
UNIT 1 INTRODUCTION TO ORGANISATIONAL AND INDUSTRIAL PSYCHOLOGY

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1.0 INTRODUCTION

We spend most of our lifetime engaged in working than in any other activity. Thus, I/O psychology is devoted to understanding our major mission in life. For years, psychologists have studied how human beings have interacted with their environments and each other, but industrial psychology begins to evaluate the interaction between people and their jobs. The main goal of the I/O psychologist is in making organisations more productive while ensuring physically and psychologically productive and healthy lives for workers.

In this unit, we will examine the fields of industrial and organisational psychology, and describe the differences and the merging of these two fields. We shall also distinguish among the various subfields of Industrial/Organisational Psychology, and finally get some idea of research in this field. When you have finished reading this unit, you should have some understanding of what industrial/organisational psychologists do at the workplace. Hopefully you would be stimulated enough to see yourself as an I/O psychologist in one of the fields of I/O Psychology. It is certainly one of the most challenging, rewarding and relevant discipline in contemporary times.

1.1 OBJECTIVES

After reading this unit, you will be able to:

- Define industrial psychology;
- Define organisational psychology;
- Differentiate between industrial and organisational psychology;
- Describe the major fields of Industrial/Organisational Psychology;
- Explain the process of research in Industrial/Organisational Psychology; and
- Differentiate among various methods of research in industrial and organisational psychology.

1.2 DEFINITION OF INDUSTRIAL PSYCHOLOGY

Industrial psychology may be defined as “simply the application or extension of psychological facts and principles to the problems concerning human beings operating within the context of business and industry” (Blum & Naylor, 1968, p. 4).

Let us begin by understanding the term industry. Wikipedia defines industry as “the production of an economic good (either material or a service) within an economy”. By extension, the field of industrial psychology addresses itself to the wide spectrum of human problems that arise in the production, distribution, and consumption of the goods and services of the economy. The knowledge of human behaviour may be applied to product design, manufacture and distribution, not only in improving bottom lines for the employer, but also in making work more pleasant for the employee.

Industrial psychology developed from attempts to apply the theories, techniques and procedures of psychology to the practical problems of the workplace. Simply put, industrial psychology is the application of psychology to industry. Industrial psychology grew out of psychology’s initial success in describing and measuring differences among people. There is little doubt that “the study of individual differences is a major foundation of the field” (Argyris, 1976, p. 152). It soon became clear to psychologists that the implications of such differences were in the areas of occupational choice, vocational guidance, personnel selection, job placement, and even counseling in organisations.

So what do psychologists really do in industries? Traditionally, industrial psychologists were concerned with the following:

- Selection and testing
- Personnel development: training, performance appraisal, attitude measurement, employee counseling, career planning
- Human engineering: Equipment and product design
- Productivity study: worker fatigue, monotony, absenteeism, physical aspects of work environment, for e.g. lighting and temperature
- Human relations: relations between supervisor and subordinates, and of labour union to management
- Others: marketing research, accidents and safety, etc.

As you can see, the psychologist working in industry does far more than give tests, a job widely believed to be his forte. Yes, psychologists have developed tests and are using them extensively. But, what the psychologist really does in the industry depends upon the size of the industry, what it does, and perhaps most importantly the attitude of the management towards psychology. Today there is hardly any known company that does not employ a psychologist or uses the services of one.

Traditional industrial psychology was however, not without limitations. Let us consider some of them (Argyris, 1976):

- A focus on description and prediction from individual differences, with little regard to the processes of human behaviour within organisations;
- A focus on selection and placement without extending it to development at either organisational or individual levels;
- Research methods (being experimental, precise, objective and too rigorous) resulting in the alienation of subjects.

Thus, industrial psychology has been regarded to have a narrow, over-restrictive range of interests that did not pay sufficient attention to the interpersonal, group and inter-group issues involved in behaviour in organisations, paving the way to the new field of organisational psychology.

1.3 DEFINITION OF ORGANISATIONAL PSYCHOLOGY

Interests in the social aspects of human work, largely ignored in traditional industrial psychology, led to the crystallization of the new field called ‘organisational psychology’. As in the earlier section, let us begin by understanding the term organisation. Organisation refers to “a consciously coordinated social unit, composed of two or more people, that functions on a relatively continuous basis to achieve a common goal or set of goals” (Robbins, 1991, p. 4). Based on this definition you can see that manufacturing and service firms (or industries), retail stores, military units, hospitals, educational institutions, Non-Governmental Organisations (NGOs), other governmental or state agencies – are all organisations.

Activity

Pause for a moment and ponder, ‘What organisations are you part of’?

(Hint: Is its composition conscious? Does it have more than two people? Does it function relatively continuously? Does it have a common goal or goals?)

As you would have noted, the definition of an ‘organisation’ is far wider than ‘industry’.

The deeper psychologists’ delved into the behaviour of individuals within organisations, the more they realised that the organisation is a complex social system that exists as a psychological entity to which an individual responds. This must be studied as a total system in order to cope with the full complexity of the person-related aspects of life within organisations. It was this realisation that created organisational psychology as a discipline in its own right. In the United States of America, this change was reflected in 1973 when Division 14 of the American Psychological Association (APA) changed its name from Division of Industrial Psychology to Division of Industrial and Organisational Psychology.

Organisational psychology may be defined as “the study of the structure of an organisation and of the ways in which the people in it interact, usually undertaken in order to improve the organisation” (Collins Dictionary).

The focus of organisational psychologists has changed from the individual per se to the individual as a member of a group or to larger units like groups and organisations. Organisational psychology examines the effects of work environments and management styles on worker motivation, job satisfaction, and productivity

Back in the 1970s, industrial and organisational psychology were recognised as two sub-groups in the field. The basic differences were the following:

Scope: Industrial psychologists were mainly involved in testing, selection, job evaluation, etc., while organisational psychologists were involved in individual and organisational change. While the former focused more on matching individuals with existing jobs, the latter were interested in modifying jobs, interpersonal and organisational conditions.

Orientation: Industrial psychology is individual-oriented, while organisational psychology is systems-oriented.

Research tradition: The research methodology in industrial psychology was largely experimental, empirical and objective; while organisational psychologists have been willing to use less rigorous, humanistic and clinical methods in order to obtain data.

1.4 DEFINITION OF INDUSTRIAL/ ORGANISATIONAL PSYCHOLOGY

Toady, when you will read most recent textbooks of ‘psychology at the workplace’ or something similar sounding, you will see that most of them bear the title “Industrial/Organisational Psychology” (abbreviated as I/O Psychology) or “Industrial-Organisational Psychology” (abbreviated as I-O Psychology). You might be beginning to wonder ‘Is this a new field that combines both industrial and organisational psychology?’ You are partly right.

Organisational psychology has now caught up with its ‘older cousin’ industrial psychology to form a strong and comprehensive field exploring diverse issues in the workplace ranging from individual topics like ‘selection’, to group ones such as ‘women at work’, ‘groups’, to organisational issues such as ‘communication’, ‘corporate culture’, ‘organisational effectiveness’, etc.

Thus, Industrial/Organisational Psychology encompasses both industrial and organisational psychology. In fact, Division 14 of the American Psychological Association, the Society for Industrial and Organisational Psychology “espouses the scientist-practitioner model in the application of psychology to all types of organisations providing goods or services, such as manufacturing concerns, commercial enterprises, labour unions or trade associations, and public agencies”.

Let us now examine some of the sub-fields of Industrial and Organisational Psychology.

1.5 MAJOR FIELDS OF INDUSTRIAL/ ORGANISATIONAL PSYCHOLOGY

Industrial/Organisational Psychology is a diverse field containing several subspecialties

(Refer Figure 1.1).

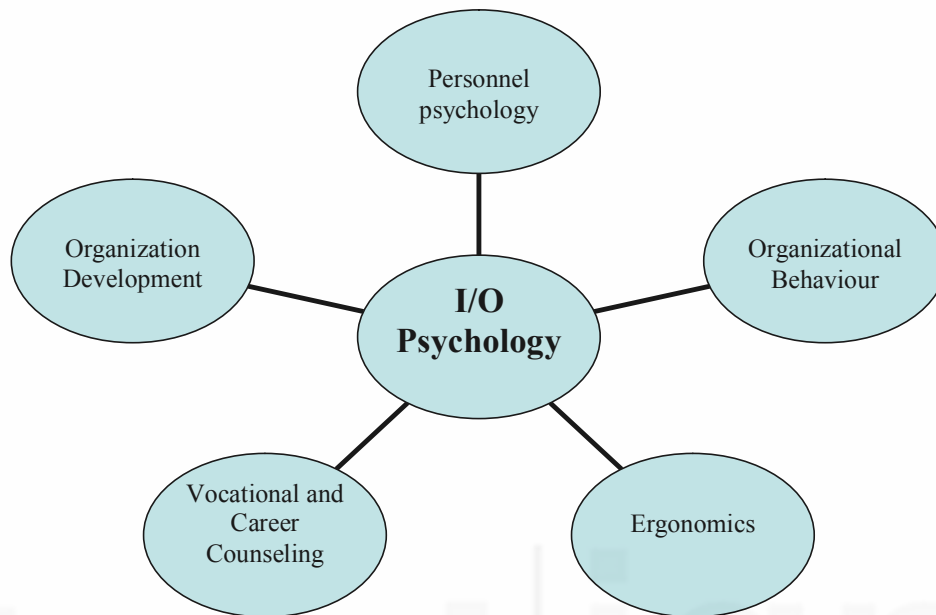


Fig. 1.1

If you choose to specialise in this area, you could be working in any (or more) of the following subfields:

1.5.1 Personnel Psychology

The term *personnel* (please don't confuse it with personal, meaning private) comes from person or people. So, personnel psychology is concerned with individual differences and therefore deals with all aspects of recruiting, selecting and evaluating personnel. For many years (and perhaps even now) personnel psychology dominated the field of Industrial/Organisational psychology, being the oldest and most traditional activities of I/O psychologists.

The thrust of personnel psychology is to study a job and the traits of individuals who hold the job, and then use this information to predict what kinds of individuals would do well in the future. Among other things, personnel psychologists study and practice in areas as employee selection and assessment, job analysis, performance evaluation, job evaluation, etc. Many professionals working in these areas use, construct or develop tests and other instruments that can be used to select or evaluate employees. Such tests have to be constantly evaluated to ensure that they are both fair and valid.

A survey by Rassenfoss and Kraut (1988) revealed that the most common activities of personnel psychologists are:

- Developing, administering and analysing employee attitude surveys
- Constructing performance appraisal instruments
- Validating tests
- Developing employee selection tests
- Conducting job analyses.

As you can probably guess, research and statistical analysis are extensively used by personnel psychologists. Those of you who fancy your chances in personnel psychology should brush up your statistics!

1.5.2 Organisational Behaviour (abbreviated as OB)

Organisational behaviour may be defined as “the study of individuals and groups in organisations” (Schermerhorn et al., 2003, p. 3). Organisational behaviour applies the scientific method to practical managerial problems. For example, if an organisation is facing problems of high employee turnover (employees quitting the organisation) or lack of team work among employees, an organisational behaviour scientist could be called in to study the company and give his/her recommendations for reducing turnover or improving teamwork. When applied to organisations and the people in them, the word behaviour can refer to three different levels – individual, group, and organisational. The study of organisation behaviour thus involves looking at the attitudes, interpersonal relationships, performance, productivity, job satisfaction, and commitment of employees, as well as leader behaviour, organisational commitment, and even the relationship of the organisation with its environment, culture and processes. This field of study investigates the impact that individuals, groups and structure have on behaviour within organisations, and to apply that knowledge towards improving the organisation’s effectiveness (Robbins, 1991). In contrast to personnel psychology that focuses more on individual-level issues; organisational behaviour is more concerned with social and group influences.

1.5.3 Ergonomics

This branch (also called engineering psychology) is concerned with modifying the work environment in order to be compatible with human skills and talents. The engineering psychologist addresses the human issues of organisation through the design of machinery and tools that take human limitations specifically into account. Psychologists in this area are involved in workplace design, man-machine interactions, design of equipment and machinery, to minimize fatigue and stress and to maximize productivity and safety. Such psychologists often work together with engineers and other technical professionals for activities such as designing of displays for airplane cockpits and automobile dashboards, computer keyboards, or home appliances that can be operated safely and efficiently.

1.5.4 Vocational and Career Counseling

A cross between counseling and I/O psychology, career counseling is a branch that assists individuals in making decisions about their lifelong roles in the world of work and in solving problems that arise in the course of this choice process (Crites, 1969). Through vocational counseling, individuals can determine the career path that is right for them, or may even be able to identify a new career they had not previously considered. They can also develop a search strategy to find a job once the best career path is determined. Career counselors may also administer personality, interest, or aptitude assessment tests to evaluate individual career potential. They may also attempt to resolve conflicts between work and non work interests and prepare individuals for retirement.

1.5.5 Organisation Development (abbreviated as OD)

Organisation development is a long-range, systematic effort, usually supported by to management, to improve an organisation’s problem-solving and renewal processes in

an organisation, with the assistance of a change agent or catalyst and the use of the theory and technology of applied behavioural science (French & Bell, 1984). Psychologists in this area are focused on understanding and managing organisational change; the change may involve people, work procedures, or technology. A few examples of interventions include team building, sensitivity training, leadership development, Total Quality Management, to name a few. If these seem like big words (they may be new to you or you may have heard them before), stop for a moment and try to find what these terms mean. You may refer to <http://www.encyclopedia.com/>

1.5.6 Industrial Relations

The term industrial relations is made up of two components—industry and relations, and hence addresses the relationship between management and employees, particularly groups of workers represented by a union. Traditionally, industrial relations is used to cover such aspects of industrial life as trade unionism, collective bargaining, workers’ participation in management, discipline and grievance handling, industrial disputes and interpretation of labour laws and rules and code of conduct. Industrial relations is heavily legislated, hence, a psychologist working in this area must have adequate knowledge of such laws.

As you can see, I/O psychology comprises of several subspecialties. Although some of them overlap, many are quite different from each other. I hope that a brief introduction of these subfields may have excited you and you can see a future for yourself in one of these specialties of I/O psychology.

Self Assessment Questions

1) Define industrial psychology.

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2) Define organisational psychology.

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3) List three points of difference between industrial and organisational psychology.

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4) The subfield of Industrial/Organisational Psychology that is concerned with developing tests for employee selection is:

- (a) Organisation Development
- (b) Personnel Psychology
- (c) Ergonomics
- (d) Vocational and career counseling

1.6 RESEARCH IN INDUSTRIAL/ ORGANISATIONAL PSYCHOLOGY

Critics of I/O psychology sometimes dismiss the field as simply common sense- a charge that is sometimes levied at psychology as well. After all don't managers and business executives understand human behaviour at the workplace already? For example, don't we all know that satisfied employees will be more productive? I bet you have answered 'Yes, certainly!' Well, it turns out that there is a very poor relationship between job satisfaction and performance. We can't always trust our common sense, right! This is where research in I/O psychology becomes important. There are important reasons of conducting research in I/O Psychology:

To understand and solve practical problems at the workplace, for e.g. causes of absenteeism that might help devise a program to reduce absenteeism and save costs for the organisation.

To enhance the organisation's efficiency. This is especially true if an industry has sponsored a research. It is generally not for idle intellectual curiosity, but to implement research findings to improve efficiency.

In order to test a theory. Once a theory has been formulated, predictions derived from it are generally tested through research. If they turn out to be correct, our confidence in the theory is strengthened. If not, the theory may undergo modifications and retested, or completely rejected.

In this section, we will briefly overview the process of research in I/O psychology and discuss some methods of research. Our aim here is not to make you an expert in scientific research, but to give you some insight into how research is done in I/O psychology.

1.6.1 Empirical Research Cycle

The research process follows five basic steps (Muchinsky, 1997):

1) Statement of the problem

The first step in conducting research is deciding what to research. Questions that initiate research may come from experience, previous research, personal hunch ('I think my employees who generally don't come to work on time lack commitment'), or some formal theory. Once a research idea has been created, the next step is to search the literature for similar research. Important sources are journals (for e.g. Journal of Applied Psychology), magazines (like Harvard Business Review) and increasingly the Internet. An extensive review of literature gives valuable pointers for design of your own research study.

2) Design of the research study

Research design is a plan for conducting the study to answer the question raised in the previous step. It includes deciding the location of the research, the sample that will be used, which type of research method to use, etc. We shall discuss some of the research methods used in I/O psychology in the next section.

3) Measurement of variables

A variable is anything that can vary. For e.g. employees can be 'high', 'low' or 'moderate' on job satisfaction and hence job satisfaction may become a variable of interest to the researcher. Broadly speaking, researchers are interested in examining

the effect of one variable (called the independent variable) on the other (dependent variable). As a norm, dependent variables are the focal point of the study. Consider the following example:

Gender (Independent variable) → Job Satisfaction (Dependent Variable)

Job Satisfaction (Independent variable) → Performance (Dependent Variable)

Note that the same variable may be selected as either a dependent or an independent variable, depending upon the researcher's discretion. In the first case, the researcher wants to study the effect of gender (being male versus female) on job satisfaction. He might select two groups of male and female employees and then assess their job satisfaction. In the second case, the researcher wants to assess the effect of job satisfaction on performance. Now he might divide employees into 'high job satisfaction' and 'low job satisfaction' groups and then compare their performance to see if they are significantly different.

4) Analysis of data

After data has been collected, the researcher has to make sense out of it using some statistical techniques. A discussion of statistics is beyond the scope of this unit. You have already been introduced to some statistical measures (like mean, standard deviation, correlation, etc.) in Course 4. It would suffice here to say that sound knowledge of statistics is required to analyse and interpret data. The use of computerised packages like SPSS has made this job simpler, but remember the cardinal rule: 'Garbage in, Garbage Out'.

5) Conclusions from research

After the data have been analysed, the researcher draws conclusions. A conclusion may be that 'females are higher on job satisfaction than their male counterparts'. It is not just enough to state a conclusion, but the researcher also attempts to explain why. Whether the conclusions drawn from research can be generalised to a broader population or setting depends upon a number of factors, including the size of sample, whether the sample is representative of the population, and the degree of control in the research method used. Conclusions from research may lead to further statement of problem. The findings from one study influence research problems in future studies.

1.6.2 Methods of Research

We shall briefly discuss some of the major research methods used in I/O psychology in this section.

1) Experimental method

As you might recall from your Course 1 on 'General Psychology', in the experimental method, the researcher manipulates or systematically changes one or more factors (the independent variable) to study its effect on one or more other factors (dependent variable), in controlled conditions. Such experiments may be conducted in the laboratory (lab experiments) or in the naturally occurring organisational settings (field experiments). In a laboratory, the researcher has a high degree of control but less realism, whereas field offers less control but more realism. The choice often is not easy to make.

As an example, suppose we wanted to study the effect of temperature on productivity.

To make this experimental design, we could have two groups of subjects work on an assembly line (task being identical) while being subjected to low (say, 15 degree Celsius) and high temperature (say, 35 degree Celsius). Two weeks later we compare the productivity of the two groups. All conditions other than temperature must be held constant, for instance, the initial performance of the group, the equipment used, nature of work, etc. Statistically speaking, if there is a significant difference between the productivity of the two groups, it may be concluded that temperature effects productivity. This experiment may be conducted in a laboratory on any subjects (even college students, although that might lower the generalisability of findings) or in the actual work setting with real employees. The latter of course depends upon the company's willingness to participate, which is often beyond the researcher's control.

The major advantages of the experimental method are the ability of the experimenter to manipulate the independent variables and to randomly assign subjects to experimental conditions. This leads to drawing conclusions about cause and effect. However, since random assignment of subjects or actual employees is not practical at the workplace, this method is not very popular in I/O psychology. When experimentation can be used with care and caution, however, it can yield results that are unmatched by any other form of research that helps us to answer complex questions about behaviour at the workplace.

