthy and tension free mental life.

**EFFECTS OF INDUSTRIAL FATIGUE**

1. Reduced performance and productivity in the workplace.
2. Increase the possibility of absenteeism and turnover.
3. Increase the risk of accidents and injuries occurring.
4. Ability to think clearly.
5. Headache, eye strain, muscular pain etc.
6. Lack of concentration.
7. Irritability, anxiety etc.
8. Poor judgments.
9. Reduced capacity for effective interpersonal communication.
10. Fatigue and irregular sleeping habit disrupt circulation rhythms.
11. Lack of sleep cause heart disease, high blood pressure, stomach infection, diabetes, depression, asthma and many more.
12. Women’s reproductive health can also be affected by fatigue like increased risk of miscarriage, low birth weigh, higher occurrence of premature birth.

**INDUSTRIAL BOREDOM**

Boredom is commonly referred to as mental fatigue or psychological fatigue which leads to work decrement. Boredom is often associated with jobs that are repetitive. It is usually associated with work that is basically uninteresting to the workers who perform that particular task.

**According to Maier (1970)**, “It is claimed that repetitive work makes robots of men and that it destroys such human values as pride in workmanship and individuality”.

Boredom is an emotional state experienced during periods lacking activity or when individuals are uninterested in the activities presented to them. The first record of the word boredom is in the novel Bleak by Charles Dickens, written in 1852, in which it appears six times, although the expression *to be a bore* had been used in the sense of “to be tiresome or dull” since 1768.

Boredom is a condition characterized by perception of one’s environment as dull, tedious, and lacking in stimulation. This can result from leisure and a lack of aesthetic interests.

Boredom has been defined by **C.D. Fisher** in terms of its central psychological processes: “an unpleasant, transient affective state in which the individual feels a pervasive lack of interest in and difficulty concentrating on the current activity.”

**M. R. Leary** and others describe boredom as “an affective experience associated with cognitive attention processes.”

**CAUSES AND REMEDIES OF BOREDOM**

1. **Repetitive Nature of Work:** Boredom caused by repetitive work. When workers do the same job over prolonged period of time, then the chance of being bored from that particular work is on high. It is true fact that, when the work repeated it becomes machine like and require no logical work, attention, concentration on the part of the worker which resultant into boredom. The best method to overcome the boredom at this stage is ‘job rotation’ or exchange of jobs. By this worker become more attentive, they concentrate of new task which automatically encourage them to do work. In a study by Wyatt (1929) some people were engaged in cutting cigarette papers and making cigarette alternatively, at an interval of 1 ½ hours. Their performance was better than those who were engaged in either of the tasks for the tasks for the whole day. Maier (1970) found that because of exchange of the jobs improvement in work was noticed. Similarly, in a laboratory study of assembling bicycle chains, Wyatt (1929) observed that output increased from 2.4 to 5 due to change in work. Wyatt and Frasner concluded that reduction in output is constantly noted, especially where there is constant complaint of boredom. Thus, variability in the same job should be permitted as far as possible.
2. **Rest Pause:** Rest pauses if lengthy lead to boredom. A long rest pause usually creates disturbance in different types of mental work because the worker loses the continuity and interest of work. The remedy is to introduce frequent and short rest pauses seem to be more effective. The amount of rest pause varies with the nature of work because manual work require more frequent rest pause as against mental work.
3. **Ambience:** Unfavourable ambience also creates boredom. When an employee dislikes their workplace automatically after some time they get bored. One of the remedy to overcome this problem is introduction of music. Music at workplace helps in reducing boredom, improving the mental state of workers and raising the level of production and efficiency. A study by Kerr (1945) suggested that music not only improved production, it also improved the attitude of the workers and had a favourable effect on their mental state. Smith (1947) reported a finding which revealed that there was an average increase of 7% in the day shift and 17% in the night shift with the introduction of music. However, McGehee and Gardner (1949) did not find any improvement in production due to the introduction of music.
4. **Intelligence:** One of the causes of boredom is intelligence. It is quite seemed unusual that the most important asset of the workers’ leads boredom. The reason behind that worker with low intelligence may be satisfied with the job like floor cleaning but under such situations an intelligent worker will not find any interest and job satisfaction. How to overcome this problem is one of the major concerns for employer. Here, employers try to designate the work based on employee’s capability and interest and of course their personal profile will definitely minimize the chance of being bored.
5. **Incomplete Task:** If work not completed at time worker develop a sense of dissatisfaction which create sometime boredom. If management divides the task into different subparts and when a part is completed the employee experiences a feeling of completion. Maier (1970), “Task completion represents a form of motivation inherent in the nature of job and therefore is one of the most practical ways for creating interest”.

**EFFECTS OF BOREDOM**

* Reduction in the efficiency of the worker.
* Losing interest on particular task.
* Boredom lacks feeling of satisfaction.
* Downfall in production.
* Various health problems like, sleepiness, nervousness, anxiety, laziness etc.
* Workers become sarcastic.
* Lack of concentration and many more.

**HOW TO REDUCE BOREDOM**

* Psychological guidance and counseling should be given to neurotic workers. Because neurotic workers lose interest in the job and get bored very quickly.
* If repetitive work is made entirely automatic or semi-automatic, the feeling of boredom can be reduced to a considerable extant.
* Group discussion can be used to reduce boredom.
* Feeling of progress in their experience when introduced amongst the workers in workplace it will avoid boredom.
* Introduction of social events also reduce the work boredom like picnic, formal get-to-gather etc.
* Encourage informal group in workplace this will differently reduce the boredom.
* Boredom reduces by giving employees responsibility and opportunities of judgements.

**INDUSTRIAL ACCIDENT AND SAFETY**

The word accident is derived from the Latin verb ***accidere***, signifying “fall upon, befall, happen, chance.” An accident, often causing serious injury that is job-related in that it usually happens on a work site such as a factory floor or a construction site or an unexpected and undesirable event, especially one resulting in damage or harm.

**According to the Factories Act, 1948**, it is “an occurrence in an industrial establishment causing bodily injury to a person who makes him unfits to resume his duties in the next 48 hours”.

An industrial accident may be defined as “an occurrence which interferes with the orderly progress of work in an industrial establishment”.

**According to T.W. Harrell**, “Accidents are not only expensive, but they also lower the morale of the workers and in addition result in lower production”.

**Heinrich (1959)** defines an accident as an unplanned and uncontrolled event in which the action or reaction of an object, substance, and person results in personal injury or the productivity thereof.

Accident not only costly to industrial economy but they also results in injuries, pain or even death of the worker involved. It will also lower the morale and satisfaction of the worker and decrease the rate of production. Therefore, industries work hard to find out the causes of accident and also provide safety measures to reduce the accidents. In common accident may be defined as, some sudden and unexpected event taking place without expectation, upon the instant, rather than something that continues, progresses or develops; something happening by chance; something unforeseen, unexpected, unusual, extraordinary, or phenomenal, taking place not according to the usual course of things or events, out of the range of ordinary calculations; that which exists or occurs abnormally, or an uncommon occurrence.