2) **Survey method**

The survey method makes use of questionnaires designed to measure how people feel about various aspects of themselves, their jobs, and organisations. Undoubtedly, this is the most popular approach of conducting research in I/O psychology as it is applicable to studying a wide variety of topics reaching a large group of people. For example, if you wanted to study job satisfaction levels of employees, you could administer Job Descriptive Index, a popular scale having five subscales and 72 items, to measure job satisfaction. Questionnaires are also fairly easy to administer (personal interviews, group setting, on phone, email, etc.), readily quantifiable, and statistically analysable.

Questionnaires rely on self-report given by individuals as the basis for obtaining information. This is both strength and a limitation: when people are honest, self-report measures are likely to be accurate. When not (particularly when studying sensitive topics like an employee's intention to quit his job), it may lead to misleading results. Other practical limitations include a low response rate (generally lower than 50%) and difficulty in tapping precisely people's feelings about issues that they are themselves unsure about. Extreme care must be taken in designing survey questions so that they are easy to understand, use simple and unbiased language, and are relatively short.

3) **Qualitative Research Methods**

In contrast to the highly empirical approaches just described, I/O psychologists also use non-empirical, descriptive techniques, relying on what is known as qualitative research. The researchers who employ these methods are basically concerned with retaining the natural quality of the situation: naturalness of the behaviour, the setting and the treatment. Three such methods used are observation, the case method, and the archival method.

Observation is used in I/O psychology when research is directed to overt behaviours, for e.g. nonverbal communication in interview settings. Behaviour is generally observed in natural field settings over prolonged periods of time. Once categories of behaviour

are selected for observation, the researcher must devise specific methods of recording the desired information carefully and accurately. Observation is often a fruitful method for generating ideas that can be further tested with other research methods. For example, if you wanted to find out what effective managers *really* do, one way of doing this could be to observe effective and ineffective managers (as identified by, say their performance appraisal ratings) and come up with categories of behaviours on which differences are found. One potential drawback of this method is that observers can evoke reactive behaviour on the part of those being observed, and the behaviour that is observed may reflect the influence of the observer being in the study. Thus, acceptance and trust of the observer by the study participants is critical to the success of this research method. As a research method, observation is not used very frequently in I/O psychology due to considerable investment of time, energy, and cost.

The case method is a “qualitative research method in which a particular organisation is studied in detail, usually in the hopes of being able to learn about organisational functioning in general” (Greenberg & Baron, 1995, p.38). For instance, a researcher might be interested in studying employee reactions to the bankruptcy of Lehmann Brothers. He might study the organisation’s history leading up to the event and some statistics summarising its aftermath (e.g., number of people who found jobs one month later, etc.). It is easy to see how helpful such detailed accounts of events in organisations summarised in the form of written cases would be to other researchers and lay people attempting to understand such a phenomenon.

Another method used sometimes by I/O psychologists is archival research, which involves using previously collected data or records to answer a research question. For e.g. if you wanted to assess the leadership style of CEOs’ of several companies, one way would be to get them fill up questionnaires. Can you imagine how daunting a task that would be both in terms of permissions and trying to catch them? An alternative method would be to analyse already published interviews of CEOs (I bet you have read several of these in business magazines), the vision/mission statements of the companies, CEO’s speech from the annual reports, etc. to understand their leadership styles. The advantage of using such an approach is that it is unobtrusive and relatively inexpensive. On the other hand, however, the researcher is at the mercy of the original collectors of the material – if they’ve done a poor job, the results of further research will be inconclusive or even misleading.

Each method has its strengths and limitations. The choice of the method chosen usually depends upon the variables under investigation, the expertise of the researcher, a cost-benefit analysis, and other practical considerations.

Self Assessment Questions

- 5) Generally, the research process follows five basic steps in which order:
- Statement of problem-Design-Measurement of variables-Data analysis-Conclusions.
 - Statement of problem- Measurement of variables-Data analysis-Design-Conclusions.
 - Statement of problem- Conclusions-Design-Measurement of variables-Data analysis.
 - Conclusions-Statement of problem-Data analysis- Measurement of variables-Design.

6) The research method that uses self-report given by individuals as the basis for obtaining information is:

(a) Experiment (b) Observation (c) Survey (d) Case method

1.7 LET US SUM UP

In this unit, we have discussed a brief overview of the field of Industrial and Organisational Psychology. In the 1970s, industrial and organisational psychology were recognised as two sub-groups in the field, differing in its scope, orientation and research tradition. Industrial psychology was individual-oriented, while organisational psychology was systems-oriented. Today, the two terms may be used interchangeably (although purists would never permit this) or may be combined into a broader field of Industrial/Organisational psychology. This branch of psychology applies the principles of psychology to the workplace. The major subfields of I/O Psychology are personnel psychology, organisational behaviour, ergonomics, vocational and career counseling, and organisational development.

Psychologists also conduct research at the workplace to solve practical problems, to enhance the organisation's efficiency, and to test a theory. There are five basic steps involved in conducted research: statement of the problem, design of the research study, measurement of variables, analysis of data, and conclusions from research. Some methods of research in I/O psychology include empirical methods like experimentation (both lab and field) and survey; and qualitative methods like observation, case method and archival research.

1.8 UNIT END QUESTIONS

- 1) What are the main tenets of industrial psychology?
- 2) What are the main tenets of organisational psychology?
- 3) Differentiate among various subfields of industrial and organisational psychology.
- 4) Explain the process of research in Industrial/Organisational Psychology.

1.9 GLOSSARY

Job Satisfaction	: A general attitude that individuals hold about their jobs.
Labour Union	: An organisation of wage earners formed for the purpose of serving the members' interests with respect to wages and working conditions.
Marketing research	: Research that gathers and analyses information about the moving of good or services from producer to consumer.
Research	: An attempt to seek information in a scientific and/or systematic manner.
SPSS	: A computer program used for statistical analysis
Sensitivity training	: Psychological techniques and programs designed to improve self awareness and change attitudes

and behaviour of individuals to make them more sensitive to others.

- Team building** : A wide range of activities, usually ranging from simple bonding exercises to complex simulations, for fostering trust, communication and cooperation among members, in order to improve team performance.
- Total Quality Management** : A complete reorganisation of the work process and the workplace to achieve quality consciousness and customer satisfaction.
- Variable** : A symbol that can assume a range of numerical values.

SAQs- Possible Answers

- 1) Industrial psychology may be defined as the application or extension of psychological facts and principles to the problems concerning human beings operating within the context of business and industry.
- 2) Organisational psychology may be defined as the study of the structure of an organisation and of the way in which the people in it interact, usually undertaken in order to improve the organisation.
- 3) Three points of difference between industrial and organisational psychology are scope, orientation and research tradition.
- 4) b: Personnel Psychology
- 5) a: Statement of problem-Design-Measurement of variables-Data analysis-Conclusions
- 6) c: Survey

1.10 SUGGESTED READINGS

Gilmer, B.V.H. (1971). *Industrial and Organisational Psychology*. New Delhi: McGraw-Hill.

Muchinsky, P.M. (2006). *Psychology Applied to Work*, 8th Ed. Belmont, CA: Thompson-Wadworth.

Robbins, S.P., Judge, T.A., & Sanghi, S. (2009). *Organisational Behaviour*, 13th Ed. New Delhi: Pearson-Prentice Hall.

UNIT 2 HISTORICAL PERSPECTIVE OF ORGANISATIONAL AND INDUSTRIAL PSYCHOLOGY

Structure

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- 2.1 Objectives
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 - 2.2.2 Contributions by Psychologists to I/O Psychology
 - 2.2.3 Scientific Management
 - 2.2.4 Modern Approaches
 - 2.2.5 Use of I/O Psychology
 - 2.2.6 How I/O Psychology is Used
 - 2.2.7 Human Relations Movement
 - 2.2.8 Experiments on Illumination
 - 2.2.9 Relay Assembly Test Room
 - 2.2.10 Mass Interviewing Program
 - 2.2.11 Bank Wiring Observation Room
 - 2.2.12 Personnel Counseling
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2.0 INTRODUCTION

If I were to ask you, ‘Is it important to study the functioning of organisations and the behaviour of people at work?’ you might answer, ‘Obviously!’ Well, it was not always so obvious. As a matter of fact, it was not until the early part of the twentieth century that this idea first germinated and only during the last few decades that it gained widespread appeal. A time has come now that the demand for Industrial/Organisational psychologists is increasing rapidly at the workplace. With this increase it is important that you have a general understanding of how I/O psychology came to be and what the future is expecting of Industrial/Organisational psychologists. The historical overview will show how the field of Organisational and Industrial Psychology grew to be what it is today and how some key individuals and events helped shape it.

2.1 OBJECTIVES

After reading this unit, you will be able to:

- List the key people who developed the field of industrial and organisational psychology;
- Describe scientific management;
- Describe human relations movement;
- Distinguish between the main tenets of scientific management and human relations movement; and
- Analyse the recent developments in the field of industrial and organisational psychology.

2.2 HISTORICAL PERSPECTIVE OF INDUSTRIAL / ORGANISATIONAL PSYCHOLOGY

I/O psychology is a relatively recent subfield of psychology. In fact, it did not become fully productive until about hundred years ago. This of course does not mean that people were not trying to understand and predict how other people will behave in work situations; only that it was done in a non-scientific manner and in bits and pieces. The field did not even have a formal name.

Perhaps the first person to use the name ‘industrial psychology’ was W.L. Bryan. In his presidential address to APA, he encouraged psychologists to study “concrete activities and functions as they appear in every day life” (Byran, 1904, p. 80). Although he didn’t cite industry directly, he did encourage these sorts of “real life” applications of a science of psychology. The term ‘industrial psychology’ first appeared in this 1904 article of Bryan’s APA address. Ironically, it appeared in print only as a typographical error. Bryan was quoting a sentence he had written five years earlier in which he spoke of the need for more research in *individual* psychology. Instead, Bryan wrote *industrial* psychology. Fittingly, Muchinsky (1997) regards Bryan, not as the father of IO psychology, “rather...a precursor” (p. 10).

Two other pioneers may be regarded as vital to the formation and development to the field of I/O psychology in the early years. The first was W. D. Scott. He gave a talk to Chicago business leaders on the application of psychology to advertising, which led to books on the topic published in 1903 and 1908. By 1911 he had written two more books (*Influencing Men in Business*’ and *Increasing Human Efficiency in Business*’). He also became the first to apply the principles of psychology to motivation and productivity in the workplace, and was instrumental in the application of personnel procedures within the army during World War I.

The second person, Hugo Munsterberg, considered by many as ‘the father of industrial psychology’, pioneered the application of psychological findings from laboratory experiments to practical matters. In 1913 his book *Psychology and Industrial Efficiency*’ addressed issues of personnel selection, equipment design and using psychology in sales. Munsterberg’s early I/O psychology became influential well into the 1950s. It assumed people need to fit the organisation. I/O psychology therefore largely consisted of helping organisations shape people to serve as replacement parts for organisational machines.

2.2.1 Neoclassical School

In 1924, a change in direction was heralded by the Hawthorne experiments, named after Western Electric Company's Hawthorne plant in Chicago where the studies were conducted. Originally conceived as a test of some aspects of Taylor's principles, the researchers sought the optimal level of illumination necessary for workers to produce telephone equipment. Instead of finding Taylor's assumed "one-best-way," the researchers found that productivity increased after each change in lighting no matter how bright or dim they made it. Eventually, they concluded that the workers were responding to the attention they were getting as part of the special research study and this phenomenon came to be known as the *Hawthorne effect*.

Up to this point, thinking about work organisations had been dominated by classical (i.e., bureaucratic or machine) theory. Workers were viewed as extensions of the job and the aim was to arrange human activity to achieve maximum efficiency. Moreover, these classical views of organisation assumed a top-down management point of view, emphasising the authority structure of the organisation. The object was to get top management's wishes translated into practice on the shop floor. So the task was to design the job according to scientific precepts and then provide an incentive (usually piecework) to get workers to comply with the will of management and the industrial engineers.

Management was no longer the controlling force for the Hawthorne researchers (also called neoclassical theorists). Rather, they argued that management can govern only with consent of the workers and that workers actually influence management decisions by controlling the impression that management had of a proper day's work.

Contemporary I/O psychologists no longer feel they have to choose between classical bureaucratic theory or scientific management on the one hand and neoclassical human relations on the other. The common view today is that taken together, they provide a comprehensive picture of organisational functioning. Environmental forces such as management directives, human capabilities, the state of technology, and economic considerations are potent forces on worker performance and cannot be denied. Likewise, human motivation, perceptions, and job attitudes are influential as well and are ignored at management's peril.

I/O psychologists recognise that there is an inherent conflict between the needs of organisations and the needs of individuals. Organisations seek regularity and so attempt to reduce human behaviour to predictable patterns. That's what organising is. Humans, on the other hand, do not take well to having their behaviour reduced to only those acts required by the job, preferring instead to add spontaneity and expression to the equation. This conflict will never be eliminated, only alleviated. It requires constant, ongoing effort and vigilance to contain the unnatural arrangement we call social organisation.

2.2.2 Contributions by Psychologists to I/O Psychology

Other individuals who contributed to I/O psychology include Yerkes, Cattell and Bingham. I/O psychology made its first significant impact during World War I. Yerkes was influential in getting psychology into the war and proposed ways of screening recruits for mental deficiency and assigning selected recruits to army jobs. They developed Army Alpha (for literates) and Army Beta (for illiterates) test recruits and place them appropriately. Committees of psychologists also investigated soldier motivation, morale, psychological problems of physical incapacity, and discipline. In 1921, Cattell founded Psychological Corporation to promote the usefulness of

psychology to industry. In keeping with the emphasis of industrial psychology on testing, it developed several psychological tests (and still does). Bingham helped develop and refine the field of industrial psychology during World War II. He and his team developed a test, the Army General Classification Test (AGCT), a landmark in the history of group testing. They also worked on other projects like selecting people for officer training, trade proficiency tests and aptitude tests.

While the above three cannot be regarded as chief contributors to I/O psychology, by virtue of their positions (mainly former president of APA), they impacted the field through their contributions, although indirectly. The largest impact on the field of modern day I/O psychology came from two earliest approaches to the study of organisations – Scientific Management and Human Relations Movement. Let us examine them now.

2.2.3 Scientific Management

Scientific Management may be epitomised by the work of Taylor at the Midvale Steel Company in the 1900s. An engineer by profession, Taylor believed that by redesigning the work situation, both higher output for the company and higher wages for the worker could be achieved. In his early years as a foreman in the steel industry, he saw different workers doing the same job in different ways. He felt that each man could not be doing his job in the optimal way, and he set out to find the ‘one best way’ to perform the job. His basic premise proved to be correct and in some instances his methods resulted in productivity increases of 400 percent! In one of the often cited examples of his methods, Taylor showed that workers who handled heavy pig iron could be made more productive through the use of rest pauses. Training employees when to work and when to rest increased average worker productivity from 12.5 to 47.0 tons moved per day (with less reported fatigue). This also resulted in increased wages for them, and reduced costs for the company (from 8.2 cents per ton to 3.9 cents per ton).

In his book ‘Shop Management’ (1909), Taylor explained management’s role in motivating workers to avoid “natural soldiering”, the natural tendency of people to ‘take it easy’. In his ground breaking book ‘Scientific Management’ (1947), Taylor argued that the objective of management was to secure the maximum prosperity for the employer, coupled with the maximum prosperity of each employee.

The basic tenets of Taylor’s theory were:

- 1) Physical work can be scientifically studied to determine the optimal method of performing a job.
- 2) Workers can be made more efficient by prescribing how to do their jobs.
- 3) Workers will be willing to adhere to these prescriptions if paid appropriately. People are primarily motivated by economic rewards (read money) and will take direction if offered the opportunity to better their economic positions.

Many have criticized Taylor’s work for dehumanising the workplace and promoting the idea of an ‘economic man’ (someone who works only for money). There were charges that he inhumanely exploited workers for higher wages and that great numbers of workers would be unemployed because fewer were needed. This was a sensitive topic since unemployment was already high at the time. Despite the controversial nature of his work, in all fairness, it may be concluded that he made major advances in the field by showing that the workplace could be studied and developed scientifically.

Two industrial psychologists were greatly influenced by Taylor – the husband and wife team of Frank and Lillian Gilbreth. They preferred ‘motion study’ to Taylor’s ‘time study’. Their approach, christened as time-and-motion study, consists of reducing the number of motions in performing a task in order to increase productivity. The Gilbreths studied the actions taken by workers at certain task with the aim of streamlining the processes involved. One of their most famous experiments involved analysing the work of bricklayers and significantly reducing the number of motions in laying a brick from 18 to about 5. This change benefited both employer (increased productivity) and employee (decreased fatigue). They developed what they called therblig (‘Gilbreth’ spelled backwards), a classification scheme comprising the basic elements of human motion.

Improving employee productivity was never more important than in the early 20th century, and Gilbreths’ and Taylor’s methods for scientific management of workers was a huge breakthrough. Scientific management movement can be regarded as ground breaking work that forever changed the way people viewed jobs and the workplace design. Its modern age parallel may be found in the sub field of ergonomics/engineering psychology.

Somewhat along the lines of scientific management, some other individuals also contributed to the field, although using a slightly different approach. Whereas scientific management focused on the productivity of individuals, their approach (termed the classical administrative approach or classical organisational theory) concentrated on efficient structuring of overall organisations rather than organisation of individual work methods. Two theorists who deserve a special mention are Weber and Fayol.

Max Weber (1864-1920), a German sociologist, proposed a nonpersonal, objective form of organisation called ‘**bureaucracy**’. He suggested organisations develop comprehensive and detailed standard operating procedures for all routinized tasks. According to him, a bureaucracy needs to maintain complete files and record all its activities (Today when you think of a bureaucracy, it is this connotation of endless files doing the rounds that may be coming to your mind). Weber also recommended dividing organisations into a well-defined hierarchy, establishing strong lines of authority and control.

Henri Fayol, a French mining engineer, developed a general theory of management (1949), independent of Taylor’s scientific management. He proposed that there are six primary functions of management: forecasting, planning, organising, commanding, coordinating, and controlling; and fourteen principles of management (for a detailed account of these principles go to http://en.wikipedia.org/wiki/Henri_Fayol). Fayol’s work appears to have stood the test of time and has been shown to be relevant to contemporary management.

During World War II, psychologists contributed heavily to the military by developing the Army General Classification Test for the assessment and placement of draftees, as well as specific skills and ability tests, and leadership potential tests. Psychologists also conducted studies of accidents and plane crashes (which led to the field of engineering psychology), morale, and soldier attitudes.

Following World War II, I/O psychology emerged as a specifically recognised specialty area within the broader discipline of psychology. And even within I/O psychology, subspecialties emerged such as personnel psychology, engineering psychology, and organisational psychology. In the late 1950s and into the 1960s, a renewed thrust toward studying organisations with psychological precepts emerged as social

psychologists and I/O psychologists gained the conceptual tools needed to model and understand large, task oriented groups including work organisations. From this line of inquiry came the work of I/O psychologists in assessing the effects of organisational structure and functioning on employees. Related applications appeared under the rubric of *organisation development* (e.g., participative management, socio-technical systems, self-managing work groups, team building, survey feedback, and related approaches).

2.2.4 Modern Approaches

Contemporary I/O psychologists no longer feel they have to choose between classical bureaucratic theory or scientific management and neoclassical human relations. The common view today is that taken together, they provide a comprehensive picture of organisational functioning. Environmental forces such as management directives, human capabilities, the state of technology, and economic considerations are potent forces on worker performance and cannot be denied. Likewise, human motivation, perceptions, and job attitudes are influential and are ignored at management's peril.

I/O psychologists recognise that there is an inherent conflict between the needs of organisations and the needs of individuals. Organisations seek regularity and so attempt to reduce human behaviour to predictable patterns. Humans, on the other hand, do not take well to having their behaviour reduced to the acts required by a job, preferring to add spontaneity and expression to the equation. This conflict will never be eliminated, only alleviated. It requires constant, on-going effort and vigilance to contain the unnatural arrangement we call social organisation.

The most recent major thrust in I/O psychology began in the 1970s following court decisions interpreting the 1964 Civil Rights Act. The courts placed a heavy burden on employers to defend the validity (i.e., job relevance) of their recruiting, selection, and promotional procedures. Many employers concluded that complying with this and subsequent anti-discrimination legislation required the skills of I/O psychologists as their best defense against lawsuits brought by employees who claimed they were victims of illegal employment discrimination. Evidence of the validity of selection criteria as provided by I/O psychologists is often essential in defending against charges of civil rights violations brought by government or employees against employers.

2.2.5 Use of I/O Psychology

According to a 1997 membership survey of the Society for Industrial-Organisational Psychology, nearly two-thirds of U.S. I/O psychologists are employed by academic institutions and consulting firms. Employment at consulting firms has been the growth category in the profession, while the percentage of I/O psychologists employed by academia and private organisations has declined somewhat. About 15 percent work for private companies, and the rest work at government agencies or other organisations.

Large organisations are the primary users of I/O psychological methods, either directly by employing an I/O psychologist's services or indirectly by using information from the field (e.g., published articles, books, seminars). Numerous large American corporations such as AT&T, IBM, Unisys Corp., General Motors Corp., Ford Motor Co., PepsiCo, Inc., to name just a few, maintain a staff of I/O psychologists.

Many other companies regularly use I/O psychologists as consultants on an as-needed basis. I/O psychologists are also employed by government. The federal Office of Personnel Management has an active test development program for civil service test construction, and all branches of the military employ I/O psychologists

to conduct research and applications in leadership, personnel placement testing, human factors, and for improving motivation and morale.

The U.S. Army Research Institute is an example of one such military agency. State and municipal governments also employ psychologists, especially for personnel selection purposes in the context of local civil service requirements. Abroad, I/O psychology is widely employed in England, Australia, Germany, Japan, and China.

In these various settings, the most common activities of I/O psychologists are in the areas of personnel selection and performance appraisal; management, leadership, and organisational psychology; motivation and employee satisfaction; and training and development.

2.2.6 How I/O Psychology is Used

In the process of diagnosing an organisation's problems, recommending or implementing changes, and evaluating the consequences of those changes, contemporary I/O psychologists employ one or more of four non-mutually exclusive emphases in addressing:

- i) *Personnel psychology*: Personnel psychology is concerned with individual differences and therefore deals with all aspects of recruiting and selecting personnel.
- ii) *Training*: Training is applying the principles of human learning to teaching employees skills, techniques, strategies, and ideas for improving their performance.
- iii) *Motivation and leadership*: This deals with incumbent employees and seeks to create an environment that provides employees with a clear view of what they are supposed to accomplish and promotes the creation of conditions conducive to encouraging people to give their best.
- iv) *Engineering psychology*: The engineering psychologist addresses the human problems of organisation through the design of machinery and tools that take human limitations specifically into account.

2.2.7 Human Relations Movement

The second major step on the way to the current field of I/O psychology was the Human Relations Movement that began in the 1920s. Popularised by Elton Mayo and his now famous Hawthorne Studies, in many ways it may be treated as the foundation of our field as it now exists. Ironically however, the initial experiments were inspired strongly by the physical orientation of the scientific management.

In 1927, a series of experiments were undertaken by researchers from Harvard University at the Hawthorne Plant of the Western Electric Company near Chicago. Although they seemed to be initially of minor scientific significance, they became classics in industrial psychology, and hence we shall study them in detail. The Hawthorne Studies can be divided into five major parts:

2.2.8 Experiments on Illumination

The first set of five studies investigated the effect of illumination on productivity of female employees in three selected departments: inspection of small parts, assembly of department relays, and winding coils. The researchers installed various sets of lights in the workrooms. In some cases, the light was intense; in others, it was reduced considerably. While the control group worked under a constant intensity of 10 foot candles, the experimental group began with 10 foot-candles, and intensity

was gradually reduced by 1 foot-candle per period until they were working under only 3 foot candles. Bizarrely, productivity increased in both conditions. Employees seemed to be responding positively to the novelty of the situation and were motivated by the desire to please the researchers (the Hawthorne effect). The results of this study were so inexplicable that the researchers concluded that some other factors must be responsible for productivity. This led to the other four studies.

2.2.9 Relay Assembly Test Room

The second study aimed to investigate the effect of variables like rest pause, length of the working day, free lunch, and method of payment on productivity. Greater control was exercised by using a small group of employees in a separate room (similar in work layout, chairs, fixtures, etc. to those in the regular department) away from the regular working force. The variation in the conditions again produced extremely puzzling results: each test period had higher production records than the preceding one! The experimenters were perplexed by the general trend toward increased production independent of rest pauses and shorter hours and by the improved mental attitudes of the girls. They realised that they had “not studied the relation between output and fatigue, monotony, etc., but had performed a sociological and psychological experiment. By trying to control variables they had introduced a new one, a social situation that involved changed attitudes and interpersonal situations” (Blum & Naylor, 1968, p. 315). This led to the next study.

2.2.10 Mass Interviewing Program

In Study 3, the emphasis shifted from a study of changes in environmental work conditions to a study of attitudes concerning human relations. The interviewing program was launched in the inspection branch, in which about 1600 workers were employed. Three men and two women supervisors were chosen to conduct the interviews in order to gain information about worker attitudes about working conditions, supervision, and job. Each of these headings had two subclassifications – likes and dislikes. Employees were found to benefit psychologically merely as a result of being interviewed. However, it was also found that employees reacted differently to the same surroundings (something that appears so obvious today, isn't it? But remember this was the time when people were treated like identical machines). Further, they were responding as part of the social organisation of the group in which they worked and in relation to their position in this group. There was also evidence of the development of informal personal leadership in these groups, which led to the fourth study.

2.2.11 Bank Wiring Observation Room

Study 4 attempted to obtain more exact information about existence of social groups within the company. 14 male operators were selected to work under standard shop conditions. They were observed and interviewed over a period of six and a half months. The observer was asked to note the formal organisation of supervisor and employees, and also all informal groupings of the men. In the first week, the men appeared to be working all the time and were cautious towards the observer. It turned out that the employees feared that because they were being studied, the company was eventually going to raise the amount of work they were expected to do each day. To guard against the imposition of unreasonable benchmarks, the men agreed among them to keep the output low, even though it meant earning less individually (Taylor can go take a walk!). Further, an intricate social organisation emerged to protect the group both inside and outside. Control inside was obtained through ridicule, sarcasm, and ‘bingeing’ (unpleasant but not harmful physical blows).

Protection outside was afforded by excessive day-work claims and production remaining constant. Informal rules were: (a) you should not turn out too much work (rate buster), (b) you should not turn out too little work (chiseler); (c) you should not tell a supervisor anything that would harm an associate (squealer); and (d) you should not act officiously. The foreman and the top management were naturally unaware of the reasons for the failure of the financial incentive. Contrary to results of study 1 where productivity rose, this study revealed output restriction.

2.2.12 Personnel Counseling

Study 5 had two objectives. First, to diagnose the problems of employees and work with supervisors on their method of supervision; and the second was to improve the method of communication within the company. (You may note here that these two objectives are far removed from the principles of scientific management, which is what Hawthorne Study began with). The program was generally accepted and led to improvement in three areas: personal adjustments, supervisor-employee relations, and employee-management relations.

In 1933, Mayo made the first significant call for the human relations movement in his interim report on the Hawthorne studies. The Hawthorne studies showed the importance of informal work groups and their effects on production, the importance of employee attitudes, the value of having a sympathetic and understanding supervisor, and the need to treat people as people instead of merely human capital. Of course, there were several methodological flaws. For instance, Study 1 was done only on females, while Study 4 on males raising doubts about generalisability across genders. It is possible that the vast difference between the Bank Wiring Observation Room and the Relay Assembly Test Room results were caused by the fact that one group was male and the other female. Further, no attempt was made to ensure that the employees chosen for study were representative of all those in the factory. Despite the criticisms, Hawthorne studies “are regarded as the greatest single episode in the formation of industrial psychology” (Muchinsky, 1997, p. 18). Instead of approaching the problem only from the economic or efficiency point of view that had dominated the field until then, it was shown that the noneconomic, social factors operating in the workplace are just as important- perhaps more so!

The basic tenets of human relations movement:

- 1) Individual work behaviour is determined by a complex set of factors. Man is not just a rational, logical being (as supposed by Taylor), but also an emotional, non logical being who often reacts unpredictably to his work environment.
- 2) The workplace must be seen as a social system not just a productive system.
- 3) Including workers in decision making process can reduce resistance to change.

Other theorists (for instance, Drucker, Ford, and others) also in keeping with human relations movement emphasised the behavioural side of management. Peter Drucker, a well-known management guru of modern times, as early as 1946, envisaged a ‘business’ as an ‘organisation,’ that is, as a social structure that brings together human beings in order to satisfy economic needs and the wants of a community. He predicted the ‘end of economic man’ and advocated the creation of a ‘plant community’ where individuals’ social needs could be met. In his landmark *The Practice of Management* (1954), Drucker proposed Management by Objectives (MBO) as a philosophy of management that balances a variety of needs and goals, rather than subordinating an institution to a single value.

Thus, the influence of the human relations philosophy can be seen till date in the field of I/O psychology.

2.3 ORGANISATIONAL AND INDUSTRIAL PSYCHOLOGY IN THE PRESENT ERA

The history of I/O psychology as seen above is rich and diverse. Our history, although relatively brief, is made up of different traditions and thoughts that have impacted our field as it exists today. The different subfields of I/O psychology (as seen in Unit 1) are a reflection of these varying influences.

The field of I/O psychology has made rapid advances in many areas (Refer Figure 2.1).

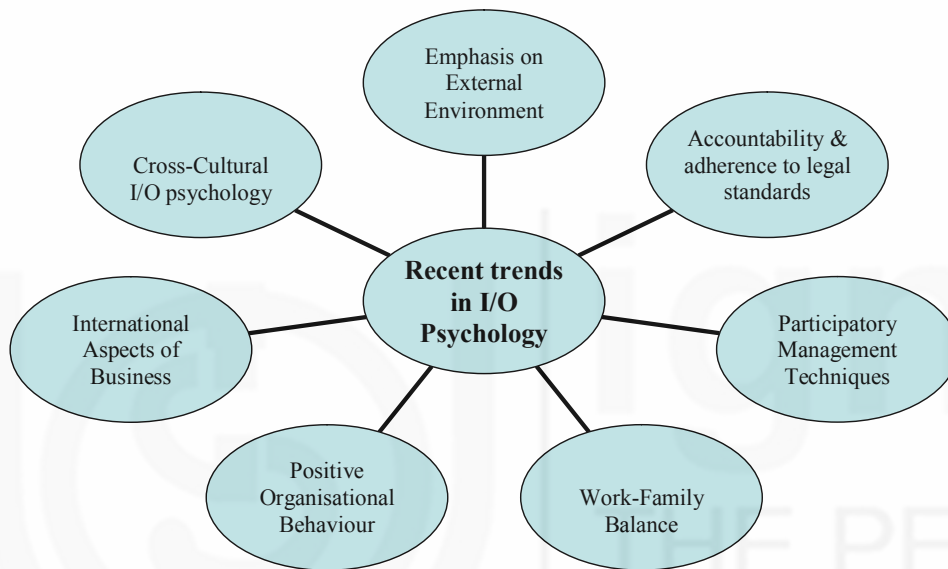


Fig. 2.1: Current trends in I/O Psychology

2.3.1 Recent Trends in I/O Psychology

The recent trends in I/O psychology can be described as given below:

Today I/O psychologists are paying greater attention to the effects of the external environment, for instance, the wider society, governmental and international developments.

There is greater adherence to legal standards and emphasis on accountability (at least in the West). Post 1950s, as an indirect result of the civil rights movement, discrimination in employment became an important issue on which companies could be sued. As a result, companies were legally mandated to demonstrate that their practices such as selection, training, performance appraisal, etc. did not discriminate.

A relatively new area is sexual harassment. The first ruling by U.S. Supreme Court on subject of sexual harassment was delivered in 1986. In India, it was in 1997 in the landmark case of Vishaka vs. State of Rajasthan and others, that sexual harassment was identified as a separate illegal behaviour. All this has led to the need for greater accountability for the actions of I/O psychologists.

In the late 1980's, the field of I/O Psychology witnessed a rise of participatory management techniques known by such terms as Total Quality Management (TQM),

2.3.2 Continuous Quality Improvement (CQI)

Continuous quality improvement and Continuous Process Improvement (CPI) are important development in the field of I/O Psychology.

In the late 1980s and into the 1990s, work stress started receiving increasing attention in I/O research, theory, and practice. Balancing work and family lives also received increased attention in I/O research.

A new area that is emerging in the field of I/O psychology (more specifically the subfield organisational behaviour) is positive organisational behaviour. This simply refers to application of positive psychology to the workplace. Its advocates include Luthans (2002), Nelson and Cooper (2007). This includes positive topics such as forgiveness, compassion, resilience, optimism, emotional intelligence at the workplace.

There is increased consideration to the international aspects of business. The world has shrunk and transformed itself into the proverbial ‘global village’. As a result organisations now operate in more than one country, and the number and size of multinationals that span national boundaries has seen a phenomenal increase in the twentieth century. Managers of multinationals confront a number of challenges that they never had to face when their operations were constrained within national borders. This has opened new vistas for the field of I/O psychology.

Another recent development in the field is examining the cross-cultural factors in work behaviour as necessitated by recent mergers and acquisitions across borders and the cultural diversity of the new workforce (cross-cultural I/O psychology).

2.3.3 Workforce and Workplace Fit

Today, the mandate of I/O Psychology is indeed daunting: “to increase the fit between the work force and the workplace at a time when the composition of both is rapidly changing” (Muchinsky, 1997, p. 22). This poses tremendous challenges to I/O psychologists, especially because it is a relatively new field and people are still trying to learn more about people in the workplace. The future of I/O Psychology indeed promises to be extremely rewarding and exciting.

2.4 LET US SUM UP

In this unit, we have discussed a brief historical overview of the field of Industrial and Organisational Psychology. The field of I/O psychology is relatively new. Three pioneers who attempted to apply psychology to the workplace were Bryan, Scott and Munsterberg.

Two influential forces in the development of I/O psychology were scientific management and human relations movement. The former approach, used by Taylor and Gilbreths, emphasised the importance of designing jobs as efficiently as possible. The latter, popularised by the work of Mayo and his path breaking Hawthorne studies, recognised the importance of social processes in work setting. The future of I/O psychology is challenging since both the workplace and workforce are changing rapidly.

2.5 UNIT END QUESTIONS

- 1) Discuss the role of scientific management in the evolution of I/O psychology.
- 2) Discuss the relevance of Hawthorne studies in shaping the current field of I/O Psychology.

- 3) Trace the historical developments in the field of Industrial/Organisational psychology, with special emphasis on current trends in the field.

2.6 GLOSSARY

- Bureaucracy** : An organisational design, usually for large organisations, having a clear hierarchy of authority in which people are required to perform well-defined jobs.
- Classical organisational theory** : An early approach to management that was concerned with the most efficient way the Hawthorne effect.
- Continuous Process Improvement (CPI)** : An ongoing sustainable effort to incrementally improve how products and services are provided and internal operations are conducted.
- Continuous Quality Improvement (CQI)** : A management approach to improving and maintaining quality that focuses on internally driven and relatively continuous assessments of potential causes of quality defects followed by suitable action.
- Cross-cultural I/O psychology** : A recent field of I/O psychology that takes a cross-cultural perspective on employees' behaviour in organisations.
- Hawthorne Effect** : Change in behaviour following the onset of a novel treatment (new or increased attention); as novelty dissipates, effect eventually wears off (behaviour returns to original).
- Positive Organisational Behaviour** : “The study and application of positive oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, p. 59)
- Soldiering** : Working at a much slower pace than the one of which a person is capable.
- Time-and-motion study** : A “type of applied research designed to classify and streamline the individual movements needed to perform jobs with the intent of finding ‘the one best way’ to perform them” (Greenberg & Baron, 1995, p. 18).
- Total Quality Management (TQM)** : An organisational strategy with accompanying techniques that deliver quality products and/or services to customers.

2.7 SUGGESTED READINGS

Blum, M.L. & Naylor, J. C. (1968). *Industrial Psychology: Its Theoretical and Social Foundations*. New York: Harper & Row.

Greenberg, J. & Baron, R.A. (2003). *Behaviour in Organisations: Understanding and Managing the Human Side of Work*, 8th Ed. New Delhi: Prentice Hall of India



UNIT 3 INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY AS RELATED TO OTHER DISCIPLINES

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 I/O Psychology: A Multidisciplinary Approach
 - 3.2.1 I/O Psychology and Psychology
 - 3.2.2 I/O Psychology and Social Psychology
 - 3.2.3 I/O Psychology and Sociology
 - 3.2.4 I/O Psychology and Anthropology
 - 3.2.5 I/O Psychology and Economics
 - 3.2.6 I/O Psychology and Political Science
 - 3.2.7 Other Disciplines Also Use I/O Psychology Concepts
- 3.3 Let Us Sum Up
- 3.4 Unit End Questions
- 3.5 Glossary
- 3.6 Suggested Readings and References

3.0 INTRODUCTION

As you would've understood by now, the aim of I/O psychology is to understand and explain the behaviour of organisations and the people within them. In order to this, I/O psychology draws heavily on concepts and theories from other disciplines, particularly social sciences, and applies these to an organisational setting. The reverse is also true: the key concepts of I/O psychology are increasingly being used by other disciplines. I/O psychology, as it faces the effects of organisations on individual goals and individual perceptions of the environment, is truly multidisciplinary. In this unit, we will examine the field of I/O psychology as related to other disciplines.

3.1 OBJECTIVES

After reading this unit, you will be able to:

- Appreciate the multidisciplinary nature of I/O psychology;
- Describe the contributions of psychology and social psychology to I/O psychology;
- Describe the contributions of other social sciences – sociology, anthropology, economics, and political science – to I/O psychology; and
- Summarise the concepts of I/O psychology used by other disciplines.

3.2 I/O PSYCHOLOGY: A MULTIDISCIPLINARY APPROACH

I/O psychology is built on contributions from a number of behavioural sciences. The behavioural sciences include a number of disciplines, such as sociology, political science, anthropology, economics, and of course psychology. The contributions of psychology have been mainly at the individual or micro level of analysis, while the other disciplines have contributed to our understanding of macro concepts such as group or organisational processes. Other specialties that are closely related to the behavioural sciences have also had an impact on industrial psychology. These are management engineering, industrial design, industrial administration, and labour relations. Differences among behavioural sciences are not always clearly demarcated. The same phenomenon is sometimes studied by more than one discipline, each bringing its own unique concepts and theories, and thus there are often several competing explanations of the same phenomenon. This also does not mean that the findings and explanations stay separate in discreet compartments. Sometimes scholars working in the area integrate the findings to produce a more comprehensive explanation. The major disciplines involved and their primary areas of focus are shown in Table 1.

**Table 1: Major Social Science Disciplines involved in I/O psychology
(From Rollinson & Bradfield, 2002, p. 19)**

Social Science Discipline	Organisational phenomena of interest
Individual Psychology	Individual differences, intelligence, personality, aptitude, motivation, learning, perception
Social Psychology	Group Dynamics, attitudes, leadership
Sociology	The organisation as a social system, socialisation of organisational members, structures, cultures, communication
Social anthropology	Culture and its effects on behaviour
Politics	Power, decision making, conflict, the behaviour of interest groups, coalitions, control
Economics	Labour markets, product markets and their influence as part of organisational environment

Let us now examine the contribution of other disciplines to the field of I/O Psychology.