**CAUSES OF INDUSTRIAL ACCIDENTS**

Accidents are usually the result of a combination of factors, each one of which may vary from situation to situation. **According to Glimer (1971)**, unsafe acts and unsafe conditions may interact in such a way that an accident may be caused by both. The following are the causes of industrial accidents which are as follows:

1. **Nature of work**: Plenty of accident in the workplace is by the nature of work. Slippery and greasy floors, locations of machines also lead to accidents.
2. **Inadequate safety device**: Safety devices are the part of work and need utilization when required such as gloves, rubber sole, ear blocker, goggles, glasses, particular clothes. But all safety devices if not properly working than it will lead to accidents. While making a survey of accidents, **Stephenson (1927)** came to the conclusion that many of the safety devices to be wear by the workers are actually not used by them, perhaps because of resistance or because they consider this to be an insult to their intelligence and efficiency.
3. **Improver ventilation**: This is also cause accident because by the moisture workers feel uncomfortable to perform the task and it will be resultant into minor or some time major accidents. Extremes of heat and cold are harmful to the human body. This is experienced as follows:
* Below 12 deg C–Uncomfortably cold
* Below 20 deg C–Cold
* 24–30 deg C–Comfortable
* Above 38 deg C–Uncomfortably hot
* Above 42 deg C–Intolerably hot
1. **Improver light**: To control industrial accidents illumination should be proper and optimum. Stanley’s (1966) study indicates that 25% of the accidents are due to artificial lighting. Excessive glare causes eye strain and it becomes one of the frequent causes of accident as viewed by DeSilva (1942). Comfortable work environment should have the following lighting standards:

|  |  |
| --- | --- |
| **Type of work** | **Average illumination** |
| Rough work | 150 lux |
| Medium work | 300 lux |
| Fine work | 1000 lux |
| Very fine work | 1500 lux |

Insufficient illumination causes not only eye strain and vision defects, but physical and mental strain and poor performance levels. A factor often ignored in declining trend in the workers eye sight with age. This has also to be taken into account

|  |  |
| --- | --- |
| **Age illumination** | **Needed** |
| 30 years | 1 time |
| 40 years | 1.5 times |
| 50 years | 2 times |
| 60 years | 3 times |

1. **Faulty layout**: Optimum arrangement of physical resource within the prescribed area called layout. Like sequential location of machines i.e. machine should be placed according to task which was performed first than second than third and so on. If they are not properly done definitely it will lead to accidents.
2. **Noise**: If induced hearing loss or occupational deafness is caused by prolonged exposure. Continuous prolonged exposure to higher than permissible levels of noise causes vision changes, heart and circulatory disturbances and behaviour changes. Permissible levels of noise in the work environment are as follows:

|  |  |
| --- | --- |
| **Hours of exposure** | **Noise level, Decibels** |
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 | 105 |
| 1/2 | 110 |
| 1/4 | 115 |

1. **Work schedule**: One of the most important causes of industrial accident is work schedule. Many of studies shown that workers who work in night shift are more inclined to accident as compared to day shift.
2. **Long hour of work**: If worker work across their allotted time (prescribed time for doing particular task) usually eight hours a day, they get tired easily and with resultant into fatigue, muscular pain, stress etc. which lead accident.
3. **Speed of work**: When speed of work rises and definitely frequency of accidents also rises. And it will more on night shift as compared to day shift. Excessive speed also introduces fatigue which may lead to accident.
4. **Faulty design of machine/ equipment**: Some time worker not understands the process of operating machinery because of their faulty design. They not properly control the equipments. It will increase the chance of accident and create an unsafe working environment.
5. **Age, sex, experience**: Younger workers are more prone to accident as compared to older ones. As workers gain experience the possibility of accident reduced. Sex also influence the rate of accident, female workers are more inclined to accident as male. Vernon (1945) has found that there is a significant relationship between young age and less experience and the accident rate. Approximately 50% of the employees had accidents in their first 6 months, and only 5% had accidents after they had two and a half years of experience.
6. The Metropolitan Insurance Company suggests, on the basis of age, that the younger people are the greatest sufferers. In a textile mill it was found that among the younger group, for every 100 workers 80 were involved in accidents, whereas the number of accidents was 12 in the 30–35 years age group.
7. **Health**: Poor health and low energy lead to accident. Health not only includes physical but also mental health. If worker’s physical or mental health deteriorates it increases the chance of accident.
8. **Absenteeism**: Workers who are regular in their work are less prone to accident as compared to absentee. From the attendance record of a company from last few years showed a direct relationship between accidents and absenteeism. In a sample of 289 employees, 200 employees who had no accidents averaged 15 absences, while the remaining 89 who had accidents averaged 24 absences. (Hill, 1955).
9. **Alcohol addiction**: At the state of drunkenness individuals’ does not control over their action. They did not understand the clearly picture of work which may lead accidents. It not only influences the work of individual but also affect the family, friends and co-workers relationship with the particular individual.
10. **Fatigue**: Fatigue caused by many reasons like long working hour, unfavourable working condition, inappropriate rest periods, faulty machine, physical and mental health and many more. From all these reasons workers loses attention and concentration on work resultant into accidents. Musico (1922) found that there is a constant increase in accidents as hours pass, both in the morning and evening spells, but they are higher in the morning than in the end hours. He further found that the maximum number of accidents occurred at 11 a.m. and again between 5 and 6 p.m.
11. **Frustration**: Doob (1961) clearly indicates that frustration causes a person to be accident-prone, especially when he shows aggressive, regressive or fixative actions as a reaction to frustration.
12. **Mental ability**: Some studies found that worker with low mental ability are more prone to accident as compared to others but some studies shown that there is no correlation among intelligence and mental ability. Chamber (1939) found that very few accident prone individuals were above average in intelligence and learning ability, dependability and industry. But it was recommended to management that before assigning the task or job to worker makes sure that particular task is compatible to their mental ability.
13. **Neuroticism**: A worker who is neurotic are more inclined to accident. Many of psychologists said that there is positive relation between neuroticism and accident. Neurotic worker get fatigue easily, lose their confidence, feeling unsatisfied and many more and obviously they all the cause accident. Management should be more emphasis on the problem and remedies of neuroticism.
14. **Carelessness**: Carelessness is the prime cause of accident. A little bit carelessness some time introduces huge accident. Carelessness can be removed by regular reminders to be careful.

**INDUSTRIAL SAFETY**

Accidents have many causes and it will happen at any time. If employer provide safe work environment to workers than automatically it minimizes the occurrence of accident. Industrial safety contributes to team work, high satisfaction and morale and but obvious high productivity.

**SAFETY MEASURES**

There is some safety measure which if seriously considered than it will be helpful to not only workers but also employer of the particular concern:

1. **Appropriate training programmes**: For minimizing the impact of accident in workplace employers must ensure that there should be a proper, adequate and well equipped training for new workers. Because they are not familiar to the workplace and the machine also and with these new workers the chance of accident will be higher as compared to another.
2. **Safety habits**: If management tries to develop a sense of security at the time of training itself than it will automatically become habit at the actual performance. Workers are not inclined to accident because they adopted safety in their habit.
3. **Handling safety devices**: The handling of safety devices is very important. Before handling equipment there should be a proper discussion about the proper use of these devices. It will lead less accident. Put some reward system which motivates the workers to use machine carefully.
4. **Safety campaigns**: Promote awareness about safety among the workers. It can be done by posters; slogans etc. or organize effective accident prevention weeks which create awareness about how to minimize accident in workplace, what safety measures should be if taken for doing flawless work.
5. **Housekeeping**: Poor housekeeping like wet or dry, slippery and greasy floors, bad arrangement of machines, material leads accident. For maintaining a safe work place housekeeping details must be attended to.
6. **Adequate selection**: Selection of workers at workplace should be done by proper tests. Assign task to individual according to their compatibility. If work or task is compatible to worker than chance of accident should be minimized and of course workers will be satisfied and feel less fatigue.
7. **Actuarial methods**: The actuarial method emphasis finding the cause of accidents based on actual data and developing reduction of conducted accident programmes from that angle. Mcfarland and Moseley’s (1954) clearly indicate that accident repeaters committed many more violations than did accident-free-drivers. The number of vibrations of accident repeaters is much greater than proportional expectations. They liable to believe that a man drives as he lives. Speed in private driving and violations which reflect attitude towards authority seem to be characteristic of repeaters. In brief the actuarial method involves studying accidents statistics to determine based upon statistical data those things which seem to be related to accident frequency. (Blum & Naylor).
8. **Regular inspection**: For the conduction of sound working it was recommended that regular inspection should be done on workplace. The inspector checks all the availability of proper working environment for workers and if any dissimilarity exists they counsel the worker and also inform the management.
9. **Safety education programmes**: Accidents can be reduced by safety education programmes which were conducted by management and workers groups. Regular foremen’s meetings can be effective in reducing accidents. The United States Department of Labour (1947) has issued a “Guide to Industrial Accident Prevention Through a Joint Labour-Management Safety Committee” which suggests some points for a safety committee:
10. Make immediate and detailed investigation of accident reports.
11. Develop accident data to indicate accident sources and injury rates.
12. Develop or revise safe practice and rules to comply with plant needs.
13. Inspect the plant to detect hazardous physical conditions or unsafe work methods.
14. Recommended changes or additions to protective equipment and device to eliminate hazards.
15. Promote safety and first aid training for committee members and workers.
16. Participate in advertising safety and in selling the safety progamme to workers.
17. Conduct regular scheduled meetings.