3.2.1 I/O Psychology and Psychology

Psychology as you know is the science that seeks to measure, explain, and sometimes change the behaviour of humans and other animals. Psychologists are primarily concerned with studying and attempting to understand individual behaviour. As long as I/O psychologists are interested in studying *behaviour* of people at the workplace, the influence of psychology can be seen clearly. Psychology contributes most to individual-level processes. It explains how, for e.g. individual employees perceive their jobs, respond to others, learn the skills to perform their jobs, opt for job security over money, and so on. How they work and relate to others also depends on their beliefs about themselves, what their needs are, how satisfied they are, etc.

I/O psychology borrows heavily from a number of fields within psychology itself, utilising the facts, theories, and methods of experimental, social, cognitive, counseling, and clinical psychology. Early I/O psychologists concerned themselves with the problems of fatigue, boredom and other factors relevant to working conditions that could interfere with effective work performance. The experimental method of psychology teaches us to define the problem concretely, frame hypotheses, vary certain aspects in the conditions while holding others constant collect, and analyse data and verify/reject our hypotheses. This lends scientific rigour to the field of I/O psychology. The influence of clinical and counseling psychology can be seen in attempts of I/O psychologists to study issues of mental health and more recently stress at the workplace. The field of I/O psychology has expanded to include learning, perception, thinking, problem solving, and information processing, clearly depicting the influence of cognitive psychology. The fundamental concepts of psychology, such as personality, intelligence, aptitude, individual differences, emotions, needs and motivational forces, etc. have also been borrowed to the study of individuals at the work place.

3.2.2 I/O Psychology and Social Psychology

Social psychology is a subfield of psychology that studies the behaviour of the individual in a social context that includes other people as individuals, other people as organised systems such as groups, and the broader culture. It is in its second sense that brings it closest to I/O psychology. In the 1940s, the field of I/O psychology (then largely industrial psychology) added concern for the social factors at the workplace. This may be attributed in part to the interests shown by social psychologists (for e.g. Arygyris, Lewin, Sherif) in developing some scientific understanding of the nature of modern organisations.

The most notable contribution of social psychology to I/O psychology lies in the 'open systems approach' to conceptualise organisations, given by two prominent social psychologists, Katz and Kahn (1966). Open system refers to a continuous inflow and outflow of energy through permeable boundaries. In I/O psychology terms, the boundaries of an organisation are permeable to the external environment (social, economic, legal, technical, and political). The simplest open system can be depicted as:

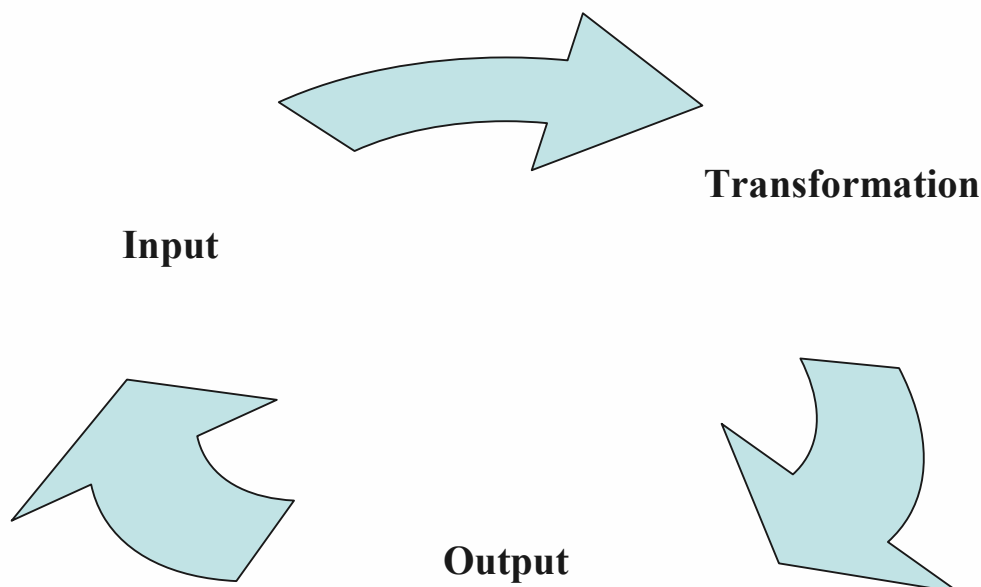


Fig. 3.1: Open Systems Approach

The open systems approach to organisation thus assumes that organisations operate in a self-sustaining manner, transforming inputs into outputs in a continuous manner. Specific examples of inputs into a business organisation include monetary, material, information, and human resources. The processes (e.g., training or manufacturing), transform the input into the output. Output is represented by the product, result, outcome, or knowledge of the system. This output gets transformed back to input and the cycle continues.

Let us consider an example to illustrate this. As a productive system, a firm depends upon its environment to provide inputs, say labour and material. This then transforms by say, the process of manufacturing, to produce outputs, goods and services. This in turn depends on the environment (e.g. satisfaction of customers/investors) to accept. The inputs from and outputs to the environment come from and go to different subsystems in the environment: The biggest contribution of the open systems approach to I/O psychology was the realisation that no social structure is self sufficient or self contained. An organisation is certainly open to its larger external environment making its nature very dynamic.

Another important area that has received considerable attention from social psychologists is change and change management. Further, social psychologists have made significant contributions in the areas of measuring, understanding and changing attitudes, communication patterns, leadership, building trust, group behaviour, and the like.

3.2.3 I/O Psychology and Sociology

While psychology focuses on the individual, sociology studies people in relation to their social environment or culture. Sociologists are interested in the individual and group, but generally within the context of larger social structures and processes, such as social roles, class, gender, and socialisation. Sociologists have contributed to the field of I/O psychology through their study of group behaviour in organisations, particularly formal and complex organisations. From a sociological perspective, organisations are conceptualised as the totality of inter-connected positions, each having a set of roles that are defined by the rights and duties vested in the positions. Employees often play their respective roles by negotiating their idiosyncratic needs, preferences, attitudes and expectations. The conceptualisation of organisation as a social system can be traced back to sociology (perhaps even before social psychology).

Sociologists use a combination of quantitative methods and qualitative research designs which have also been often used by I/O psychologists. Most importantly, sociology has contributed to the research on organisational culture, socialisation of organisational members, structures, formal organisation theory, organisational technology, and communication analysis. In fact, a separate sub field of sociology termed industrial sociology, or the sociology of work, has emerged recently. This field examines the direction and implications of trends in change, technological, global, and organisational; and the extent to which these trends are intimately related to changing patterns of inequality in modern societies.

3.2.4 I/O Psychology and Anthropology

Very broadly, anthropology is the study of humankind. More narrowly, it is the study of societies to learn about human beings and their activities. Anthropology's basic concerns are "What defines modern *Homo sapiens*?", "How do humans behave?",

“Why are there variations and differences among different groups of humans?”, “How has the evolutionary past of *Homo sapiens* influenced its social organisation and culture?” and so on.

Anthropologists’ work on cultures and environments has helped us understand differences in fundamental values, attitudes, and behaviour among people in different countries and even within different organisations. Anthropology enriches I/O psychology by contextualising it in a cultural frame. Just like a societal culture, organisations too have a culture that is a socially constructed, unseen, and unobservable force behind organisational activities.

Much of our current understanding of organisational culture, organisational environments, and differences between national cultures is a result of the work of anthropologists or those using methods borrowed from anthropology. One such research method used in I/O Psychology is ethnography. Ethnographers study groups and/or cultures over an extended period of time through observer immersion into the culture or group. I/O research on organisational culture research has employed ethnographic techniques and participant observation to collect data.

Given the pervasive influence of culture on human behaviour, it is no surprise that culture would also influence behaviour at the workplace. I/O psychologists have turned their attention towards examining how cultural factors influence work behaviour. This new branch is referred to as cross-cultural I/O Psychology. The goal of cross-cultural I/O psychologists (for e.g., Erez, Triandis, etc.) is to look at both universal behaviours and unique behaviours to identify the ways in which culture impacts behaviour at the workplace. Factors such as cultural diversity of the workforce, the competitive global market, mergers and acquisitions, and emergence of high technology and telecommunication systems (most notably email) have accelerated the need for awareness of cultural differences in proposing solutions to problems of work behaviour. Values and customs prevalent in our society do not necessarily generalise to other cultures, and vice-versa. The very nature and meaning of work is not universal: what constitutes satisfying work differs across cultures. The roots of this relatively new specialty of I/O Psychology can be seen clearly in anthropology.

The subfield of anthropology, social anthropology, that studies how contemporary living human beings behave in social groups has also contributed to the field of I/O Psychology. Practitioners of social anthropology investigate, often through long-term, intensive field studies, the social organisation of a particular person (Note that the focus of psychology would’ve been the person himself).

3.2.5 I/O Psychology and Economics

The Wikipedia defines economics as the “the social science that studies the production, distribution, and consumption of goods and services”. Economics touches on behaviour as it deals with the making and distribution of goods, market analyses, and predictions of what people may do next in buying stocks and bonds. The organisational phenomenon of interest that have come from economics are labour markets, product markets and their influence as part of organisational environment (you may recall economic environment as part of the larger organisational environment in conceptualising an organisation as an open system).

The influence of economics on the field of I/O Psychology can be most strongly seen in the area of decision making. The origins of the rational choice models of decision making (which prescribe what decision makers should do if they behave in a rational

way) lie in the economic theory of expected utility. Not surprisingly, an alternative descriptive model of decision making (which identifies processes actually used by decision makers) – the bounded rationality model – has been proposed by Simon, an economist. Simon was even awarded a Nobel Prize for his research on decision making- in economics!

In the 1960s with the advent of cognitive psychology, psychologists (such as Edwards, Tversky and Kahneman) began to compare their cognitive models of decision-making under risk and uncertainty to economic models of rational behaviour. They (Kahneman & Tversky, 1973) suggested that people often make decisions based on approximate rules of thumb, termed heuristics, not strict logic.

Another notable application of a concept originally from economics that found its way in psychology is the game theory. Game theory studies strategic situations where players choose different actions in an attempt to maximize their returns, given the strategies the other players choose. First developed as a tool for understanding economic behaviour by John von Neumann, game theory has also been used as a psychological model to explain much of human real-life behaviour.

Activity

One interesting game is the Prisoner's Dilemma, in which the dilemma is between cooperating versus competing. Try your hand and see if you can beat the computer: play Prisoner's Dilemma by going to <http://serendip.brynmawr.edu/playground/pd.html>

3.2.6 I/O Psychology and Political Science

Political science is concerned with the theory and practice of politics and the description and analysis of political systems and political behaviour. Political scientists study matters concerning the allocation and transfer of power in decision making, the roles and systems of governance, political behaviour, and public policy. Political science is closely related to industry through its studies of institutionalised governments. But, it is the domain of political behaviour in organisations that brings political science most close to I/O Psychology.

Political science conceptualises organisations as political systems where individuals and groups are engaged in a continuous struggle to gain greater access to valued resources and positions of power to serve their individual (and sometimes group interests). According to this perspective, all individual, group and organisational-level processes are essentially political and involve power play. Since political activity is pervasive, psychologists have also turned their attention towards understanding organisational politics and political tactics. Thus, power, organisational politics and conflict are areas clearly influenced by political science. Organisational politics deals with the study of what people do in organisations to acquire and maintain power and other resources to obtain one's preferred outcome.

More recently an interdisciplinary field dedicated to the relationship between psychology (not I/O psychology) and political science- political psychology- has emerged. This focuses on the role of human thought, emotion, and behaviour in politics, i.e. 'the psychology of politics'. Some of this work enhances understanding of political phenomena by applying basic theories of cognitive processes and social relations that were originally developed outside of the domain of politics, clearly stressing the dynamic interface between psychology and political science.

3.2.7 Other Disciplines also Use I/O Psychology Concepts

On the other side, increasingly other disciplines are employing concepts from I/O psychology. Somewhat surprisingly, the use of soft concepts of I/O psychology is not restricted to disciplines like marketing and business administration, but also economics. Of the business disciplines, perhaps it is marketing that has the closest overlap with I/O psychology. One of the primary areas of marketing is consumer research, and trying to predict consumer behaviour is not that different from trying to predict employee behaviour. Consumer behaviour involves the psychological processes that consumers go through in recognising needs, finding ways to solve these needs, making purchase decisions, and actually purchasing a product. In fact, consumer behaviour is nothing but ‘the psychology of marketing’. Consumer research is often required to ensure that companies produce what customers really want and not what they think customers want.

The influence of psychology on economics has been responsible for a view of human behaviour that calls into question the assumption of complete rationality, the acceptance of experiments as a valid method of economic research, and the idea that utility or well-being can be measured (Frey & Stutzer, 2007). This new subfield- behavioural economics- uses social, cognitive and emotional factors in understanding the economic decisions of individuals and institutions performing economic functions, including consumers, borrowers and investors; and their effects on market prices, returns and the resource allocation. Behavioural finance and economics rests as much on social psychology within large groups as on individual psychology. Cognitive biases may have strong effects particularly if there is social contagion of ideas and emotions (causing collective euphoria or fear) leading to phenomena such as groupthink. You can pause for a moment here and think of how collective euphoria after a ‘good budget’ leads to a bull run in the stock market.

As a matter of fact, the subfields of I/O psychology are not just related to each other but also have found their way in management studies. For instance, organisational behaviour (OB) is more frequently taught to students of business and management than to anyone else, with the presupposition that those who want to make their careers in organisations should understand the complexities of human behaviour. Figure 3.2 shows the relationships between some disciplines within I/O psychology (Luthans, 2005, p. 20).

	MACRO	MICRO
THEORETICAL	OT (Organisation Theory)	OB (Organisational Behaviour)
APPLIED	OD (Organisation Development)	HRM (Human Resource Management)

Fig. 3.2: Relationships between Organisational Behaviour to Other Disciplines

As you can see from Figure 3.2, OT tends to be more macro-oriented than OB and is concerned primarily with organisational structures and design. OD, on the other hand, tend to be more macro and applied than OB. HRM tend to have a more applied focus than OB. The human resource management function is a part of practicing organisations just as marketing, administration, or finance. Closely related to personnel psychology, HRM is the strategic and coherent approach to the management of ‘human resources’, i.e. people working in the organisation.

It is important to note that as any field becomes multidisciplinary, the lines between various disciplines increasingly become blurred as researchers draw from common disciplines to explain behaviour.

3.3 LET US SUM UP

In this unit, we have discussed the field of Industrial and Organisational Psychology as related to other disciplines. While other disciplines have contributed to I/O psychology, it is equally true that the concepts of I/O psychology are also used by other disciplines. I/O psychology is built on contributions from a number of behavioural disciplines, such as psychology, social psychology, sociology, anthropology, economics, and political science. The contributions of psychology have been mainly at the individual or micro level of analysis, while the other disciplines have contributed to our understanding of macro concepts such as group or organisational processes. Increasingly other disciplines are employing concepts from I/O psychology, such as consumer research (marketing), behavioural economics (economics), and organisational behaviour (management).

By understanding how businesses are organised, how they are managed, the wider economic environment, complexities of politics and power struggles at the workplace, we get a wider view of how I/O psychology is related to other disciplines.

3.4 UNIT END QUESTIONS

- 1) How can you relate the I/O Psychology to Social Psychology?
- 2) Write two contributions of I/O Psychology in Anthropology.
- 3) How can you see the influence of economics in the field of I/O Psychology?

3.5 GLOSSARY

- Change Management** : A systematic and proactive approach to adapting to change, controlling change, and effecting change, both from the perspective of an organisation and on the individual level.
- Consumer Research** : Marketing research that yields information about the motives and needs of different types of consumers. It also helps buyers get information that will help them make decisions and plans for future purchases.
- Culture** : Many characteristics of a group of people, including attitudes, behaviours, customs and values that are transmitted from one generation to the next (Matsumoto, 2000).
- Groupthink** : “A mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members’ strivings for unanimity override their motivation to realistically appraise alternative courses of action” (Janis, 1972, p. 9)

- Industrial Sociology** : The study of social relationships and structures in industrial organisations.
- Open system** : A continuous inflow and outflow of energy through permeable boundaries.
- Organisational Culture** : The commonly held and relatively stable beliefs, attitudes and values that exist within the organisation. (Williams et al., 1993)

3.6 SUGGESTED READINGS AND REFERENCES

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UNIT 4 HUMAN FACTORS IN INDUSTRIAL AND ORGANISATIONAL PSYCHOLOGY

Structure

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Working with People
 - 4.2.1 Individual Differences
 - 4.2.2 A Whole Person
 - 4.2.3 Motivated Behaviour
 - 4.2.4 Human Dignity
 - 4.2.5 Workforce Diversity
 - 4.2.6 Changing Demographics
 - 4.2.7 Increase in International Business
 - 4.2.8 Legal Requirement
 - 4.2.9 Social Responsibility
 - 4.2.10 Capacity Building
 - 4.2.11 The New World of Work
 - 4.2.12 Downsizing
- 4.3 Quality Consciousness
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 - 4.4.1 Ethical Behaviour in Organisations
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 - 4.4.5 Deviant Workplace Behaviour
 - 4.4.6 Employee Silence
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 - 4.4.8 Violence
- 4.5 Let Us Sum Up
- 4.6 Unit End Questions
- 4.7 Glossary
- 4.8 Suggested Readings and References

4.0 INTRODUCTION

There can be no organisations without human beings. People are any company's most valuable assets. The most serious challenge of running an organisation revolves around managing its people. Corporations today are dabbling with various approaches to dealing with people. This is where human factors take the center stage in I/O Psychology. I/O psychologists are versatile behavioural scientists specialising in human behaviour in the workplace. In this unit, we will examine what working with people

really entails. We shall discuss the growing need of I/O psychology to address workforce diversity, other changes in the new world of work, and some critical behaviours at the workplace. It is clear that the human side of work is a crucial element in effective functioning – and even basic existence – of organisations.

4.1 OBJECTIVES

After reading this unit, you will be able to:

- Describe the four basic concepts of working with people;
- Define workforce diversity;
- Describe the factors leading to workforce diversity;
- Describe the three changes that have occurred in the new world of work; and
- Know three critical workplace behaviours.

4.2 WORKING WITH PEOPLE

The most central element in I/O psychology is the study of human factors. People make up the internal social system of the organisation. They consist of individuals and groups- large and small, formal and informal. People are the living, thinking, feeling beings who work in the organisation to achieve their objectives. It may even be said that organisations exist to serve people, rather than people existing to serve organisations. I/O psychologists recognise – and rightly so – that work settings can be made both pleasant and productive by taking a people-centric approach. The challenge then is to help people perform at their highest level of competencies and lead an organisation towards higher productivity.

With regards to people, there are four basic concepts (Davis & Newstorm, 1989): individual differences, a whole person, motivated behaviour and human dignity.

4.2.1 Individual Differences

The idea of individual differences comes originally from psychology. From the day of birth, each person is unique, and individual experiences later tend to exaggerate these differences. Individual differences at the workplace imply that management can get the highest motivation among employees by treating them differently, and not in a standard across-the-board way. Diversity at the workplace, discussed in the next section, has further compounded such individual differences among people, leading to serious challenges.

4.2.2 A Whole Person

People function as total human beings, with their strengths as well as limitations. As they enter the offices each morning, they come with their baggage of idiosyncratic preferences, values, attitudes and unique personalities. Employees belong to many organisations other than their employers (like family, a community and even the broader society), and they play multiple roles inside and outside the firm. If the whole person can be improved the benefits will accrue into the larger society in which each employee lives and not just the firm where he works.

4.2.3 Motivated Behaviour

To understand the ‘why people do what they do’ is the crux of I/O psychology. All

behaviour is motivated, and this motivation is essential to the operation of organisations. No matter how sophisticated technology and equipment an organisation may have, you still need people to operate them (at least in the present times, one can never be sure about the future!), and they have to be motivated.

4.2.4 Human Dignity

Every job, however simple or menial, entitles the people who do it to proper respect and recognition of their unique abilities and aspiration. The concept of human dignity rejects the old philosophy of using employees as economic tools.

The human resources approach prevalent in I/O psychology today is developmental. It is concerned with the growth and development of people toward higher levels of competency, creativity and fulfillment, because people are the central resources in any organisation and any society.

4.2.5 Workforce Diversity

Girish Bansal, aged 24 years, looked around himself sitting on his desk in his office. His manager, Mrs. Sudha Chakraborty, aged 52 was giving dictation to her secretary, Diana Cherain, aged 26, preparing for the visit of the Managing Director Mr. Steve Rudolph, 48. Girish's team leader Mr. Wahab, 34, handed an office file to Girish and asked him what he was thinking. Girish answered, 'Times have certainly changed and so has the composition of the workforce!'

What Girish is referring to is the diversity of the workforce—men and women, people of many generations, people from ethnically and racially diverse backgrounds etc. all working together. As we enter the 21st century, a typical organisation is fast emerging as a place of diverse workforce in terms of gender, race and ethnicity. A discussion of human factors at the work place naturally draws attention to diversity of the workforce, and the growing need of I/O psychology to address it.

In the Indian context, diversity can be seen through these figures: Over 400 million women are employed in various streams. Over 30% of the workforce in IT sector is women. Socially disadvantaged people have entered organisations as a result of policies of reservation and concessions. Old employees have grown in number due to increased life expectancy and better medical care. IT industries like TCS, Infosys, Wipro are actively recruiting foreign nationals and women. Bharti Enterprise has mandated their recruitment agencies to have a 25-30% percentage of women candidates at the interview stage.

A number of factors have led to an increase in workforce diversity in recent times (Refer Figure 4.1). Let's look at them one by one.

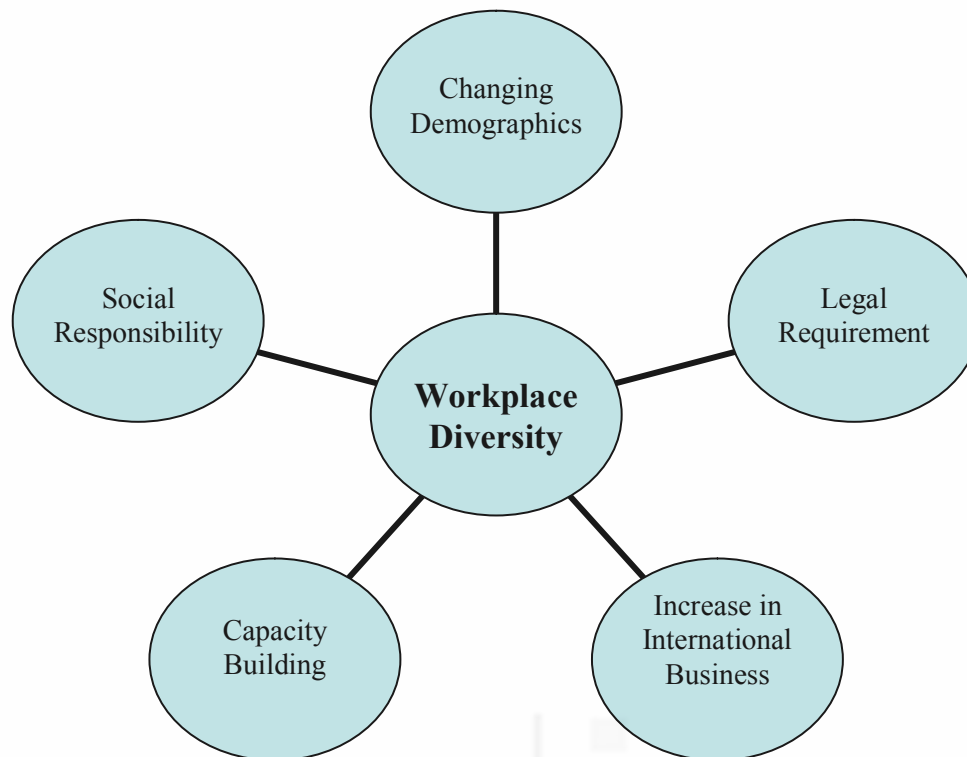


Fig. 4.1: Factors leading to workforce diversity

4.2.6 Changing Demographics

Today's labour pool is dramatically different than in the past. Younger employees, women, minorities, and those with higher education levels are entering the workforce in large numbers. The changing demographics in the workforce, that were heralded a decade ago, are now upon us. No longer dominated by a homogenous group of upper middle class males educated at elite institutions, available talent is now overwhelmingly represented by people from a vast array of backgrounds and life experiences.

While the world over, the workforce is getting progressively older, in India the situation is the reverse. The large population once considered a liability is now turning out to be an asset. The percentage of employees under the age of 35 is increasing. This young force has values markedly different from those of their older counterparts. The days of total loyalty and commitment to the company in return for lifelong employment are a thing of the past. The changing age composition of the workforce will naturally force organisations to make adjustments.

Besides age composition, there are significant changes vis-à-vis gender make up (pun intended!) that are noticeable. Women in particular are entering the workplace in record numbers, and are shattering the proverbial glass ceiling. Indra Nooyi, President & CEO, PepsiCo, Naina Lal Kidwai, CEO, Hongkong and Shanghai Banking Corporation, India, Roopa Kudva, MD & CEO, CRISIL Ltd., Renuka Ramnath, MD & CEO, ICICI Ventures, are some famous examples of women business leaders actively climbing the **corporate** ladder. Unfortunately, however, statistics show that women are still being paid far less than men. This makes it incumbent for firms to strive to change their policies and practices to eliminate gender bias and discrimination.

In addition to age and gender, there are other groups that are also contributing to the growing diversity of the workforce: single mothers, single fathers, dual-career couples, homosexuals, even significantly overweight people, and so on. Specific steps must be taken by companies to not only ensure rights, but also dignity of every group.

4.2.7 Increase in International Business

The phenomenon of globalisation has had a dramatic effect on organisations. Large business organisations increasingly see their markets as international rather than purely domestic. A natural byproduct is greater cultural diversity. Diversity mainly came into the picture, at least in India, when globalisation came in 1990-91. As the wave of globalisation sweeps across organisations, there is a convergence of workforce from diverse countries, cultures, values, styles etc. This also means that organisations have to learn to deal with a more diverse and heterogeneous customer base, and new structures and processes are needed for international operations. An interesting example of 'globalization' is Pizza Hut, an American restaurant chain and international franchise, offering Paneer Tikka Pizza in India. Don't we all love it?

4.2.8 Legal Requirement

Today, many companies are under legislative mandates to be non-discriminatory in their employment practices. In the West, non-compliance with Equal Employment Opportunity or Affirmative Action legislation can result in fines and/or loss of contracts with government agencies. In America, Civil Rights Act of 1964 prohibited discrimination in employment, and its refinement in 1991 made it obligatory for employers to ensure equal opportunity in employment to employees. Other more recent legislation, such as Age Discrimination Act (1978), Pregnancy Discrimination Act (1978), Americans with Disabilities Act (1990), Family and Medical Leave Act (1993) have made diversity at the workplace a reality. In India, 22.5 % of quota in government jobs is reserved for people from the Scheduled Castes (SCs) and Scheduled Tribes (STs), and now the Other Backward Classes (OBCs) and other categories such as disabled, war widows and so on. As of now, the private sector in India is not legally obliged to provide jobs to such categories, only socially and morally obliged.

4.2.9 Social Responsibility

Many of the beneficiaries of good diversity practices are from groups of people that are 'disadvantaged' or have historically been kept out of the mainstream in our communities, for e.g. education was considered as largely a upper-class Brahminic bastion, lower castes were not allowed to study. By diversifying our workforces, we can provide opportunities to people not only to earn a living but also to realise their dreams. Thus workforce diversity may be considered as an exercise in good corporate responsibility.

4.2.10 Capacity Building

Many organisations are charting diversity initiative not merely to comply with legal or social obligations, but to reap business benefits especially in term of better recruitment and higher retention among the talented workforce. You may have come across recruitment advertisements of company proclaiming 'We are an Equal Employment Opportunity employer'. In addition to their job-specific abilities, employees are increasingly valued for the unique qualities and perspectives that they bring with them. This also creates a reputation for 'celebrating diversity' and helps in attracting the

best employees regardless of age, gender or ethnicity or religion. For instance, Google, ranked first by Fortune5000 magazine as the best company to work for employs diverse groups of people: about 36% minorities and 33% women.

Diversity may also lead to innovative and often unforeseen competitive advantages. As vendors, business partners, and customers are becoming diverse, companies that attract heterogenous workforces will find themselves effective in their external interactions and communications. Customers today are represented people from all walks of life (ages, religions, ethnicities, genders, sexual orientations, and so on). To ensure that their products and services are designed to appeal to this diverse customer base, it is important that the makeup of the workforce reflect the makeup of the customer base. For e.g. women working at Reebok pointed out that there was no good shoe available for aerobics. The firm paid heed to this advice and began marketing aerobic shoes, which became very profitable.

One thing is imminently obvious: diversity is here to stay. Of course there are challenges to maintaining a diverse workforce. Managing diversity is more than simply acknowledging differences in people. It goes far beyond the limits of equal employment opportunity and affirmative action. Diversity management is not only about preventing unfair discrimination and improving equality but also valuing differences and inclusion. Tools such as language training, cultural training, bias-reduction training, and diversity education are being used by organisations for diversity management.

Earlier, the management followed ‘melting pot approach’ to differences in workforce. It was assumed that people who were different would somehow merge with the majority group. Now companies follow the ‘salad bowl’ approach: just as different vegetables add their distinct flavours to the salad, similarly it is desirable to recognise and value employee differences by adapting management practices to different life and work styles. Diversity, if positively managed, can increase creativity and innovation in organisation as well as improve decision making by providing different perspectives on problems. When diversity is not managed properly, there is a potential for higher turnover, more difficult-communication, and more interpersonal conflicts.

4.2.11 The New World of Work

The only thing constant is change. Although the human factors problems facing managers in organisations have existed since the beginning of civilisation, in the past 20 years the pace of change has accelerated to completely change the world of work. In this section we shall briefly consider the many changes that employees and organisations have faced, the impact of these changes on individuals, organisations, and even the broader society, and the challenges faced in coping with such changes.

4.2.12 Downsizing

Many businesses are being forced to downsize their number of employees to cut costs or because the business feels it should operate with fewer employees. Downsizing is the act of scaling down the number of employees on a company’s payroll permanently (as opposed to temporarily like layoffs). Major reasons of downsizing are strategic or structural: to improve productivity, plant obsolescence, mergers and acquisitions, transfer of locations, new technology, and so on.

The onset of the recession in 1990 gave fresh urgency to the drive to limit labour costs and boost efficiency, and the downsizing movement hit its stride. In one of the most dramatic examples of downsizing, at the end of 1990 General Motors eliminated 74,000 jobs and 21 plants (one-fifth of GM’s North American holdings). There were

others too: Boeing cut 30,000 jobs; Sears, 50,000; AT&T, 83,000; and IBM, which had had a no-layoff policy since its founding in 1914, announced that it would cut 85,000 workers from its payroll. In fact, by 1993, IBM's workforce was about 60% of its size in 1985. More recently, Lehman Brothers, the leading US-based investment bank filed for bankruptcy (September 15, 2008), leaving employees in a rude shock, with accompanying feelings of isolation, fear and panic. Layoffs have also been reported in companies like Merrill-Lynch, CitiGroup, Detroit, Daimler, Ebay, Hewlett-Packard, and many others owing to recession. Fortunately, now the economic downturn may be less severe or even over.

Organisations are indeed becoming "leaner and meaner" (Burke & Cooper, 2002, p. xiii). More and more companies are focusing on their core competencies and outsourcing everything else. American Airlines, for example, is contracting out customer service jobs at thirty airports. Further, as pointed out by Peters and Waterman (1982) in their book *In Search of Excellence*, companies have to break down their rigid hierarchies or risk obsolescence. Organisational structures have changed dramatically from hierarchical, command and control structures to flatter, and in some cases, network structures. Flattened hierarchies also means that there will be fewer managers in smaller remaining organisations.

In these times of downsizing, "right-sizing", layering, mergers and reengineering, employees are confused as to their purpose at work, distrustful of almost everyone, and motivated to pursue self-interests, as do their bosses (Deal and Kennedy, 2000). They are detached, disillusioned, and prone to gather in underground subcultures. **The employer-employee relationship is moving away from long-term and stable in the direction of short-term and contingent (Khandelwal, 2009).** Business leaders are finding out that while downsizing helped reduce costs more often than not (about 61 percent of the time); it was nowhere near as effective as had been hoped. If it is done correctly, downsizing can save a business. But done incorrectly, it can drag a struggling company even further down.

Activity

Which brand of hair oil or toothpaste do you use? Now ask the same question from your father/mother and grandfather/grandmother. Chances are that while they would be using the same brand for many years, you would have changed many brands. Favourites don't last long!

4.3 QUALITY CONSCIOUSNESS

'Quality' has become the new mantra. Everyone, right from our friendly neighbourhood grocery store to the swanky new mall, seems to be promising delivery of quality. A logical implication of globalisation has been international competition. And increased competition is forcing managers to reduce costs and at the same time, improve their organisation's productivity and the quality of their products and services.

As the above would have demonstrated, customers are no longer loyal to a particular brand. It thus becomes imperative for organisations to enhance and deliver quality. Management guru Peters suggests that quality improvement comes via simplification of design, manufacturing, layout, processes, and procedures. Recognising that the success of any effort at improving quality must include the employees, companies are implementing programs such as Total Quality Management (TQM), six sigma, and business process engineering.

4.3.1 Definition of TQM

TQM refers to an organisational strategy with accompanying techniques that deliver quality products and/or services to customers. It requires total dedication to continuous improvement and to customers, so that the customers' needs are not only met, but their expectations exceeded.

Six Sigma is a disciplined methodology of defining, measuring, analysing, improving and controlling the quality in every one of the company's products, processes and transactions, with the ultimate goal of virtually eliminating all defects. Motorola in particular has become known for six sigma quality, implying acceptance of 3.4 defects per million.

Business Process engineering is the analysis and redesign of workflows and processes within and between organisations. It involves redesigning the way work is done to better support the organisation's mission, strategic goals, and customer needs.

All three approaches believe that no quality program will result in improvement if it can't be internalised. Unlike many of the earlier programs, they recognise that cultural issues, including leadership development, are among the most important issues to be addressed in the improvement of any organisation.

4.3.2 Employee turnover

Just as brand loyalty is a thing of the past, similarly lifelong loyalty of employees to the company or to the employer is extremely rare. Whether it is due to changing demographic profile of the average worker, availability of more opportunities, or simply generational shift in terms of values and attitudes, one thing is sure: employee retention is increasingly posing as a serious challenge to companies. In India, the BPO sector for instance, is witnessing very high turnover.

Employee turnover (not to be confused with company turnover which is annual net sales) represents a sizeable cost for most companies. Studies have shown that the cost of replacing employees, especially senior managers and highly marketable personnel such as high-tech professionals and engineers, is substantial (Cooper and Burke, 2002). Other 'invisible' costs of turnover include the impact on the morale and productivity of work units, a possibility of a 'snowball effect', i.e. turnover itself causes more turnover (Mowday et al., 1982), delays on important projects, discontinuity of customer/client service with resultant negative impact on customer/client satisfaction, a loss of intellectual capital with the assumed possibility that a former employee may become a future competitor (Wagner and Hollenbeck, 1995). Finally, a sequence of short stays can cause damage to an employee's own career chances and aspirations.

Internal factors such as job dissatisfaction and job commitment, and external factors such as economic conditions, attractive work alternatives, successful search, and reward-cost analysis of the present job have been identified as potential causes of turnover. Steers and Black (1994) postulated that job attitudes (which are influenced by a host of individual and organisational factors, such as unmet job expectations, perceived inequitable rewards, poor supervisory relations, etc.) combine with non work influences (e.g. one's desire to stay home to raise a family, the transfer of one's spouse) to determine an employee's desire to stay or leave the organisation

Factors such as downsizing, restructuring, and outsourcing, considered earlier, mean that more workers in the future will be offering their services to organisations on short-term contract or freelance bases. A natural question then is: Can individuals commit to organisations that do not commit to them? It is up to I/O psychology to

provide answers and come up with interventions to reduce turnover. Some recommendations to reduce turnover are increasing pay relative to competing firms, job redesign, training supervisors, improving selection and placement, increasing benefits (such as home loan assistance), employing spouses, and by offering unique advantages (e.g. job sharing) not available elsewhere.

Let us now try to predict the workplace of the future. Most organisations will only have a small core of full-time, permanent employees, working from a conventional office, as a consequence of working freelance, on short-term contact basis, or even regular or part-time employees teleworking (linked to the company by computers and modems). We will increasingly be creating 'virtual organisations' (Burke & Cooper, 2002) and will have to work in a climate best characterised as 'temporary'. All the above points represent disruptive change and require new thinking and new ways of managing. Will it lead to greater flexibility or better work-life balance, particularly for women? Will companies prefer hiring women? How will the employer-employee relationship change? Will a new employment contract emerge? Will teamwork be a major factor in the way work is carried out? Will there be a greater emphasis on 'softer' skills like communication, negotiation, flexibility, etc. to perform successfully in newly evolving jobs? How will this impact psychological well-being and satisfaction of individuals and families? These are critical questions that I/O psychology must prepare itself for, the answers to which only time will tell.

4.4 WORKPLACE BEHAVIOURS

When we talk about human factors at the work place, can a discussion of work place behaviours be far behind? Let us now turn our attention towards examining some critical behaviour at the workplace that employees engage in.

4.4.1 Ethical Behaviour in Organisations

Do you remember the now infamous Satyam scandal? On 7 January 2009, company Chairman Ramalinga Raju resigned after confessing that Satyam's accounts had been falsified (For more details, you can refer to http://en.wikipedia.org/wiki/Satyam_scandal).

In the new organisational world characterised by cutbacks, expectations of increased worker productivity, and tough competition in the marketplace, it's not really surprising that many employees feel pressured to break ethical rules and engage in questionable practices. The line differentiating right from wrong is increasingly becoming blurred. In this corporate ethics meltdown era, we are facing new realities, and understanding ethics – both at the individual and group level – becomes imperative.

At the individual level, two ethical issues are increasingly become important and have to be addressed urgently:

4.4.2 Sexual Harassment at the Workplace

This is defined as unwelcome sexual advances, requests for sexual favours, or other verbal or physical conduct of a sexual nature. In India, it was in 1997 that for the first time sexual harassment was legally defined as an unwelcome sexual gesture or behaviour, whether directly or indirectly. The critical factor in sexual harassment is the unwelcomeness of the behaviour, thereby making the impact of such actions on the recipient more relevant rather than intent of the perpetrator.

The guidelines and judgments of courts have made it clear that all the employers in

charge of work place – whether in the public or the private sector – should take appropriate steps to prevent sexual harassment. Although many firms now have sexual harassment policies in place, clearer initiatives are still required to address the ethical and legal challenge of sexual harassment.

4.4.3 Employee Privacy Issues

Developments in computer technology have made it easier for employers to learn information about their employees leaving the latter vulnerable. For e.g. computer data banks keep all kinds of personal information; passwords on email accounts can be hacked. Another important privacy issue is the extent of company ‘interference’ in personal lives of their employees. For instance, as attraction the workplace is becoming common (estimates say about 80 percent of employees have either observed or been in a romantic relationship at their workplace), some companies have a strict ‘no dating’ policy among employees. The prevailing corporate attitude has long been that office romances are nothing but trouble, a breeding ground of favoritism and nepotism, sexual harassment, and fatal attractions. Can companies dictate who people fall in love with? Such privacy issues are likely to be an increasingly ethical concern in the years ahead.