**JOB ANALYSIS**

Job analysis is a formal and detailed examination of job. Job analysis is the process of gathering and organizing detailed information about various jobs within the organization so that managers can better understand the process through which they are performed most effectively. Job is synonyms of work. Work is understood as physical and mental activity that is carried out at a particular place and time, according to instruction, in return for money.

Job analysis includes job description and job specification. Job description includes tasks and responsibilities of a job. Job title, duties, machines, tools and equipment, working conditions and hazards comes under job description. The capabilities that the job holder should possess for doing a particular job from part of job specification. Education, experience, training, skills, communication are a part of job specification. Whatever the particular job demanded there are certain abilities required to discharge the task. Job analysis is important if an organization is to fully understand the skills and competencies required to perform a particular job.

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There is a list of eleven items of job analysis suggested by Viteles’ (1932) known as Guide of Job Analysis:

1. Identification of the job
2. Number employed
3. Statement of duties
4. Machines used
5. Analysis of operations
6. Conditions of work
7. Pay and non-financial incentives
8. Relation to other allied jobs (place in the organization)
9. Opportunities for transfer and promotion
10. Time and nature of training
11. Personal requirements:
12. General (e.g., age, marital status)
13. Physical
14. Educational
15. Previous experience
16. General and special abilities
17. Temperamental and character requirements

Job analysis is a important part of working efficiency, besides promoting smooth working relationships among the employees. Effective training programmes, efforts to reduce fatigue, fair personnel police and many other measures leading to efficiency cannot be introduced effectively unless the basic and preliminary step of job analysis has been taken carefully.

**IMPORTANCE OF JOB ANALYSIS**

**Lawshe and Satter (1944)** have pointed out four primary importance of job analysis:

1. To find out the derivation of training content.
2. For setting up of personnel specifications.
3. For the improvement of job efficiency.
4. For establishment of wage structure.

**METHODS OF JOB ANALYSIS**

There are many different methods which may be used to obtain data for a job analysis. Some are the listed below:



1. **Checklist Method:** Under this technique of collecting data for job analysis, workers’ check the task that he performs from a long list of possible task statements. It requires lots of preliminary work to prepare the check list for collecting appropriate task statements. Check list method are easily administered to large group and easy to tabulate.
2. **Observation Method:** Observation method actually conducted at the place of job or work. The observers examine the task which was performed by worker through simple observation without interrupting work, and made their conclusion. The advantage of this method is the production process never stopped.
3. **Individual Interview Method:** In this method representatives are selected and interviewing usually outside or the actual job situation. The interview is structured and should be done with the help of experienced and qualified interviewers. It has not been done by the single interview, but a series of individual interview provide accurate data for job analysis. This technique is costly and time consuming but if done with care it provides complete picture of the job.
4. **Group Interview Method:** Group interview method is an extension of individual interview method. The advantage over the individual interview method is the savings in time obtained by the group method. Under this technique interviewer interviewed the group of respondents simultaneously. With the instruction of interviewer respondents recall and discuss their work activity. The interviewer collects and combines all the comments into a single job description.
5. **Work Participation Method:** Under this technique the job analysts perform the job himself. They learned by doing work himself and obtain firsthand information about all the characteristics for job investigation. This technique is good for simple job but as the job becomes complex it will not suggested. Because before doing that particular complex task prior training required for analysts which leads into costly and time consuming method of data collection.
6. **Diary Method:** Workers’ are instructed to record their daily job activities using some type of logbook or diary. This method is useful in gathering data systematically which give valuable information for job analysis. But it is also time consuming, and data are not satisfactory when recording form are not kept simple for workers’.
7. **Technical Conference Method:** Under this method job analyst get information from expert rather than actual job performer. These experts are basically the supervisors who have extensive knowledge of job. The analyst discusses all the characteristics of job with experts. The main drawback of this method is the expert are not actually perform the task themselves. They give information to analyst on the basis of their own previous experience.
8. **Questionnaire Method:** Here, job performer gives the detailed information about the job via survey method. Under this technique a well prepared questionnaire related to job activity imposed to workers’ and job analyst examine the responses. The method is useful for people who write easily but not so good for collecting data from low-level workers’ who have little facility for self-expression. It is also time consuming and lengthy process to analyze the data obtained.

**RECRUITMENT AND SELECTION**

**RECRUITMENT**

Recruitment is the process of attracting potential candidates for a particular job vacancy. Recruitment forms the first stage in the process which continues with selection and ceases with placement of the candidates.

**According to Edwin B. Flippo**, “Recruitment is the process of searching the candidates for employment and stimulating them to apply for jobs in the organization”.

Recruitment is the activity that links the employers and the job seekers. Recruitment is the process of locating and encouraging potential applicants to apply for existing or anticipated job opening. Recruitment is the process of developing a pool of qualified applicants who are interested in working for the organization might reasonably select the best individual or individuals to hire for employment. In simple words, recruitment is the process of attracting qualified applicants for a specific job. The process begins when application are brought in and ends when the same is finished. The result is a pool of applicants, from where the appropriate candidate can be selected.

**According to BusinessDictionary.com**, “Process of identifying and hiring best-qualified candidate (from within or outside of an organization) for a job vacancy, in a most timely and cost effective manner”.

**According to Yoder**, “Recruitment is a process to discover the source of manpower to meet the requirement of the staffing schedule and to employ effective measures for attracting that manpower in adequate number to facilitate effective selection of an efficient working force.”

In simple words, recruitment refers to the process of screening and selecting qualified people for a job at an organization or firm. Or recruitment is the process of attracting prospective employees and stimulating them for applying job in an organization. Recruitment is a continuous process whereby the firm attempts to develop a pool of qualified applicants for the future human resources needs even though specific vacancies do not exist. Usually, the recruitment process starts when a manger initiates an employee requisition for a specific vacancy or an anticipated vacancy. Thus, recruitment enables the organization to select suitable employees for different jobs. It is the most important function of the personnel department. It is concerned with the discovery of the source of manpower and tapping of the sources so that the potential employees are properly evaluated and the new employees are placed and inducted to fill up the vacant position in the organization.

Recruitment is a two-way street: it takes a recruiter and recruitee. Just as the recruiter has a choice whom to recruit or whom not, so also the prospective employee has to make the decision if he should apply for that organizations’ job. The individual makes this decision usually on three different bases:

1. The objective factor (pay, benefits, location, opportunity etc.)
2. Critical contact (behaviour of the recruiter, the nature of physical faculties etc.)
3. Subjective factor (personality patterns, the image of organization i.e. choices are made on a highly personal and emotional basis.)

**OBJECTIVES OF RECRUITMENT**

1. Recruitment aims at developing and marinating adequate supply of labour force according to the need of the organization.
2. To provide sufficiently large group of qualified candidates, so that suitable candidates can be selected out of them.
3. Hiring the right kind of candidate on the right job.
4. It facilitates the maximum pool of candidate with minimum cost.
5. Meet the organization’s legal and social obligation regarding the composition of its workforce.
6. Recruitment is the process which associates the employers with the employees.
7. Help to reduce the probability that job applicants once recruited and selected will leave the organization only after a short period of time.
8. Attract and encourage more and more candidates to apply in the organization.

**PROCESS OF RECRUITMENT**



**Process of Recruitment**

1. **Identify Vacancy:** The recruitment process begins when human resource department get a requisition from other department. How many personnel are required in a particular department? What are their qualifications? This type of question is analyzed at this stage.
2. **Job Analysis:** It is a procedure by which pertinent information is obtained about a job, i.e., it is detailed and systematic study of information relating to the operations and responsibilities of a specific job.6 At this stage of recruitment detailed analysis should be considered or prepare complete job analysis which include both job description (which includes title, location, duties, working condition, hazards etc.) and job specification (which includes qualification, experience, age limit required etc.)
3. **Communicating Vacancy:** The next step in the process of recruitment is communicating vacancy to desired applicant which can be done by advertisement in newspapers, radio, television, on internet etc.
4. **Managing the Response:** It is crucial task and should be done by well qualified staff because if any flaws exist in this stage it may leads to call for interview an undesirable candidate or organization miss an opportunity to recruit desirable candidate.
5. **Select Candidates:** It is as more important as previous stage which should be done with sincerity. Here the HR department selects the candidates who are suitable for the particular job or profile.
6. **Arranging Interview:** This is the last stage in the recruitment process which leads to the initiation of selection process. The suitable candidates which are selected in previous stage should call for interview and arrange interview for those candidates.

**SOURCE OF RECRUITMENT**

Every organization has the opportunity of choosing the candidates for its recruitment processes from two types of sources one is internal and other is external. The sources within the organization itself (like transfer of employees from one department to other department, promotions) to fill a position are known as the internal sources of recruitment. Or candidates who are already working in an organization come under internal source. Recruitment candidates from all the other sources who are outside the organization are known as the external sources of recruitment.

**INTERNAL SOURCES**

1. **Promotions:** The employees are promoted from one department to another in sameorganization with more benefits and greater responsibility based onefficiency and experience of a particular employee.
2. **Upgrading and Demotion:** Employees are upgraded or even demoted according to their performance which was assigned to him/her.
3. **Transfers:** The employees are transferred from one department to another according to their performance and experience. With little benefits or no benefits.
4. **Retired Employees:** It may also be recruited once again in case of shortage of qualified human resources or increase in load of work. Recruitment of such people save time and costs of the organizations as the people are already aware of the organizational culture and the policies and procedures.
5. **Retrenched Employees:** Retrenched employees are also source of useful recruitment for the organization. They better know the organization policy and practices and when they again recruited most of the cost reduced.
6. **Deceased Employees:** The dependents and relatives of deceased employees and disabled employees are also source of internal recruitment.

**EXTERNAL SOURCES**

1. **College Students:** Various management institutes, engineering colleges, medical colleges etc. are a good source of recruitment. Where well qualified executives, engineers, medical staff etc. are recruited by the companies. They provide facilities for interviews and placements in their campus. This source is known as Campus Recruitment.
2. **Placement Agencies/Consultancy:** They charge a small fee from a candidate. They play a role of third party where they provide required number of candidates to the organization with significant qualification. And they also charge some little amount as a fee from the respective candidate.
3. **Employment Exchange:** Government establishes public employment exchanges throughoutthe country. They provide clearing house for jobs and job information.These exchanges provide job information to job seekers and helpemployers in identifying suitable applicants.
4. **Press Advertisement:** Advertisement of the vacancy in the newspaper and other relatedmagazine or journal is also a good source of recruitment. Wherecandidate response on job vacancy according to their matched profile.
5. **Recruitment at Factory Gate:** If a permanent worker is not present than unskilled workers maybe recruited at the factory gate. More competent among these maybe recruited to fill permanent vacancies in the organization.
6. **Employees Referrals and Recommendation:** Many organizations have prepared system where the existing employees of the organization can refer their friends and relatives for some position in their organization. Also, the office bearers of trade unions are often aware of the suitability of applicant. Management can inquire these leaders for suitable jobs. In some organizations these are formal agreements to give priority in recruitment to the applicant recommended by the trade union.
7. **Unsolicited Applicants:** Most of the applicants visit to organization for seeking jobs when recruitment is not in process. In that case organization kept their resume and asks them to contact after some time or if there is any vacancy in organization in near future organization should call them. These types of applicants are called unsolicited applicants. This is also a good source of recruitment.
8. **Labour Contractor:** Manual workers can be recruited through contractors who sustain close contacts with the sources of such workers. This source is used to recruit labour for construction jobs or daily wages jobs.

**SELECTION**

Selection is a process of selecting most desirable candidates among others for a particular job. Picking candidate who have relevant qualification to fill jobs in an organization. Selection process is to determine whether an applicant meets the qualification for a specific job and to choose the applicant who is most likely to perform well in that job. In other words, to find out which job applicant will be successful, if hired.

Selection then consists of the processes involved in choosing from applicants a suitable candidate to fill the post.

Selection is the process of selecting a qualified person who can successfully do a job and deliver valuable contributions to the organization. A selection system should depend on job analysis. This ensures that the selection criteria are job related and will provide meaningful organizational value.

**According to Dale Yoder**, “Selection is the process by which candidates for employment are divided into two classes those who will be offered employment and those who will not.”

**According to M. Ataur Rahman**, “Selection is the screening and filtering process of job applicants who have been invited to apply for the vacant positions through which the process comes to an end.”

**According to M.J. Jucious**, “The selection procedure is the system of functions and devices adopted in a given company for the purpose of ascertaining whether or not candidate possess the qualifications called for by, a specific job.”

**According to Heinz Weihrich and Harold Koontz**, “Selection is the process of choosing form the candidates, from within the organization or from outside, the most suitable person for the current position or for the future positions.”

**PROCESS OF SELECTION**

Selection is generally a series of hurdles or steps. Each one must be successfully cleared before the applicant proceeds to the next. There is no hard and fast rule that every organization have same pattern or process of selection. Organization has their own policy of selection even for different job profile may be having different selection process.