Although ethics is primarily an individual issue, an organisation too is obliged to behave ethically. The obligation of an organisation to behave in ethical ways in the social environment in which it operates is referred to as corporate social responsibility (CSR). The fundamental idea of CSR is that business corporations have an obligation to contribute to the welfare of the society and to work for social betterment. In India companies like the Tata Group, ITC, P & G, Maruti, Infosys and others have taken several initiatives like protection of the environment, farmer literacy, and other welfare ventures.

CSR is defined as situations where the firm goes beyond compliance and engages in ‘actions that appear to further some social good, beyond the interests of the firm and that which is required by the law’ (McWilliams and Siegel, 2000)

Managers need to create an ethically healthy climate for their employees where they can work productively and face minimum uncertainty regarding what is right and wrong behaviour – a tall order indeed!

4.4.4 Organisational Citizenship Behaviour (OCB)

OCB is a unique aspect of individual activity at work, first mentioned in the early 1980s. According to Organ (1988), it represents “individual behaviour that is discretionary, not directly or explicitly recognised by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organisation” (p.4). He identified five categories of OCB:

- Altruism – the helping of an individual coworker on a task
- Courtesy – alerting others in the organisation about changes that may affect their work
- Conscientiousness – carrying out one’s duties beyond the minimum requirements
- Sportsmanship – refraining from complaining about trivial matters
- Civic virtue – participating in the governance of the organisation.

Clearly, then OCB describes actions in which employees are willing to go above and beyond their prescribed role requirements. Organisations want and need employees who will do those things that aren't a part of one's job description. Research supports the belief that these behaviours are indeed positively related to indicators of individual, unit, and organisational performance (for e.g. Podsakoff & MacKenzie, 1994; Walz & Niehoff, 2000). In today's dynamic workplace where tasks are increasingly done in teams, new tasks are encountered almost everyday, and flexibility is critical, organisations certainly need employees who will engage in 'good citizenship' behaviours.

4.4.5 Deviant Workplace Behaviour

At the other end of the continuum lies workplace behaviour that is deviant. Deviant workplace behaviour can be seen as the "voluntary behaviour that violates significant norms and in doing so threatens the well-being of an organisation, its members or both" (Robinson & Bennet, 1995, p. 556). Workplace deviance can be expressed in various forms as given below:

Interpersonal deviance. This targets specific stakeholders such as coworkers and can include gossiping about coworkers, spreading rumours, blaming coworkers, and so on.

Organisational deviance. This includes production deviance (leaving early, intentionally working slowly, wasting resources, etc.), property deviance (theft, sabotage, intentional errors in work, misusing expense accounts, etc.), and also includes withdrawal behaviour like tardiness and being absent from work.

4.4.6 Employee Silence

This is intentional or unintentional failure to withhold any kind of information that might be useful to the organisation.

4.4.7 Cyberloafing

This new form of workplace deviance has emerged as the use of technology becomes a much bigger part of people's lives. This includes simply surfing the web and doing non-work related task on the internet such as chatting on social networking site and other.

4.4.8 Violence

Workplace violence can be any act of physical violence, threats of physical violence, harassment, intimidation, or other threatening, disruptive behaviour that occurs at the work site.

All these deviant behaviours only cause the organisation problems. Workplace deviance often arises from pay or budget cuts, pay freezes, change in management, abusive supervision, increased diversity, reengineering, or unpleasant physical conditions (high temperature, poor lighting) leading to high negative affect. It often arises from the worker's perception that his/her organisation has mistreated him or her in some manner.

Workplace deviance is a phenomenon that unfortunately occurs often in several organisations. The relationships that employees have with their organisations are crucial.

Workplace deviant behaviours are lower in employees who perceive their organisation or supervisor(s) as being caring or supportive. Ultimately it is up to the managers and

the organisation to uphold the norms that the organisation wishes to adhere to and to create an ethical climate.

4.5 LET US SUM UP

In this unit, we have discussed how human factors take the center stage in I/O Psychology. Working with people requires due consideration to individual differences, a whole person, motivated behaviour and human dignity. A number of factors have led to an increase in workforce diversity in recent times. These are changing demographics, increase in international business, legal requirement, social responsibility, and capacity building. In the last 20 years or so, the pace of change has accelerated tremendously and has posed fresh challenges for managers dealing with people. Three such changes are downsizing, quality consciousness and increased employee turnover. Some critical behaviours at the workplace include ethical behaviour, organisational citizenship behaviour, and deviant workplace behaviour.

4.6 UNIT END QUESTIONS

- 1) Describe the factors leading to workforce diversity. Suggest some advantages and disadvantages of workplace diversity.
- 2) Analyse the main changes that have occurred at the work place.
- 3) What in your opinion is the single most critical “people” problem that managers face today? Give reasons to support your answer.
- 4) Analyse and predict the future place of work. How will it be different from the current work place?
- 5) What are the three critical workplace behaviours?

4.7 GLOSSARY

Glass Ceiling	: Attitudinal or organisational bias in the workplace that prevents women and other minorities from advancing to leadership positions.
Diversity Management	: A proactive approach to affect the composition of a workforce so that it reflects the degree of diversity in the wider society (Rollinson & Broadfield, 2002)
Outsourcing	: The transfer of a business function (subcontracting) to an external service provider.
Affirmative Action	: A policy designed to provide advantages (in education, employment, social welfare etc.) to people of a minority group who are seen to have traditionally been discriminated against.
Motivation	: A driving force that initiates, directs, and maintains behaviour.
Globalisation	: Opening out beyond local and national borders towards an interconnected and interdependent world market and business.

4.8 SUGGESTED READINGS AND REFERENCES

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UNIT 1 HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Structure

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Human Resource Management (HRM)
 - 1.2.1 Principles of HRM
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1.0 INTRODUCTION

After realising that human assets are the most significant of all assets more importance is being given to “people” in organisations. Such emphasis can also be partly attributed to the new emerging values of humanism and humanisation. Earlier, people working in organisations were given attention only in administering the necessary conditions of work. Thus, the traditional concept of personnel management was based on a very limited view of human motivation mainly because of the underlying assumption that human beings are primarily motivated by comforts and salary. Hence, necessary attention was given on administration of salary and other benefits. It is now being increasingly realised that people are working in organisations are human beings having their own needs, motivation and expectations and that their contributory roles to the organisations are much more than that of any other resources being used. In this unit you will be learning about human resource management, how it evolved, its characteristic features, the typical functions of human resource, the ideal human resource development climate etc.

1.1 OBJECTIVES

After reading this unit, you will be able to:

- Define Human resource management;
- Differentiate between human resource management and human resource development;
- Trace the history and evolution of human resource management;
- Explain the functions of human resource management; and
- Describe the ideal human resource development climate.

1.2 HUMAN RESOURCE MANAGEMENT (HRM)

Human Resource Management (HRM) is the function within an organisation that focuses on recruitment of, management of, and providing direction for the people who work in the organisation. The term human resource refers to two concepts

- i) People are a *resource* and so are valuable for the organisation, and,
- ii) This resource has to be treated as a *human* resource and definitely not like other material resources.

Human Resource Management (HRM) is the term used to describe formal systems devised for the management of people within an organisation. The responsibilities of HRM include the following:

- 1) Staffing,
- 2) Employee compensation, and
- 3) Defining/designing work.

The purpose of HRM is to maximize the productivity of an organisation by optimising the effectiveness of its employees. As pointed out by Edward L. Gubman the basic mission of human resources will always be to:

- 1) Acquire, develop, and retain talent;
- 2) Align the work force with the business; and
- 3) Be an excellent contributor to the business.

Relatively recently, an organisation's human resources department was relegated to a somewhat lower position, however in recent years recognition of the importance of human resources management has grown dramatically. This importance of HRM extends to small businesses too, as they too face personnel management issues that can have a decisive impact on business health. Irving Burstiner was of the view that hiring the right people, training them well and placing them in the right section of the organisation will contribute to a steady business growth.

1.2.1 Principles of HRM

Business consultants note that modern human resource management is guided by several major principles. Perhaps the paramount principle is a simple recognition that

- 1) Human resources are the most important assets of an organisation. A business cannot be successful without effectively managing this resource.

- 2) Business success is most likely to be achieved if the personnel policies and procedures of the enterprise are closely linked with, and make a major contribution to, the achievement of corporate objectives and strategic plans.
- 3) It is the HR's responsibility to find, secure, guide, and develop employees whose talents and desires are compatible with the operating needs and future goals of the company.

In addition to the above three important principles, other HRM factors that shape corporate culture in terms of encouraging integration and cooperation across the company and instituting quantitative performance measurements, or taking some other action are also commonly cited as key components in business success.

Armstrong summarised HRM as given below:

HRM is a strategic approach to the acquisition, motivation, development and management of the organisation's human resources. It is devoted to shaping an appropriate corporate culture, and introducing programs which reflect and support the core values of the enterprise and ensure its success.

1.2.2 Position and Structure of HRM

Position and structure of HRM

The functions of human resource management are ideally positioned near the theoretic center of the organisation, with access to all areas of the business. Since the HRM department or manager is charged with managing the productivity and development of workers at all levels, human resource personnel should have access to and the support of key decision makers. In addition, the HRM department should be situated in such a way that it is able to effectively communicate with all areas of the company.

HRM structures vary widely from business to business, shaped by the type, size, and governing philosophies of the organisation that they serve. But most organisations organise HRM functions around the clusters of people to be helped. That is, they conduct recruiting, administration, and other duties in a central location. Different employee development groups for each department are necessary to train and develop employees in specialised areas, such as sales, engineering, marketing, or executive education.

Today, senior management expects HR to move beyond its traditional, compartmentalised 'bunker' approach to a more integrated, decentralised support function." Given this change in expectations, Johnston noted that "an increasingly common trend in human resources is to decentralise the HR function and make it accountable to specific line management.

The responsibilities of the Human resource management department can be broadly classified by individual, organisational, and career areas.

Individual management entails helping employees identify their strengths and weaknesses, correct their shortcomings, and make their best contribution to the enterprise. These duties are carried out through a variety of activities such as performance reviews, training, and testing.

Organisational development, meanwhile, focuses on fostering a successful system that maximises human and other resources as part of larger business strategies. This important duty also includes the creation and maintenance of a change program, which allows the organisation to respond to evolving outside and internal influences.

The third responsibility is the career development of the employees and entails matching individuals with the most suitable jobs and career paths within the organisation.

1.2.3 The Key Responsibilities of HRM

Human resource management is concerned with the development of both individuals and the organisation in which they operate. HRM, then, is engaged not only in securing and developing the talents of individual workers, but also in implementing programs that enhance communication and cooperation between those individual workers in order to nurture organisational development.

The primary responsibilities associated with human resource management include:

- 1) Job analysis and staffing,
- 2) Organisation and utilisation of work force,
- 3) Measurement and appraisal of work force performance,
- 4) Implementation of reward systems for employees,
- 5) Professional development of workers, and
- 6) Maintenance of work force.

Let us deal with each of these in some detail.

Job analysis consists of determining the nature and responsibilities of various employment positions. This can encompass

- a) determination of the skills and experiences necessary to adequately perform in a position,
- b) identification of job and industry trends, and
- c) anticipation of future employment levels and skill requirements.

Organisation, utilisation, and maintenance of a company's work force is another key function of HRM. This involves designing an organisational framework that makes maximum use of an enterprise's human resources and establishing systems of communication that help the organisation operate in a unified manner.

Performance appraisal is the practice of assessing employee job performance and providing feedback to those employees about both positive and negative aspects of their performance. Performance measurements are very important both for the organisation and the individual as they are the primary data used in determining salary increases, promotions, and, in the case of workers who perform unsatisfactorily, dismissal.

Reward systems are typically managed by HR areas as well. This aspect of human resource management is very important, for it is the mechanism by which organisations provide their workers with rewards for past achievements and incentives for high performance in the future. It is also the mechanism by which organisations address problems within their work force, through institution of disciplinary measures.

Employee development and training is another vital responsibility of HR personnel. HR is responsible for researching an organisation's training needs, and for initiating and evaluating employee development programs designed to address those needs. These training programs can range from orientation programs to ambitious education programs intended to familiarise workers for example, with a new software system.

Responsibilities associated with training and development activities, meanwhile, include

the determination, design, execution, and analysis of educational programs. The HRM professional should be aware of the fundamentals of learning and motivation, and must carefully design and monitor training and development programs that benefit the overall organisation as well as the individual.

Meaningful contributions to business processes are increasingly recognised as active human resource management practices. Human resource managers have always contributed to the overall business processes in certain respects, as for ensuring ensuring that the organisation is obeying worker-related regulatory guidelines. The increasing numbers of businesses are incorporating human resource managers into other business processes as well.

In the past, human resource managers were cast in a support role in which their thoughts on cost/benefit justifications and other operational aspects of the business were rarely solicited, but now it has become increasingly necessary for business owners and executives to pay greater attention to the human resource aspects of operation.

1.2.4 The Changing Field of HRM

In recent years, several business trends have had a significant impact on the broad field of HRM. Chief among them are the new technologies, which have dramatically altered the business landscape. Satellite communications, computers and networking systems, fax machines, and other devices have all facilitated change in the ways in which businesses interact with each other and their workers. Telecommuting, for instance, has become a very popular option for many workers, and HRM professionals have had to develop new guidelines for this emerging subset of employees.

Changes in organisational structure have also influenced the changing face of human resource management. Continued erosion in manufacturing industries in the United States and other nations, coupled with the rise in service industries in those countries, have changed the workplace, as has the decline in union representation in many industries (these two trends, in fact, are commonly viewed as interrelated).

In addition, organisational philosophies have undergone change. Many companies have scrapped or adjusted their traditional, **hierarchical** organisations structures in favour of **flatter** management structures. HRM experts note that this shift in responsibility brought with it a need to **reassess** job descriptions, appraisal systems, and other elements of personnel management.

A third change factor has been accelerating market globalisation. This phenomenon has served to increase competition for both customers and jobs. The latter development enabled some businesses to demand higher performances from their employees while holding the line on compensation. Other factors that have changed the nature of HRM in recent years include (i) new management and operational theories like Total Quality Management (TQM) (ii) rapidly changing demographics (iii) changes in health insurance and (iv) central and state employment legislation.

1.2.5 Small Business and HRM

We have so far discussed large management set ups and large organisations and large business houses. HRM is equally if not more essential and important even for smaller organisations and business houses. The human resource management needs of smaller business organisations are not of the same size or complexity of those of a large firm. Nonetheless, even a business that carries only two or three employees faces important personnel management issues.

Indeed, the stakes are very high in the world of small business when it comes to employee recruitment and management. No business wants an employee who is lazy or **incompetent** or **dishonest**. But a small business with a work force of half a dozen people will be hurt far more badly by such an employee than will a company with a work force that numbers in the hundreds (or thousands).

Nonetheless it must be kept in mind that most small business employers have no formal training in how to make hiring decisions. Before hiring a new employee, the owner of the company should consider many issues which are listed below in the form of questions:

- a) Are current employees being utilised appropriately?
- b) Are current production methods effective?
- c) Can the needs of the business be met through an arrangement with an outside contractor or some other means?

As stated by Rossiter any personnel change should be considered as an opportunity for rethinking the organisation's structure.

Also there is a need to match the talents of prospective employees with the company's needs. Efforts to manage this can be accomplished in a much more effective fashion if efforts are put in to define the job and actively take part in the recruitment process.

It is ofcourse well known that the human resource management task does not end with the creation of a detailed job description and the selection of a suitable employee. Indeed, the hiring process marks the beginning of HRM for the organisation.

To hold problems to a minimum, specific personnel policies should be established as early as possible. These become useful guides in all areas such as recruitment and selection, compensation plan and employee benefits, training, promotions and terminations, etc. Depending on the nature of the business enterprise (and the owner's own comfort zone), the owner can even involve his employees in this endeavour. In any case, a carefully considered employee handbook or personnel manual can be of great value to ensure that the small business owner and his or her employees are not handicapped in any way.

Some small business organisations also need to consider training and other development needs in managing their enterprise's employees. The need for such educational supplements can range dramatically. A bakery owner, for instance, may not need to devote much of his resources to employee training, but a firm that provides electrical wiring services to commercial clients may need to implement a system of continuing education for its workers in order to remain viable.

Finally, the business owner needs to establish and maintain a productive working atmosphere for his or her work force. Employees are far more likely to be productive assets to the company if they feel that they are treated fairly. The business owner who clearly communicates personal expectations and company goals, who also provides adequate compensation, who offers meaningful opportunities for career advancement, and who anticipates work force training and developmental needs, as well as who provides meaningful feedback to his or her employees is far more likely to be successful than the owner who is neglectful in any of these areas.

The positive view of people working in the organisations as an asset with unlimited potential is the core concept of the human resource system. That is the reason why the investment for increasing the human resource is necessary, and the more an

organisation invests in the human resources, the larger the return from such investment is likely to be. This understanding of the need for continuous investment and the probability of optimum return, is an important conceptual idea in this regard.

Apart from the above, one other reason for investment in human resource is necessary because the organisations have an obligation to the society, that they should also contribute to the development of people, and operate with the new values of treating people as human beings, as well as contribute to this value of creating traditions and culture of respecting people as human beings (Yeung & Berman, 1997; Pareek & Rao, 2006).

Human resources can be viewed as the sum of knowledge, skills, attitudes, commitment, values and the like of the people of an organisation. Human Resource Management (HRM) is the function within the organisation that focuses on recruitment of, management of people and providing direction for the people who work in the organisation.

HRM can also be performed by line managers. HRM is the organisational function that deals with issues related to people such as compensation, hiring, performance management, organisational development, safety, wellness, benefits, employee motivation, communication, administration and training.

In this context, development is acquisition of capabilities that are necessary to do the present job or the future expected job. In this respect Human Resource Development (HRD) is a positive concept in human resources management. It aims at overall development of human resources in order to contribute to the well being of the employees, organisation and the society at large. In other words, HRD is the process of helping people to acquire competencies and thereby, becoming a major subsystem of human resource management (HRM).

It is indeed a fact that among a host of critical tasks of managers selection, training and development of human resources are noteworthy because they help most to meet the goals of the organisation. Without efficient people at the managerial level as well as at all levels indeed, organisations will either pursue inappropriate goals or find it difficult to achieve the desired goals.

Human dynamics play an essential role in crossing the barriers, avoiding complex situations and achieving organisational goals. That is the reason why some organisations succeed in spite of major barriers, environmental changes and challenges, while others failed rather quickly under external pressures. The former type of organisations are generally dynamic having enormous learning abilities, which lead them to adapt and cope with environmental challenges, while the latter because of their traditional adherence, old habits, styles and practices gradually cut a sorry figure.

Due to social, political and economic changes throughout the world, there have been clear indications that organisations find it increasingly difficult to maintain economic stability. As a consequence of increasing global competition, fragmentation of mass markets and a general decline in consumer demand, countries are aware that economic growth will be maintained at present rates only if greater value are added to generating of activities. This implies successful emergence of a new generation of technologically advanced and desirable products together with a trained, and motivated workforce to produce them.

The internalisation of the productive processes have raised new problems of control, motivation and appraisal across economic and cultural boundaries.

The dimensions of quality of work life are also facing a global transition. The developments in eastern Europe, the emergence of a growing South East Asia and globalisation of economies have created new challenges for managers and behavioural scientists.

The changing internal environment in organisations calls for better understanding of human resource management. The culture or climate of an organisation is made up of traditions, values, habits, ways of organising and interpersonal relationships at work.