1. **Invite Application:** It is first step of selection process. For successfully complete the process of selection it is required that number of applicants should be in large. At the time of receiving application office manager or even receptionist entertain the candidate thus it makes good image of organization in the mind of applicants. They meet tactfully with applicants i.e. friendly and courteous. If jobs are not available at that time the applicant may be asked to contact the HR department after a suitable period of time.
2. **Screening of Application:** Whatever the application received by organization is now screened with certain criteria like education, experience, age and other related information for a particular job. This helps in to remove undesirable application. From here the rejection will started, applicant who desirable comes to next stage and who are not will be rejected at this initial stage.
3. **Preliminary Interview:** When the large numbers of applicants are available, the preliminary interview is desirable both of the applicant seeking employment and of the company also. In preliminary interview perspective are given the necessary information about the nature of the job and information taken by applicants like their education, skills, salary demanded, reason for leaving previous jobs etc.
4. **Application Blank:** Application blank is one of the easiest and common method by which company gets the maximum information on various aspects of the candidate’s academic, social, demographic, working experience and references. It is widely acceptable device for getting information from a prospective applicant which will enable a management to make a proper selection and the particular information should be in their own hand-writing. Application blank may be very long or comprehensive and sometime brief are used. It includes:
* *Personal data*—Address, contact number, email ID, sex, and identification marks etc.
* *Physical data*—Height, weight, and health condition.
* *Educational data*—Levels of formal education like class X, XII, graduation, PG etc., marks obtained any other professional education acquired.
* *Employment data*—Past experience, job profile, promotions, reason for leaving previous job, last salary drawn and expected etc.
* *Extracurricular activities—*NSS, NCC, sports, games, debate, quiz etc. at school, college, university, state or national level and of course prize won on these events.
* *Reference*—Name of two or more individual who certify the suitability of an applicant to a particular job.
1. **Psychological Test:** The next step in the process of selection is very important because from here the main and critical test of candidature begins. What kind of psychological test is used for judging the candidate is another important decision. A test is standardized, having objective to measure of a candidates’ behaviour, performance or attitude. Some of the commonly used test are as follows:
* Attitude test (measure an candidates’ potential to learn certain skills like clerical, mechanical, mathematical, etc.)
* Intelligence test (mental ability, ability to understand instruction, take decisions etc.)
* Personality test (the way he/she present themselves, co-operative, calm, relaxed, good communicator etc.)
* Achievement test (typing test, shorthand test, tally, knowing latest technology)
* Simulation test
1. **Interview:** When the candidate passed their psychological test then the next step is to face interview. Interview is a face to face interaction between interviewer and interviewee. The interviewer check that the particular candidature is suitable for specified job or not and interviewee gets maximum information about their job profile, salary, etc. There are many types of interview like structured and unstructured interview, selection interview, panel interview, stress interview etc.
2. **Reference Checking:** The use of references is common in most selection procedure. It helps in checking out the candidate character, their qualification what they have, their experience is appropriate or not other related data should be authenticated or not. These references may be from candidate’s who are familiar with the candidate’s information. The personnel department checks reference carefully.
3. **Final Selection by Interviewers:** After completing the entire above step now final selection should be done by the interviewers.
4. **Medical Test/Physical Examination:** Physical or medical examination reveals whether or not a candidate possess physical qualities like acute hearing, clear vision, high stamina, clear tone of voice. ‘Physical examination should disclose the physical characteristics of the individual that are significant from the standpoint of his efficient performance of the job he may enter or of those jobs to which he may reasonably expect to be transferred or promoted’, says Dale Yoder.
5. **Placement:** The final step in selection process is placement of candidate to their job and work place.

**RELIABILITY AND VALIDITY OF RECRUITMENT TEST**

Reliability and validity are two technical properties of a test that indicate the quality and usefulness of the test. These are the two most important features of a test. Management should examine these features when evaluating the suitability of the test for organization use. Reliability estimates the consistency of test measurement, or more simply the degree to which an instrument measures the same way each time it is used in under the same conditions with the same subjects. Validity, on the other hand, involves the accuracy of measurement and what management supposed to measure. Validity is more important than reliability because if an instrument does not accurately measure what it is supposed to, there is no reason to use it even if it measures consistently.

**IMPORTANCE OF RELIABILITY AND VALIDITY OF RECRUITMENT TEST**

An employment test is considered “good” if the following can be said about it:

1. The test measures what it claims to measure consistently or reliably. This means that if a person were to take the test again, the person would get a similar test score.
2. The test measures what it claims to measure. For example, a test of mental ability does in fact measure mental ability, and not some other characteristic.
3. The test is job-relevant. In other words, the test measures one or more characteristics that are important to the job.
4. By using the test, more effective employment decisions can be made about individuals. For example, an arithmetic test may help you to select qualified workers for a job that requires knowledge of arithmetic operations.

The degree to which a test has these qualities is indicated by two technical properties: reliability and validity.

**RELIABILITY TEST**

Reliability is the extent to which a test is repeatable and gives up consistent scores. Test reliability refers to the degree to which a test is consistent and stable in measuring what it is intended to measure. Most simply put, a test is reliable if it is consistent within itself and across time. A measure is considered reliable if a person’s score on the same test given twice is similar. It is important to remember that reliability is not measured, it is estimated. The goal of estimating reliability (consistency) is to determine how much of the variability in test scores is due to measurement error and how much is due to variability in true scores. Measurement errors are essentially random a person’s test score might not reflect the true score because of the following reasons:

1. **Test taker’s temporary psychological or physical state:** Test performance can be influenced by a person’s psychological or physical state at the time of testing. For example, differing levels of anxiety, fatigue, or motivation may affect the applicant’s test results.
2. **Environmental factors:** Differences in the testing environment, such as room temperature, lighting, noise, or even the test administrator, can influence an individual's test performance.
3. **Test form:** Many tests have more than one version or form. Items differ on each form, but each form is supposed to measure the same thing. Different forms of a test are known as parallel forms or alternate forms. These forms are designed to have similar measurement characteristics, but they contain different items. Because the forms are not exactly the same, a test taker might do better on one form than on another.
4. **Multiple raters:** In certain tests, scoring is determined by a rater's judgments of the test taker’s performance or responses. Differences in training, experience, and frame of reference among raters can produce different test scores for the test taker. These factors are sources of chance or random measurement error in the assessment process. If there were no random errors of measurement, the individual would get the same test score, the individual’s “true” score, each time. The degree to which test scores are unaffected by measurement errors is an indication of the reliability of the test. Reliable assessment tools produce dependable, repeatable, and consistent information about people. In order to meaningfully interpret test scores and make useful employment or career-related decisions, management needs reliable tools.

**TYPES OF RELIABILITY TEST**

1. **Test-retest reliability:** The test-retest method of estimating a test’s reliability involves administering the test to the same group of people at least twice. Then the first set of scores is correlated with the second set of scores. The resulting reliability measures the stability of the true score over time. The three main components to this method are as follows:
2. Implement your measurement instrument at two separate times for each subject;
3. Compute the correlation between the two separate measurements; and
4. Assume there is no change in the underlying condition (or trait you are trying to measure) between test 1 and test 2.
5. **Alternate forms/parallel forms:** Administer Test A to a group and then administer Test B to same group. Correlation between the two scores is the estimate of the test reliability.
6. **Inter-rater reliability:** Compare scores given by different raters. e.g., for important work in higher education (e.g., theses), there are multiple markers to help ensure accurate assessment by checking inter-rater reliability.
7. **Internal consistency:** Internal consistence is commonly measured as Cronbach’s Alpha (based on inter-item correlations)—between 0 (low) and 1 (high). The greater the number of similar items, the greater the internal consistency. That’s why you sometimes get very long scales asking a question a myriad of different ways - if you add more items you get a higher Cronbach's.

**VALIDITY TEST**

Validity is the extent to which a test measures what it is supposed to measure. Validity is a subjective judgement made on the basis of experience and empirical indicators. Validity is the most important issue in selecting a test. Validity refers to what characteristic the test measures and how well the test measures that characteristic.

Validity tells you if the characteristic being measured by a test is related to job qualifications and requirements.

Validity gives meaning to the test scores. Validity evidence indicates that there is linkage between test performance and job performance. It can tell you what you may conclude or predict about someone from his or her score on the test. If a test has been demonstrated to be a valid predictor of performance on a specific job, you can conclude that persons scoring high on the test are more likely to perform well on the job than persons who score low on the test, all else being equal.

Validity also describes the degree to which you can make specific conclusions or predictions about people based on their test scores. In other words, it indicates the usefulness of the test.

**TYPES OF VALIDITY TEST**

1. **Criterion-related validation** requires demonstration of a correlation or other statistical relationship between test performance and job performance. In other words, individuals who score high on the test tend to perform better on the job than those who score low on the test. If the criterion is obtained at the same time the test is given, it is called concurrent validity; if the criterion is obtained at a later time, it is called predictive validity.
2. **Content-related validation** requires a demonstration that the content of the test represents important job-related behaviours. In other words, test items should be relevant to and measure directly important requirements and qualifications for the job.
3. **Construct-related validation** requires a demonstration that the test measures the construct or characteristic it claims to measure, and that this characteristic is important to successful performance on the job.

**INDUSTRIAL PSYCHOLOGY: UNIT-4**

**PERFORMANCE MANAGEMENT**

**INTRODUCTION**

The ultimate goal of any organization is to make profit with taking care of society or nation. And for this reason organization make sure that their employees work hard with perfection for attaining that particular goal. For making employees more productive organization review the performance of their employees and make recommendation for better result. Performance management is the assessment of an employee’s effectiveness, usually as undertaken at regular intervals of time for analyzing their work and help in making their bright future. Performance management/appraisal is supposed to be an ongoing process throughout the year. If you as a manager really want your company and your employees to benefit the most from their appraisal, then you have to have regular meetings throughout the year. Those meetings are intended to discuss the employees’ performance, achievements, plusses and minuses. In this chapter, we discuss the objectives, process of performance appraisal and different methods of performance appraisal which are suitable of organization.

**CONCEPT AND MEANING**

Performance management is the process of obtaining, analyzing and recording information about the relative worth of an employee. The focal point of the performance appraisal is measuring and improving the actual performance of the employee and also the future potential of the employee.

**According to Flippo**, “Performance appraisal is the systematic, periodic and an impartial rating of an employee’s excellence in the matters pertaining to his present job and his potential for a better job.” Performance appraisal is a systematic way of reviewing and assessing the performance of an employee during a particular period of time and planning for his future.

**Scoot, Clothier and Spriegel** have defined merit rating or performance appraisal as the process of evaluating the employee’s performance on the job in terms of requirement of the job.

Performance appraisal is a systematic review of a person’s work and achievements over a recent period, usually leading to plans for the future.

**OBJECTIVES OF PERFORMANCE MANAGEMENT**

* It facilitates the relationship and communication between management and employees.
* To assess the performance of the employees over a given period of time.
* To give feedback to the employees about their past performance.
* To find out that any gap between the actual and the desired performance of the employees.
* Provide clarity of the expectations and responsibilities of the functions to be performed by the employees.
* To analyze the strengths and weaknesses of the employees so as to identify the training and development needs of the future.
* To plan career development, human resource planning based on potentialities.
* Performance appraisal can help in development of scientific basis for reward allocation, wage fixation, incentives etc.
* To reduce the grievances of the employees.

**PROCESS OF RERFORMANCE MANAGEMENT**

It is an ongoing process where organization review their employees perfor­mance in a particular period of time mainly once in a year. check their performance and suggest them how to improve their performance against set standards. performance appraisal process consists of six steps, first is, setting standards which are the base of the performance appraisal or simply say that performance will be judged on that standards. the standards set should be clear, easily understandable and in measurable terms for both appraiser and for appraisee. in case the performance of the employee cannot be measured, great care should be taken to describe the standards.

second, after setting standard now its time to communicate these standards to both appraiser and appraisee. for appraiser it is important because for fulfilling that standards which type of method is used, how the plan is executed, what are the constraint, all these question will be solved easily. for appraisee, they know at what parameter they are going to judge. this will help them to understand their roles and to know what exactly is expected from them. the advantage of this step is, if any modification is recommended by either appraiser or appraisee which is feasible, considered.



 Process of Performance Management

Third step, It is a continuous process which involves monitoring the performance throughout the year. This stage requires the cautious while selection of the appropriate method of measurement, taking care that personal bias does not affect the result of the process and providing assistance rather than interfering in an employees work.

Evaluating actual performance with the desired performance standards is the fourth step in performance appraisal process. The comparison tells the deviations in the performance of the employees if any, from the standards set.

At the next Step, whatever the result getting from comparing actual with desired performance is communicating to the respective employee and supervisor. The focus of this discussion is on communication and listening. The results, the problems and the possible solutions are discussed with the aim of problem solving and reaching consensus. The feedback should be given with a positive attitude as this can have an effect on the employees’ future performance. The purpose of the meeting should be to solve the problems faced and motivate the employees to perform better.

The final step is decision-making. Whatever the outcomes from appraisal process should be considered while making organizational plan. Decision related to promotion, rewards, incentives, bonus, transfer, demotion etc. are taken at this step.

APPROACHES TO PERFORMANCE DEVELOPMENT

TRADITIONAL APPROACH

* This approach was a past oriented approach which focussed only on the past performance of the employees during a past specified period of time.
* This approach did not consider the developmental aspects of the employee performance like his training and development needs or career developmental possibilities.
* The primary concern of the traditional approach is to judge the performance of the organization as a whole by the past performances of its employees.

MODERN APPROACH

* The modern approach to performance appraisals includes a feedback process that helps to strengthen the relationships between superiors and subordinates and improve communication throughout the organization.



* Appraisals have become ongoing and periodic activity in the organizations.The results of performance appraisals are used to take various other HR decisions like promotions, demotions, transfers, training and development, reward outcomes.

**METHODS OF PERFORMANCE MANAGEMENT**

**TRADITIONAL METHODS**

1. **Essay Appraisal Method:** It is also known as “free essay method”. Under this method immediate supervisor is playing a role of appraiser and he appraises their subordinates on their past performance. Supervisor writes feedback in their own hand writing. The description is always as realistic and actual as possible. It is easy and can be done without any adequate preparation is the benefit of this method. A major drawback of the method is the inseparability of the bias of the evaluator.
2. **Straight Ranking Method:** In this method an appraiser appraise the appraisee on their whole contribution in the organization. They rank employees from the best to the poorest. It is one of the oldest and simplest methods of performance appraisal. This is the simplest method of differentiate efficient from least efficient and quite easy to develop and apply. But the limitation of this method is to become difficult when the large number of employees should be ranked and this method tells employee relation to the others in a group but it does not identify how much better or worse he/she is than other.
3. **Paired Comparison:** This method is overcome the limitation of straight ranking method. Under this, individual is compared on the basis of every trait with other individuals in their group. After all the comparisons on the basis of the overall comparisons, the employees are given the final rankings. From this method judgements become easier and simple than other ordinary ranking method. This method is not applicable where the number of individuals is large.
4. **Checklist Method:** The appraiser is given a checklist of the descriptions of the behaviour of the employees on job. The checklist contains a list of statements on the basis of which the appraiser describes on the job performance of the employees. And the final rating is done by the personnel department. The major drawback of this method is personal bias on the part of the appraiser and also it is difficult to develop checklist for different classes of job.
5. **Critical Incident Method:** The employee performance would be checked on certain events that occur in the performance of the ratee’s job. The assessor rates the employee on the basis of critical events and how the employee behaved during those incidents. The supervisor keeps a written record of the events that can be recalled and used easily. Limitation of this method is, unfavourable incidents are generally more noticeable, and may supervisor forget to record the concerned employee behaviour.
6. **Field Review:** Under this method, a training officer basically appointed by or even from HR department discusses and interviews the supervisor about how they appraise them respective subordinates. The supervisor is required to give his view about the level of performance, progress, weakness, ability, promotability and others of respective employee. This method reduces the supervisor biasing.
7. **Graphic Rating Scale:** In this method, an employee’s quality and quantity of work is assessed in a graphic scale indicating different degrees of a particular trait. The factors taken into consideration include both the personal characteristics (like leadership, co-cooperativeness, loyalty, devotion, attitude, creative ability, initiative etc.) and characteristics related to the on-the-job performance (like responsibility, attendance, quality of work, etc.) of the employees. For example a trait like Job Knowledge may be judged on the range of unsatisfactory, average, above average, outstanding.
8. **Group Appraisal Method:** As a name suggest, the appraisal should be done by the group of assessors. Which consist of their supervisor and few other supervisors who have some knowledge of respective subordinate performance. The immediate supervisor explains to the other assessors of the group the nature of his subordinates duties and responsibilities. The group then evaluates subordinate actual performance with the standards. If any deviations exist they suggest for future improvement. It is simple and very useful methods which remove any biasing but it is very time consuming.