An effective work culture is flexible, integrated, decentralised, performance oriented, quality conscious, cooperative, collaborative, and supportive. The major elements of HRM strategy and functions can be related to organisational culture, which depends on the philosophy or mission of the company and its strategic plans.

Human resource planning defines the balance of demand and supply of human resource in the organisation. Training and development play an important role in instilling the culture, while goal setting and appraisals make the organisational culture to be performance oriented and enable it to operate with predictability. Reward management reinforces the culture while succession planning helps in maintaining that culture.

Earlier, productivity was the focus but now retention of human resource is considered to be equally important. The workers' liberation of 60s and 70s have been replaced by a new profit oriented, quality oriented pragmatism which calls for integrating human resource planning with corporate strategy. In other words, contemporary global focus is on integrating human resource functions with industrial relations so as to achieve corporate excellence and develop organisational citizenship.

1.3 EVOLUTION OF HRM

In the mid 1980s a couple of famous writers on management developed several lists of characteristic attributes of a number of successful companies which may be considered as the emergence of the concept of HRM. During this period the American Society for Training & Development (ASTD) developed a Human Resource Wheel in 1983 (Figure 1) focusing various functions of HRM leading to quality of work life, productivity and readiness for change.

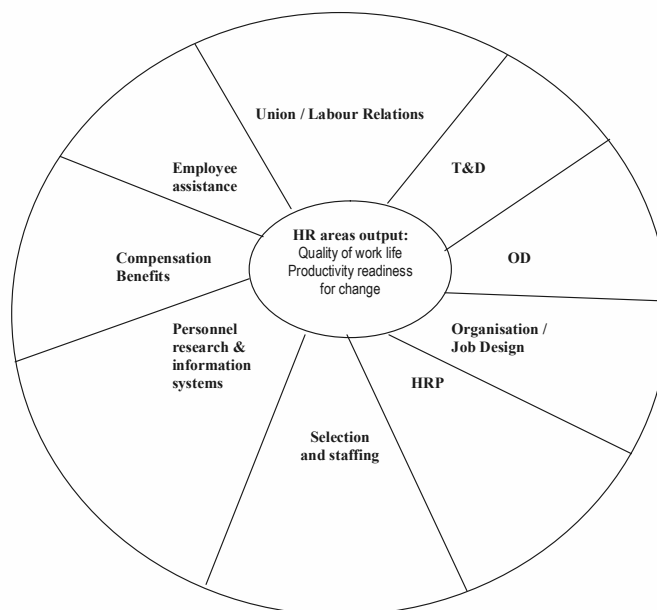


Fig. 1: Human Resource Wheels, Source: ASTD, 1983

Training and development focus: Here the main focus is on identifying, assessing and planned learning, help develop the key competencies in the personeel which enable individuals to perform current or future jobs.

Organisational development focus: In this OD, the focus is to assure healthy inter and intra personal relationships and to help groups initiate and manage change.

Organisation/Job design focus: The focus here is on how to define tasks, how to organise authority and systems and integrate across organisation units and in individual jobs.

HRP focus: The focus here is on determining the organisation's major HR needs, strategies and philosophies.

Selection and staffing: In this the main focus is on how to match people and their career needs and capabilities with jobs and career paths.

Personnel research and information systems: This is an important aspect of human resource management and thus the focus here is on assuring a personnel information base.

Compensation/Benefits focus: Here the focus is on assuring how to make compensation and benefits as fair, consistent and as just as possible.

Employee assistance focus: Here the employee's welfare is the focus and thus one finds providing of counselling and related services to individual employees, for personal problem-solving.

Union/Labour relations focus: As is clear in this title, the focus here is on how to keep the relationship between the labour and the management congenial. This actually focuses on assuring healthy union / organisation relationships.

One of the first overt statements of the HRM concept was made by the Michigan School (Fomburn *et al.*, 1984). They explained the human resource cycle that consists of four generic processes or functions. These are:

Selection – Matching available human resources to jobs.

Appraisal – Performance management.

Rewards – It must reward short as well as long-term achievements.

Development—Developing high quality employees.

They are of the opinion that the HR function should be linked to the line organisation by providing the business with good databases, by ensuring that senior managers give HR issues as much importance as they provide to other functions.

The Harvard model has integrated the history and practice of HRM particularly emphasising HRM as a general management function rather than personnel function only.

Figure below explains that the HRM policy should evolve taking into consideration stakeholder interest and situational factors, which will lead to HRM outcomes like commitment, congruence dependent on people.

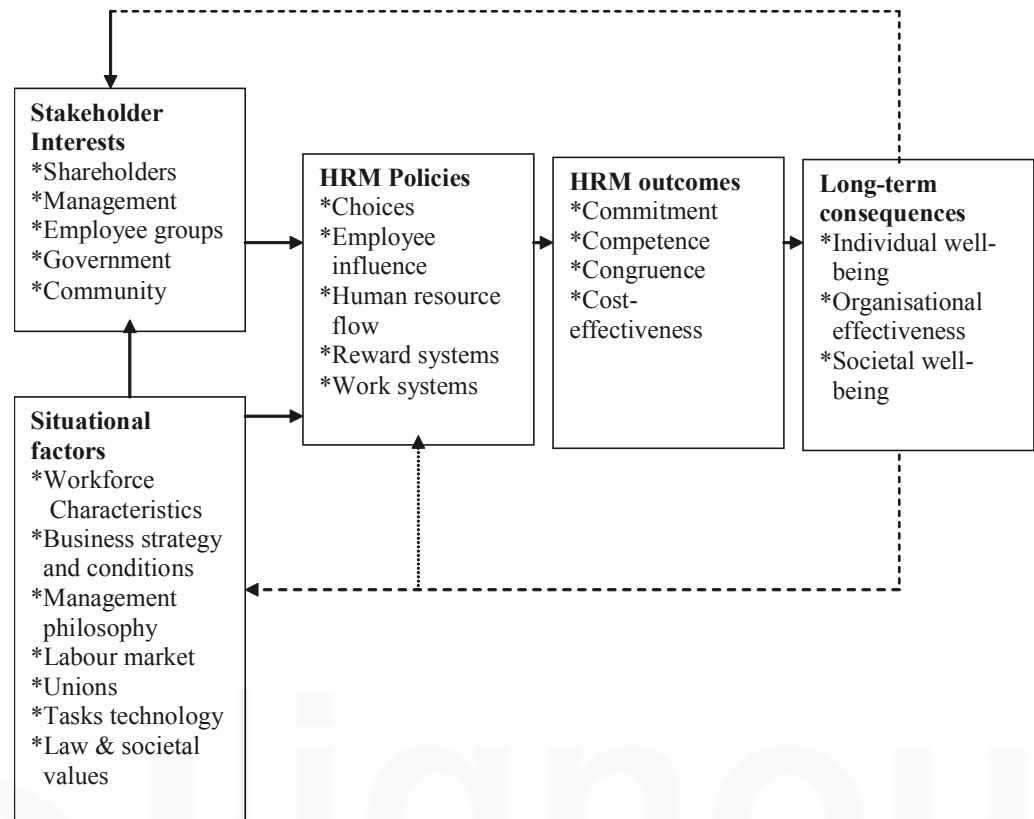


Fig. 2: Harvard Analytical Framework for HRM. Source: The Harvard Framework for HRM, Beer *et al.* (1984)

Also, workers started demanding whatever they expected from the employers in addition to their salaries. ‘Personnel’ came to be called ‘human resources’. Sharing the global thinking, Indian managers and behavioural scientists accepted and introduced such theories, models and concepts as theory X/Y/Z, two-factor theory of motivation, contingency model, social-comparison processes, Porter-Lawler model, socio-technical system, job enrichment, managerial grid, participative management, empowerment, quality of work life and total quality management.

The concept of HRM has further been expanded by Walton (1985) who states that the new HRM model involve policies that promote mutuality that is mutual goals, mutual influence, mutual respect, mutual rewards and mutual responsibility. The theory proposes that policies of mutuality will elicit commitment which in turn results in both economic performance and larger human development.

David Guest (1991) modified Harvard model further by defining four policy goals which are according to him testable hypotheses and these are:

- i) **Strategic integration:** That means the ability of the organisation to integrate HRM issues into its strategic plans.
- ii) **High commitment:** This indicates the behavioural commitment to pursue the agreed goals and attitudinal commitment reflected in a strong identification with the enterprise.
- iii) **High quality:** This refers to all aspects of managerial behaviour that bear directly on the quality of goods and services.
- iv) **Flexibility:** This means that there should be functional flexibility and there

should exist an adaptable organisational structure with the capacity to manage innovation.

1.4 HUMAN RESOURCE FUNCTIONS

Human resource functions involve majority of the tasks performed in an organisations to provide for and coordinate human resources. According to Pattanayak (2004) human resource functions are concerned with a cluster of activities that largely influence almost all areas of an organisation and aim at:

- Ensuring that the organisation satisfies all conditions of its equal employment opportunities and government stipulation.
- Conducting job analysis to fulfil the specific requirements for each job within an organisation.
- Predicting the human resource requirements necessary for the organisation to achieve its objectives—both in terms of number of employees and skills.
- Designing an outline plan and implementing it to fulfil the requirements.
- Recruiting and selecting personnel to fill up the vacancies of the jobs within an organisation.
- Training employees.
- Designing and implementing management and organisational development programmes.
- Prescribing systems for the performance appraisal of employees.
- Developing career plans for employees.
- Drawing and implementing compensation measures for all employees.

1.5 HUMAN RESOURCE DEVELOPMENT (HRD)

HRD is a positive concept in HRM in view of the fact that HRD is a means of helping people to acquire competencies, to sharpen their capabilities for serving the organisation in a more efficient manner. Further human beings also have a need to develop themselves professionally. Development of their capabilities keeps them psychologically vital. This development needs to be directed in terms of making it with organisational requirements.

1.5.1 Rationale

Precisely speaking HRD means developing or tapping hidden qualities in people in order to make them accomplish new functions optimally serving organisational and individual goals. According to Prof. T.V. Rao HRD is a process by which the employees of an organisation are helped in a continuous and planned way to :

- 1) acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles;
- 2) develop their general capabilities as individuals and discover and exploit their own inner potentials for their own and/or organisational development purposes;
- 3) develop an organisational culture in which superior-subordinate relationships,

team work and collaboration among sub-units are strong and contribute to the professional well-being, motivation and pride of employees.

1.5.2 Component Systems of HRD

There are a number of component systems of HRD which may be outlined as follows:

- 1) **Performance appraisal:** It may be done comparing the output that the employee produces with what he is supposed to produce. With the help of the rating scale the performance standard of the employee is evaluated as high, normal or poor.
- 2) **Potential appraisal:** Here, employee potential or capability to perform the function are examined and methods to improve skills are also evolved under this subsystem. The main components in potential appraisal are: (i) identification of functions in the organisation and qualities required to accomplish these functions; (ii) methods and instruments to measure these qualities, (iii) continuous assessment potentiality of each employee to perform upper level roles; (iv) elevation policy and appropriate feedback.
- 3) **Training and development:** HRD takes a practical shape only in this subsystem. The main purpose of training to provide learning opportunities and resources for: (i) improving performance on the present job, (ii) developing behavioural and managerial skills, and (iii) functioning effectively as an individual. These can be provided through suitably designed in-company programmes and deputations to external training programmes.
- 4) **Career planning and development:** Sometimes, it would be worthwhile to make new recruits aware of the various phases of development in the company and plan their specific career paths with senior employees. Necessary help may also be provided to those employees who may find it difficult to cope with realities in the beginning.
- 5) **Performance feedback and counselling:** Performance and potential appraisals are likely to remain a ritual if a climate for and skill of providing critical and supportive feedback to the employees by the boss or an expert is not appropriately designed and implemented. Honest differences in self-assessment and assessment by the concerned expert can be thoroughly discussed and a programme for further growth of the employees can be jointly worked out.
- 6) **Research and Organisational development:** Research is the only tool by which organisations identify the need for change in them to cope up with the conditions leading to their development. Research and organisational development are coupled together as a system of HRD mainly because the latter depends on the results of the research carried out time to time. This system aims at developing and maintaining an active profile of organisational health, and direction to improve the same.
- 7) **Data storage system:** This system provides complete information about the skills, capabilities, biographic data, performance appraisal rating, training data, etc. of every employee in the organisation. Good maintenance of such data will facilitate to the development of human resources systematically, identifying people having the required qualities whenever a vacancy arises.
- 8) **Job rotation and rewards:** In cases where the employees have been found to possess certain qualities, but do not have the opportunity to develop them, they

may be put into jobs that would help this development. Job rotations can be planned on the basis of potential appraisal. The job rotation can aim at giving opportunities to an individual both to test out his potential and to develop the same. Again, if a system of rewards through advanced increments and other forms of appreciation is instituted, it is likely to encourage competition.

1.5.3 Ideal HRD Climate

The HRD process can be facilitated by creating an optimum HRD climate. Such climate can be considered as consisting of a culture which involves the following:

- i) **Pro-activity:** Employees are so action-oriented that they are willing to take initiative and show a high degree of pro-activity.
- ii) **Openness and risk taking:** Employees have opportunity to express their ideas freely and the organisation has no hesitation to take risks, experiment with new ideas and new ways of doing things.
- iii) **Collabouration and no confrontation:** Employees spontaneously collabourate with each other and have a feeling of belonging to the same family and working for a common cause. They always avoid to hurt each other.
- iv) **Trust and authenticity:** Employees, groups and departments have a tendency to trust each other; they will do with a sense of responsibility and authenticity.
- v) **Autonomy:** Employees enjoy some freedom to act independently within the periphery of their role / job.
- vi) A dynamic organisation has the characteristics to make its employees dynamic and growth-oriented. Competence and dynamism of employees manifest spontaneously within a developed-oriented climate involving internalisation of HRD mechanism and component systems.

1.6 INDIAN SCENARIO

Several Milestones

The Royal Commission of Labour in India (1931) under the chairmanship of J.H. Whitley recommended the abolition of the 'Jobber System' and the appointment of labour officers in industrial enterprises to perform the recruitment function as well as to look after the welfare of the employees. After independence, a labour welfare officer was identified as personnel manager created by legislation under Section 49 of the Factories Act, 1946.

The role of a personnel manager was more of a custodian of personnel policy implementation and compliance to different acts of the Factories Law. Two professional bodies were formed namely, Indian Institute of Personnel Management (IIPM) at Kolkata and the National Institute of Labour Management (NILM) at Mumbai.

In 1980s, these two professional bodies merged together and formed the National Institute of Personnel Management (NIPM), headquartered at Kolkata. In the year 1990, another milestone was achieved by renaming of American Society for Personnel Administration (ASPA) as Society for Human Resource Management (SHRM). Over the years, a new approach—the Human Resource Management—has emerged which focuses more on development aspects of human resource with a pragmatic and flexible approach.

Earlier Condition

In the 1950's, the only expectation and belief was that employees were recruited to produce more and more. In the 60's, terms like manpower, staff and personnel came to be used and instead of controlling the employees, it was observed to be acceptable more and more to manage personnel with increased productivity if the workers could be organised for the work.

In the late 1970's, people realised that beyond a point, productivity depended on people. Also, workers started demanding whatever they expected from the employers over and above salaries. 'Personnel' came to be called 'human resources'. Sharing the global thinking, Indian managers and behavioural scientists accepted and introduced such theories, models and concepts as theory X/Y/Z, two-factor theory of motivation, contingency model, social-comparison processes, Porter-Lawler model, socio-technical system, job-enrichment, managerial grid, participative management, empowerment, quality of work life and total quality management.

Present Condition

Hierarchy, status, authority, responsibility, and accountability are structural concepts. But in the Indian context, emotions, feelings, empathetic perceptions, impressions and the affective components have influenced people more than anything else. In a work environment, people do not like being treated as puppets—blamed, belittled or bossed.

On the other hand, Indian managers feel they only should 'think' and let workers 'do'. The idea that boss is always right still persists. The boss-subordinate relationship here creates stressful situations, hampering the environment requiring an intervention to human resource management.

The subordinates expect that the boss should have integrity, higher performance skill, commitment, guidance and leadership qualities, support and patronizing tendencies, accessibility, wider vision, sense of empowerment and credibility.

On the other hand, the boss expects that his subordinates should have a commitment to job, integrity, competence, reliability, initiative, loyalty to the organisation, self-discipline and a good sense of accountability and job involvement (Pattanayak, 2004).

The Indian organisations are experiencing some transitions and changes. The workforce of the 50s and 60s have retired. The middle-level is now at the top with the hangover of all possible middle-class values. The new generation of MBAs are pouring into industrial organisations. Young executives in their mid-30s are heading HRD/HRM divisions in big companies.

Moreover, due to the unprecedented advancement in information technology, there is a growing need to understand and manage this transition, and give a direction to this change process effectively and efficiently.

In addition there is serious need for all concerns to try and transform atleast that part of the organisation, where they have the power, into learning segments which could then be synthesized into a learning whole.

1.7 LET US SUM UP

Human Resource Management (HRM) is the function within the organisation that focuses on recruitment of, management of and providing direction for the people who work in the organisation. The positive view of people working in the organisation as an asset with unlimited potential is the core concept of the human resource system.

Human Resource Development (HRD) is a positive concept in HRM because HRD is a means of helping people to acquire competencies, to sharpen their capabilities for providing more productive services to the organisation. Organisations are becoming more conscious to the rapid progress in technological and economic environment so as to meet the challenges of the change through relevant training to their personnel and try to learn new ways to do things. Apart from training and development there are other systems of development, viz., performance appraisal, potential appraisal, career planning and development, feedback and counseling, OD, etc. A dynamic organisation thus has the characteristics to make its employees dynamic and growth-oriented. Competence and dynamism of employees manifest spontaneously within a developed-oriented climate involving internalisation of HRD and component systems, and thereby enriching HRM at large.

1.8 UNIT END QUESTIONS

- 1) What do you mean by HRM and HRD?
- 2) Explain the Human Resource Wheel Developed by ASTD in 1983.
- 3) Narrate significant Human Resource Functions in an organisation.
- 4) Outline the component system of HRD.
- 5) Discuss the characteristics of the ideal HRD climate.

1.9 GLOSSARY

- HRM** : It is the function within the organisation that focuses on recruitment of, management of and providing direction for the people who work in the organisation.
- HRD** : It is the means of helping people to acquire competencies, to sharpen their capabilities for providing more productive services to the organisation.

1.10 SUGGESTED READINGS AND REFERENCES

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UNIT 2 IDENTIFYING AND MEASURING INDIVIDUAL DIFFERENCES IN JOB AND PEOPLE CHARACTERISTICS

Structure

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Individual Differences
- 2.3 Individual Differences in Personality
 - 2.3.1 Big Five Personality Factor
 - 2.3.2 Self Esteem
 - 2.3.3 Locus of Control
 - 2.3.4 Goal Orientation
 - 2.3.5 Introversion and Extroversion
 - 2.3.6 Dogmatism
 - 2.3.7 Authoritarianism
- 2.4 Attitudes
- 2.5 Individual Differences in Cognitive Moral Development
- 2.6 Abilities and Skills
 - 2.6.1 Abilities
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 - 2.6.3 Emotional Intelligence
- 2.7 Identification of Job Characteristics
 - 2.7.1 Job Analysis
 - 2.7.2 Techniques of Job Analysis
 - 2.7.3 Job Specification
- 2.8 Let Us Sum Up
- 2.9 Unit End Questions
- 2.10 Glossary
- 2.11 Suggested Readings and References

2.0 INTRODUCTION

All of the ways in which people differ from one another in their physiological and bodily conditions, in their past experiences and background, in their abilities, personality pattern as well as in psychological variables. It is, therefore, natural that if ten people are put in the same situation all of them do not behave alike. Each person's behaviour differs from that of others in some respect or to some degree. Thus, if three boys are walking along the road and they come across a cat, one would like to catch the cat, the other may start pelting stones at it and the third will probably run away because he has been told that it is a bad sign to have a cat cross one's path. These individual differences result from a number of factors or causes. In this unit we will be dealing with individual differences on a large number of factors, which includes personality, attitude, ability and skills. This unit also considers how to identify job characteristics to suit the individual differences and presents the various techniques of job analysis and job specification.