**MODERN METHODS**

1. **Human Resource Accounting Method:** Human resources are valuable assets for every organization. Human resource accounting method tries to find the relative worth of these assets in the terms of money. In this method the Performance appraisal of the employees is judged in terms of cost and contribution of the employees. The cost of employees include all the expenses incurred on them like their compensation, recruitment and selection costs, induction and training costs etc. whereas their contribution includes the total value added (in monetary terms). The difference between the cost and the contribution will be the performance of the employees. Ideally, the contribution of the employees should be greater than the cost incurred on them.
2. **Behaviourally Anchored Rating Scales (BARS):** Under this method firstly critical incidents was set up which is based on some job performance qualities like inter-personal relationship, co-operation, reliability etc. than appraisal should be done on these critical incidents and evaluate on the graphical rating scale. Basically BARS is a relatively new technique which combines the graphic rating scale and critical incidents method. In this method, an employee’s actual job behaviour is judged against the desired behaviour by recording and comparing the behaviour with BARS. Developing and practicing BARS requires expert knowledge.
3. **Management By Objectives (MBO):** The concept of ‘Management by Objectives’ (MBO) was first given by Peter Drucker in 1954. It can be defined as a process whereby the employees and the superiors come together to identify common goals, the employees set their goals to be achieved, the standards to be taken as the criteria for measurement of their performance and contribution and deciding the course of action to be followed. Management by objectives (MBO) is a systematic and organized approach that allows management to focus on achievable goals and to attain the best possible results from available resources.

MBO also described as “a process whereby the superior and subordinate managers of an organization jointly identify its common goals, define each individual’s major areas of responsibility in term as of result expected of him and use these measures as guides for operating the unit and assessing the contributions of each its members”. The main objective of MBO is to participative goal setting, alternatives course of action and decision-making. The performance will be measured on the basis of set standards. The subordinates have been involved with the goal setting and the choosing the course of action to be followed by them, so they are more likely to fulfill their responsibilities. And it also makes sure that everybody within the organization has a clear understanding of the aims, or objectives, of that organization, as well as awareness of their own roles and responsibilities in achieving those aims.



 **MBO Process**

1. **360 degree Performance Appraisal System**: It was developed by the GE Company, USA in 1992. 360° feedback, also known as ‘multi­rater feedback’, is the most comprehensive appraisal where the feedback about the employees’ performance comes from all the sources that come in contact with the employee on his job. It may be their peers, superior, subordinates, team members, customers, suppliers/ vendors—anyone who comes into contact with the employee and can provide valuable insights and information or feedback regarding the “on-the-job” performance of the employee.



**360 Degree Performance Appraisal**

360° appraisal has four important elements—self appraisal, superior’s appraisal, subordinate’s appraisal and peer appraisal. (i) Self appraisal gives a chance to the employee to look at his/her strengths and weaknesses, his achievements, and judge his own performance. (ii) Superior’s appraisal forms the traditional part of the 360 degree appraisal where the employees’ responsibilities and actual performance is rated by the superior.

1. Subordinates appraisal gives a chance to judge the employee on the parameters like communication and motivating abilities, superior’s ability to delegate the work, leadership qualities etc. (iv) Peers can help to find employees’ abilities to work in a team, co-operation and sensitivity towards others. It is also known as internal customer.
2. Assessment Centre: The basis of this method is to test candidate in a social situation, with the group of assessors and with the variety of procedure. Assessment centres simulate the employee’s on-the-job environment and facilitate the assessment of their on-the-job performance. Usually, employees are given an assignment similar to the job they would be expected to perform if promoted. The trained evaluators observe and evaluate employees as they perform the assigned jobs and are evaluated on job related characteristics. The assessment is generally done with the help of paper-pencil test, interview, business games, psychometric tests and simulation exercise.

**TRAINING AND DEVELOPMENT**

**INTRODUCTION**

Training and development of workers is the crucial task for management. If workers not get proper training about the handling of tools and heavy machinery they not even harm that particular machinery but also themselves which is more valuable for organization. They train and develop their workers by the various means by giving simply demonstration or typically simulator or any other means. In present scenario it becomes more important because of introduction of new technologies. If they not cope with the latest technology than it will resultant into low production. From the workers psychological point of view if they are not getting the proper training and development from their concern according to the need of the worker and requirement of the employer than it will lead dissatisfaction. And it is also required that company must have a systematic programme, otherwise workers will try to lean the job by trial and error which may prove very costly for employers. In this chapter we discuss the training and development in detail like their definitions, objectives, methods, process and their effectiveness.

 **CONCEPT AND MEANING**

Training is a learning process that involves the attainment of knowledge, sharpening of skills, concepts, rules, or changing of attitudes and behaviours to enhance the performance of workers. These are the activities which basically aim at providing the skills, knowledge and aptitudes necessary for employment in a particular occupation (or a group of related occupations) in any field of economic activity.

**According to Flippo, “Training is the act of increasing the knowledge and skills of an employee for doing a particular job.”**

**According to Harris, “Training achieves the objectives of redirection or improvement of behaviour so that the performance of the trainees becomes more useful and productive for himself and for the organization of which he is a part.”**

**According to Blum & Naylor, “training is a process that develops and improves skills related performance. Effective training programme can result in increased production, reduced labour turnover and greater employee satisfaction.”**

Training is a process by which a worker learns some new technical or psychological skill. Training leads to improve the performance of the existing workers and prepares them to perform higher specialized and more advance jobs in future.

Training is a process of learning a sequence of programmed behaviour and development cover those activities which improve job performance but also those which bring about overall growth of the personality.3 Development is broader, more encompassing function than training.

Development is the process of enhancing skills, abilities, knowledge and capacities of the individual of the company. Development not only includes improvement in job performance, it is also including individual growth in the organization. Development aims at making workers not only good performers but also better human being.

Development is an educational process utilizing a systematic and organized procedure by which managerial personnel learn conceptual and theoretical knowledge for general purpose. According to Flippo, “Management development process enables managers and executives to not only acquire skills and competencies but also develop future managerial abilities.”

 **BASIC PURPOSES OF TRAINING**

The basic purpose or objective of training is to increase productivity.

By providing the training to the workers, organizations would improve the quality of work. It helps in creating skill inventory by which a company fulfils its future personnel needs. To improve organization climate which help in to creating and maintaining congenial working environment.

To improve health and safety of the workers as well as working conditions.

Training helps the workers to prevent against accident.

Last but not the least the one of the most important purpose of training is to improve the personal growth of the workers.

**BASIC PURPOSES OF DEVELOPMENT**

Improvement in supervision, command, direction and control at each level.

To create an understanding of the methods and problems of management.

To develop managers to perform better on their present assignments.

To prepare them for higher assignments.

To help them grow fast.

To create conditions and a climate which contribute to the growth process.

Inspiring junior executives to do better work.

Difference between Training and Development

Both terms are used for similar activity i.e. to improve the performance of workers by any means whether it is by giving the knowledge about the new skill or enhance their own capability for task performance. But there is a difference between the training and development.

|  |  |
| --- | --- |
| **Training** | **Development** |
| Training is designed for non-managers as well as managers. | It involves only managerial personnel. |
| It is a short term process. | Long term in nature. |
| Managerial personnel learn technical knowledge and skills. | Managerial personnel learn conceptual and theoretical knowledge. |
| The objectives of training are specific job-related purpose. | The objectives have broader overview and consider general knowledge. |
| Training is concerned with the imme­diate improvement of the employee, i.e. the ways to make the employee more effective in his current role. | Development is a process to make the employee efficient enough to handle critical situations in the future, i.e. how well he can equip himself for the future demands. |
| Training means learning new things and refreshing old one. | Development means implementing the learned session and finding new ones. |

**IMPORTANCE OF TRAINING AND DEVELOPMENT**

1. **Optimum Utilization of Workforce**: Training and Development helps in optimizing the utilization of workforce that further helps the workers to achieve the organizational goals as well as their individual goals.
2. **Healthy Work-environment**: Training and development helps in creating the healthy working environment. It helps to build good relationship among the workers and supervisors so that individual goals align with organizational goal.
3. **Productivity and Profitability**: Training and development helps in increasing the productivity of the workers as well as the organization. It also leads to improved profitability and more positive attitudes towards profit orientation.
4. **Team Spirit**: Training and development helps in inculcating the sense of team work, team spirit, and inter-team co-ordination. It helps in inculcating the enthusiasm to learn within the workers.
5. **Quality**: Training and development helps in improving the quality of work and work-life.
6. **Development of Skills of Workers**: Training and development helps in increasing the job knowledge and skills of workers at each level. It helps to enlarge the horizons of human intellect and an overall personality of the workers.
7. **Organization Culture**: Training and development helps to develop and improve the organizational health culture and effectiveness. It helps in creating the learning culture within the organization.
8. **Organization Climate**: Training and development helps building the positive perception and feeling about the organization. The employees get these feelings from leaders, subordinates, and peers.
9. **Morale**: It helps in improving the morale of the work force. Training and development helps in developing leadership skills, motivation, loyalty, better attitudes, and other aspects that successful workers and managers usually display.



1. **Identify Training Needs**: The training process started from the identification of the need of the training. Management firstly identify and analysis that their employees actually need any training or not. How these training help the growth of the organization? At what extent it will be beneficial for the workers? By giving particular training they are able to cope with the latest technology or environment? Whether the trained is for skilled, semi-skilled or for unskilled workers? All these questions should be answered at this primary level.
2. **Establishment of Training Goals**: After identifying the need of the training the next step is to establishment of training goals or objective. Management sets a parameter and checks the performance of the workers after introducing training on those parameters.
3. **Designing Training Programme**: This is the most important and critical exercise for the management. Here, management designs the whole training programme. Who are going to be training, who are going to provide training, where the training will executed, what are the methods adopted for training, what are the sequence used for training, how trainee evaluated and many other such types of task should be done at this stage.
4. **Follow-up Training Programme**: Whatever management planned, execution should be done on this stage. If trainee and trainer follow-up the programme in proper sequence as per the management decided than they get maximum output or better results.
5. **Evaluating Training Programme**: The last step in training process is evaluating the whole training process by the output. This can be done by various methods like reaction of trainees, by questionnaire method, by interviews and others. If any flaws or limitations found than it will be overcome as soon as possible. The evaluating of training process also help in designing future training programme more effective.

**TYPES OF TRAINING**

 There is lots of method by which management train their employees. They choose methods according to requirement of the training. In general, training is of two types—on-the job training and off-the-job training.

 Job Instruction Training (JIT)—In this method supervisors train operational workers. It consists of all the necessary steps with proper sequence which was required for a particular task. These steps not only explain what is to be done but also emphasis how it is to be done and why. It involves four steps (i) physically and psychologically prepare the trainees for instruction. (ii) presentation or demonstration of the particular task to the trainees, what are their responsibilities, description about the job etc. is included in this phase. (iii) at this phase trainees are tried out what they get understand from the instructions. (iv) this is the last phase of JIT where supervisors encourage trainees to solve their queries if any regarding particular task.



1. **Vestibule Training/Training Centre:** In this method trainees are trained in the company classrooms. Where they get theoretical knowledge about the work which they are going to perform. This method is more useful when there is large number of trainees have to be trained for same kind of work at same time.
2. **Demonstrations and Examples:** It is just opposite to classroom or vestibule training methods. Here supervisor describes and display something related to the job and also explains the step-by-step explanations of why and what supervisor or trainer is doing. Supervisor demonstrates to trainees with the help of lectures, picture, text material, power point presentation, discussions.
3. **Simulation:** This method is used for more sophisticated task where errors if not minimized then it leads to heavy losses. It is generally duplicate setup of the workplace, where workers feel and touch the simulated equipments and make practice to use equipment without any problem.
4. **Apprenticeship:** Apprenticeship refers to the period of service as a learner of a trade or handicraft. The apprentice, usually a boy at the beginning of his working life, was bound by a legal agreement to serve an employer for a fixed number of years during which the employer promised to instruct him. Carpenters, a machinist, weavers, jewelers, electricians, a draughtsman, a tool-maker, a printer, a pattern designer, diesinkers etc. are the field in which apprenticeship training is offered.
5. **Lectures:** This method is used to create understanding of a topic or to influence behaviour, attitudes through lecture. A lecture can be in written or oral form. Lecture is telling someone about something. Lecture is given to enhance the knowledge of listener or to give him the theoretical aspect of a topic. Training is basically incomplete without lecture. It is less expensive and can be reached large number of people at same time.
6. **Group Discussions:** This method is more useful than a lecture method. In this method the training is supported, elaborated, explains, or expanded on through interactions both among the trainees and between the trainer and the trainees. The interaction and the communication between these two make it much more effective and powerful than the lecture method. If this method is used with proper sequence i.e. lectures, followed by discussion and questioning, can achieve higher level knowledge objectives, such as problem solving and principle learning.
7. **Case Studies:** This method is usually consisting of description of some events that occurred in the organization. The basic objective of case study is to find solution of a particular problem. The trainees review the case and find out the various alternatives and finally suggest the solution. This helps the learners to increase their observation power and broaden their view.
8. **Role Playing:** The term role playing was originally coined in the 1920s by Jacob L. Moreno, a Viennese psychiatrist who surmised patients gained more from exploring their problems by acting them out than by talking about them.6 Oxford English Dictionary defines role playing as “the changing of one’s behaviour to fulfill a social role”. In this method, two or more trainees are assigned parts to play in front of others. These parts do not involve any rehearsals. They are simply informed the situation and the respective roles they have to play. The usual subjects involve in role playing are grievance handling, hiring, retrenchment, appraisal interview etc.
9. **Programmed Instructions:** Programmed instruction is a computer- based training that comprises of graphics, multimedia, text that is connected to one another and is stored in memory. A programmed instruction involves breaking information down into meaningful units and it provides the trainee with content, information, asks questions, and based on the answer goes to the next level of information i.e. if the trainee gives the correct answer than they forward to the new information. And if the trainee gives the wrong answer then they are revert to their old position and review relevant information in more elaborate manner. This method is very useful because it gives immediate feedback, frequently review the information and it allows the trainee to learn according to their capability.
10. **Sensitivity Training:** This is the method of group therapy in which the members of the group, under the guidance of a leader, seek a deeper understanding of themselves and others, as by the exchange of intimate feelings and experiences, physical contacts, etc. The main objective of sensitivity training is not to make trainees conform to a set of acceptable norms and ideas. It is designed for trainees to confront their own prejudices and biases and broadens their tolerance level. Sensitivity training involves varied methods like case studies, simulated excise, role playing etc.

**EVALUATION OF TRAINING EFFECTIVENESS**

There are various methods by which management check the effectiveness of their training programmes. Some are the:

* Reaction of Trainees;
* Learning;
* Behavioural Changes; and
* Impact on Organization Effectiveness and many more.

Reaction of trainee is one of the best methods by which management

can evaluate the effectiveness of the training programme. Under this method management tries to collect the response of the trainee. They take help of questionnaire, survey or simple interview by which they are asked certain specific question regarding the training programme and collect the responses.

The learning tendency of worker is more improved after taking training. If they can easily learn the new technologies, cope with surrounding all of this express the effectiveness of the training programme.

One of the ways suggested by Blum & Naylor8 is by comparing the change in performance of a group receiving training to the change in performance of a comparable group which did not receive the training. If two groups i.e. control group and experimental group are both evaluated before the training introduced. After imposing tests on the experimental group what are the changes seen in the experimental group compare with control group. If any difference is found in the same situation in both comparable groups it leads the importance and effectiveness of training.