2.1 OBJECTIVES

After reading this unit, you will be able to:

- Define individual differences;
- Describe the various factors of personality on which individual differences are obtained;
- Explain individual differences in attitudes of individuals;
- Delineate the factors on which cognitive differences are obtained;
- Differentiate between ability and skill;
- Define emotional intelligence;
- Describe the methods of job analysis; and
- Analyse job specification.

2.2 INDIVIDUAL DIFFERENCES

Some 2,000 years ago, the Greek philosopher Theophrastus asked, “Why is that while all Greece lies under the same sky and all Greeks are educated alike it has befallen us to have characters variously constituted?” (Eysenck, 1982). This question as to why are people different is as important for understanding human behaviour today as it was in ancient Greece.

The term *individual differences* refer to the fact that people vary in many ways. Although to study individual differences seems to be to study variance, how people are different, it is also to study the central tendency, how well can a person be described in terms of an overall within person average. Indeed, perhaps the most important question of individual differences is whether people are more similar to themselves over time and across situations than they are to others, and whether the variation within a single person across time and situation is less than the variation between people. A related question is that of similarity, for people differ in their similarities to each other. Questions of whether particular groups (e.g., groupings by sex, age, culture, or ethnicity, etc.) are more similar within than between groups are also questions of individual differences.

Research in individual differences addresses three broad questions, viz.,

- 1) developing an adequate descriptive taxonomy of how people differ
- 2) applying differences in one situation to predict differences in other situations
- 3) testing empirically the theoretical explanations of the structure and dynamics of individual differences.

Taxonomic work has focused on categorizing the infinite ways in which individuals differ in terms of a limited number of latent or unobservable constructs. This is a multi-step, cyclical process of intuition, observation, deduction, induction, and verification that has gradually converged on a consensual descriptive organisation of broad classes of variables as well as on methods for analysing them. Most of the measurement and taxonomic techniques used throughout the field have been developed in response to the demand for selection of individuals for schooling, training and business applications. Of the major sources of individual differences, one may

mention personality, attitudes, ethical behaviours and abilities and skills. Let us take up individual differences in regard to personality.

2.3 INDIVIDUAL DIFFERENCES IN PERSONALITY

Behaviour always involves a complex interaction of person and the situation. Events in the surrounding environment (including the presence and behaviour of others) strongly influence the way people behave at any particular time; yet people always bring something of themselves to the situation. This “something”, which represents the unique qualities of the individual is *personality*. No single definition of personality is accepted universally. However, one key idea is that personality represents personal characteristics that lead to consistent patterns of behaviour. Thus, personality is a person’s set of relatively stable characteristics and traits (which typically refers to the basic components of personality) that account for consistent patterns of behaviour in various situations. Each individual in some ways is like other people and in some ways is unique.

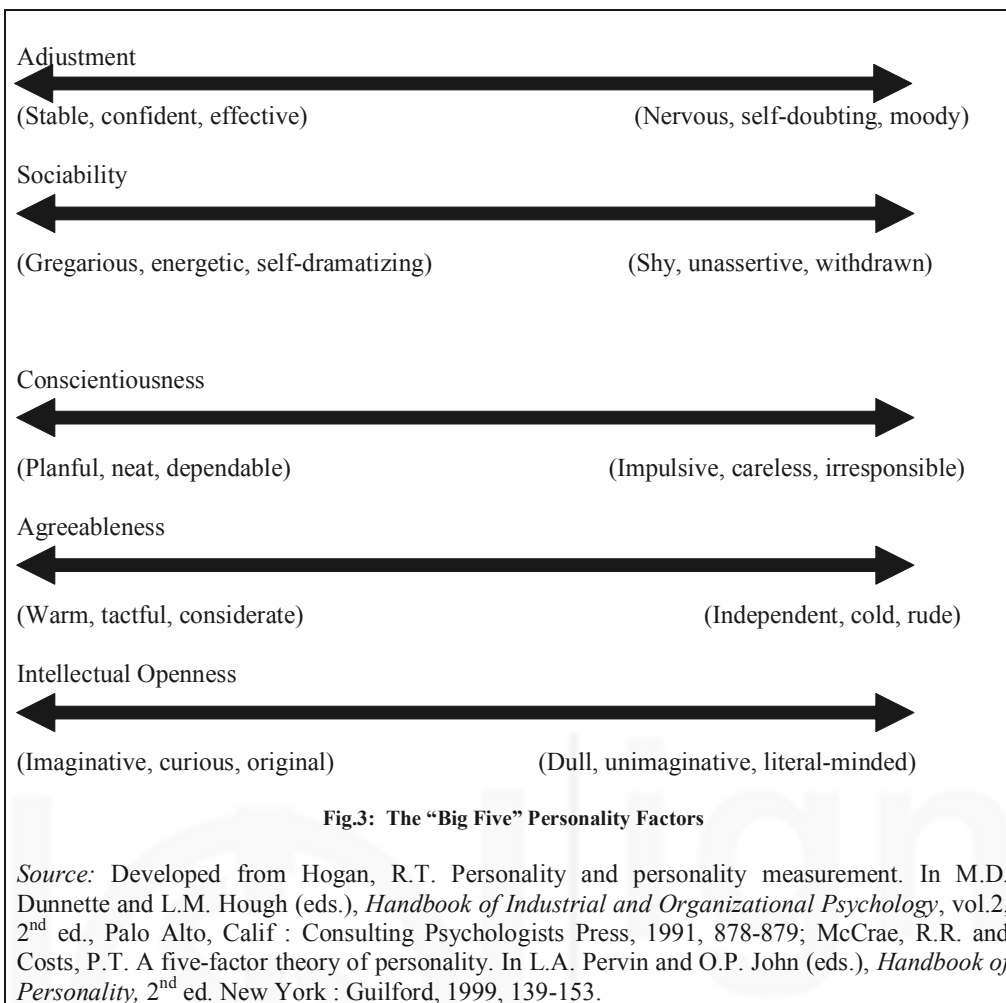
An individual’s personality is the product both of inherited traits or tendencies and acquired experiences through two primary sources, heredity and environment or nature and nurture. Such experiences occur within the framework of the individual’s biological, physical and social environment- all of which are modified by the culture, family, and other groups to which the person belongs.

The term *culture* refers to the distinctive ways that different human populations of societies organise their lives. Scientists working within different cultures have clearly demonstrated the important role that culture plays in personality development. The primary vehicle for socialising an individual into a particular culture is person’s immediate *family* i.e., both parents, sibling, grandparents, aunts, uncles, cousins, etc.

Thus, the first group to which most individuals belong is the family. People also participate in *various groups* during their lives, beginning with their childhood playmates, teenaged schoolmates, sports teams, and groups to adult work and social groups. Again, each person’s life also is unique in terms of specific events and experiences, which can serve as important determinants of personality.

2.3.1 Big Five Personality Factor

An individual’s personality may be described by a set of factors. Different scientists proposed different models of personality having different set of factors of which Big Five (Costa & McCrae, 1978) is very significant because of its applicability in organisational settings. Specifically, these personality factors describe an individual’s *degree of adjustment, sociability, conscientiousness, agreeableness, and intellectual openness* (Figure below).



In studying individual differences in job we are particularly interested in the linkage between personality and behaviour in the work setting. Many specific personality dimensions including *self-esteem*, *locus of control*, *goal orientation*, *introversion/extroversion*, *dogmatism*, and *authoritarianism* have been shown to have important relationships to work behaviour and outcomes.

2.3.2 Self Esteem

Self-esteem is the result of an individual's continuing evaluation of himself or herself. Individuals with high self-esteem have been observed to take risks in job selection, one attracting to high-status occupations (e.g., medicine, engineering or law), and are more likely to choose unconventional or nontraditional jobs (e.g., forest ranger or jet pilot) than are individuals with low self-esteem. In terms of the Big Five Personality factors, self-esteem would be part of the adjustment factor.

2.3.3 Locus of Control

Locus of Control refers to the extent to which individuals believe that they can control events affecting them. Individuals with high internal locus of control (internals) believe that their own behaviour and actions primarily, but not necessarily totally, determine many of the events in their lives while who have high external locus of control (externals) believe that chance, fate, or other people primarily determine what happens to them. Internals are more likely to try to influence or persuade others and are less likely to be influenced by others, more achievement oriented than externals. Again, externals appear to prefer more structured, directive style of supervision while

comparing with internals. Locus of Control typically is considered to be a part of the *conscientiousness* factor in Big Five Personality Factor (Figure 3).

2.3.4 Goal Orientation

Goal orientation or the preference for one type of goal versus another is another individual difference of importance for behaviour in work settings. Specifically, two orientations are considered important in terms of understanding some aspects of individual job performance. A *learning goal orientation* is a predisposition to develop competence by acquiring new skills and mastering new situations, whereas a *performance goal orientation* is a predisposition to demonstrate and validate competence by seeking favourable judgements from others (e.g., supervisors) and avoiding negative judgements. The implications of these goal orientations for work behaviour are crucial. As for example, employees with strong performance goal orientation may avoid challenges at work and perform poorly when they encounter obstacles that are difficult to overcome. But employees with a strong learning goal orientation strive to overcome failure and setbacks by increasing their efforts and seeking new solutions to the problem.

2.3.5 Introversion and Extroversion

Introversion is a tendency to be directed inward and have a greater affinity for abstract ideas and sensitivity to personal feelings. Introverts are quiet, introspective, and emotionally unexpressive.

Extroversion is an orientation toward other people, events, and objects. Extroverts are sociable, lively, impulsive, and emotionally expressive. Introversion and extroversion are part of the collection of traits that comprise the *sociability* factor of Big Five (Figure on page 23).

The evidence suggests that introverts perform better alone and in a quiet environment, whereas extroverts perform better in an environment with greater sensory stimulation such as noisy office with many people and a high level of activity.

2.3.6 Dogmatism

Dogmatism refers to the rigidity of a person's beliefs. The high-dogmatic (HD) is close-minded, and the low-dogmatic (LD) person is open-minded. As a result, HDs appear to depend more on authority figures in the work-setting for guidance and direction and are more influenced by them than are LDs. A high degree of dogmatism is related to a limited search for information in decision-making situations, which sometimes leads to poor managerial performance.

2.3.7 Authoritarianism

Authoritarianism is closely related to dogmatism but narrower in scope. The *authoritarian personality* describes someone who adheres to conventional values, obeys recognised authority, exhibits a negative expression of personal feelings. In work setting, the authoritarian personality probably is subservient to authority figures and may even prefer superiors who have a high directive, structured leadership style. Both dogmatism and authoritarianism are related to the intellectual openness factor of Big Five (Figure on page 23).

2.4 ATTITUDES

Attitudes are another type of individual difference that affects behaviour. Attitudes are relatively lasting feelings, beliefs, and behavioural tendencies directed toward specific people, groups, ideas, issues, or objects (Myers, 1993). Attitudes have *affective* (feelings, emotions), *cognitive* (beliefs, knowledge), and *behavioural* (a predisposition to act in a particular way) components. These components do not exist or function separately. For example, suppose that an individual holds a strong, negative attitude about the use of nuclear power. During a job interview with the representative of a large corporation, he discovers that the company is a major supplier of nuclear power generation equipment. He might feel a sudden intense dislike for the company's interviewer (the affective component). He might form a negative opinion of interviewer based on beliefs and opinions about the type of person who would work for such a company (the cognitive component). He might be tempted to make an unkind remark to the interviewer or suddenly terminate the interview (the behavioural component).

However, the person's *actual* behaviour may or may not be easy to predict and will depend on several other factors. The Behavioural Intentions Model (Ajzen and Fishbein, 1980) is an attempt to explain the relationships between attitudes and behaviour. The model suggests that focusing on a person's specific *intention* to behave in a certain way makes behaviour more predictable and the relationship between the attitude and behaviour more understandable than if intention is not considered. Figure below illustrates the model and shows that intentions depend on both attitudes and norms regarding the behaviour.

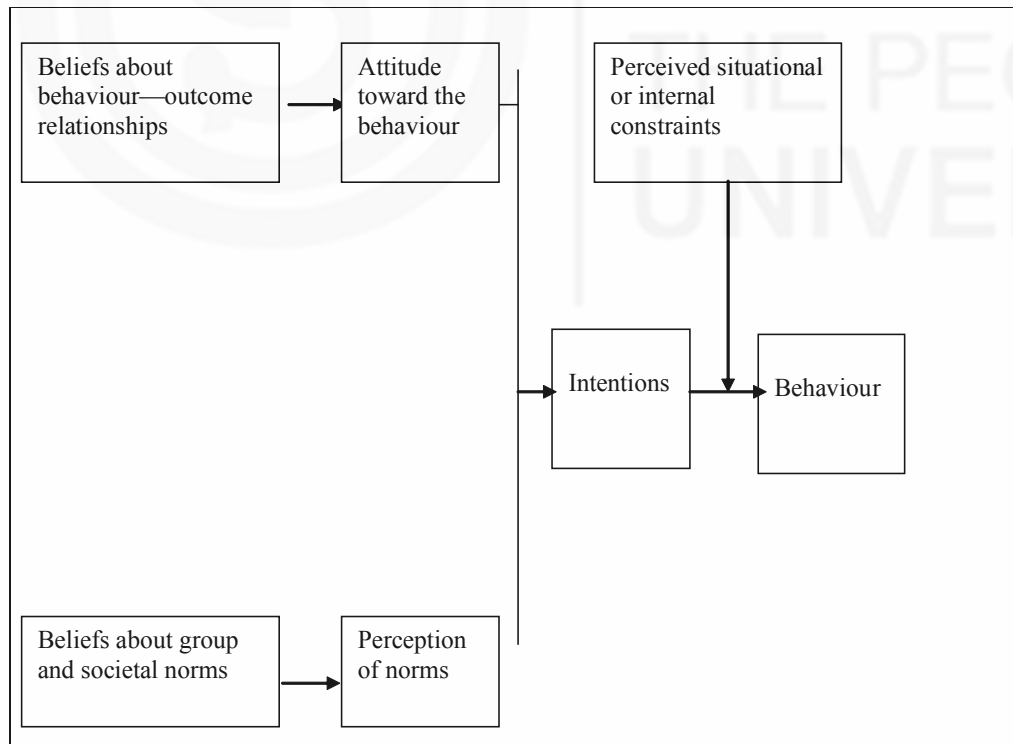


Fig. 4: Behaviour Intentions Model

Source: Adapted from Ajzen, I., and Fishbein, M. *Understanding Attitudes and Predicting Social Behaviour*. Englewood Cliffs, N.J.: Prentice-Hall, 1980, 8.

2.5 INDIVIDUAL DIFFERENCES IN COGNITIVE MORAL DEVELOPMENT

Ethical behaviour in organisations has, appropriately, received great attention in recent years. Part of this attention focuses on the influence that individual differences might have on ethical behaviour. For example, one study suggested that locus of control and cognitive moral development are important in explaining whether people will behave ethically or unethically (Trevino & Youngblood, 1990).

Cognitive moral development refers to an individual's level of moral judgement. People seem to pass through stages of moral reasoning and judgement as they mature. Judgement with regard to right and wrong becomes less dependent on outside influence (e.g., parents) and less self-centred (It's right because it is right for me). At higher levels of cognitive moral development, individuals develop a deeper understanding of the principles of justice, ethical behaviour and balancing individual and social rights.

Research has demonstrated that individuals with high internal locus of control exhibit more ethical behaviour when making organisational decisions than do individuals with high external locus of control. Further, individuals with higher levels of cognitive moral development are more likely to behave ethically than are others.

2.6 ABILITIES AND SKILLS

Although to some psychologists the term personality refers to all aspects of person's individuality, typical usage divides the field into studies of ability and personality. In understanding an individual, as for example, his personality and ability cannot be kept apart. An individual's performance in school, on the job or in any other context, is influenced by his achievement drive, his persistence, his value system, his freedom from handicapping emotional problems or other characteristics traditionally classified under the heading of "personality".

The accurate understanding of cognitive and psychomotor skills and abilities is an important concern to industrial and organisational psychologists. Measures of ability and skill provide basic data for making decisions about selection, classification and training. There is now considerable evidence that the accurate assessment of ability in selection can lead to substantial increases in productivity.

However, whatever might be the theoretical foundations, the individuals do differ among themselves in abilities, aptitudes and skills.

2.6.1 Abilities

Ability is the existing capacity of an individual to perform some function, whether physical, mental or a combination of the two, without further education or training.

2.6.2 Aptitude

Aptitude is the suitability, natural ability or capacity to learn especially potential rather than existing capacity to perform some function, whether physical, mental or a combination of the two, given the necessary education or training.

In fact, intelligence or the cognitive ability has been conceived and defined variously by different psychologists (Colman, 2009) which includes "the ability to carry on abstract thinking" (L.M. Terman, 1877-1956); "the global capacity of the individual

to act purposefully, think logically and deal effectively with the environment” (D. Wechsler, 1896-1981).

According to E.L. Thorndike (1874-1949) intelligence is a complex ability operating at three levels : (i) *mechanical level* – relates to the ability to manipulate things, employ tools effectively, etc., many of which could be acquired through learning; (ii) *abstract level* – involves imagination, thinking, the use of numbers, responding to speech, use of language, etc.; (iii) *social level* – essential to understand others, getting along with them, etc. Thorndike further observed that many operations involve more than one level.

A student studying engineering subject or computer sciences will find that both concrete and abstract levels of operations are involved. Similarly students in courses like public relations, marketing, business management and other allied courses will have to function at the social level also. However, it may be seen that as society advances technologically and socially, abstract and social level operations acquire more and more importance. *Individuals*, according to Thorndike, *differ* on all these levels or types of intelligence. Later views on intelligence, while not strictly agreeing with Thorndike’s concept of levels of intelligence nevertheless have developed tests to measure mechanical, abstract and social dimensions of intelligence.

Furthermore, L.L. Thurstone (1887-1955) postulated a number of *primary mental abilities* to conceptualise intelligence (Parameswaran & Beena, 2002) as follows :

Numerical ability	Ability to deal with numbers and manipulate them
Reasoning ability	Ability to apply logic like induction and deduction and arrive at conclusion or solutions when given a series of related situations.
Verbal fluency	Competence in language and the use of words fluently
Verbal comprehension	The ability to understand materials presented in the form of words.
Perceptual ability	Ability to perceive situations which are complex with a variety of elements and organise them in order to arrive at a meaningful perception.
Memory	Ability to remember facts, situations, experiences etc., which often become relevant to solve a problem or answer a question in the present.
Spatial ability	Ability to organise space and stimulation coming from different directions, coordinate the same and integrate one’s behaviour (‘space’ means not only physical space but also psychological space, experiences and events which occurred at different times and in different contexts).
Fluid intelligence	A basic capacity to analyse, remember, understand and arrive at inductive and deductive findings, arrive at solutions to problems and in general, learn in new situations.

Crystallised intelligence	It is a form of specific abilities like verbal ability, numerical ability etc. The crystallised intelligence emerges as a result of repeated experiences in the application of fluid intelligence and in that sense is acquired.
IQ	It is the standard index of intelligence is the I.Q. score when $I.Q. = \frac{M.A.}{C.A.} \times 100$ where I.Q. means Intelligence Quotient, M.A. means mental age which is determined by any standard intelligence test and C.A. is chronological age. Thus individual difference in intelligence may be determined by I.Q. level.

2.6.3 Emotional Intelligence

An individual difference that has recently received a great deal of interest is the notion of emotional intelligence. According to psychologist Daniel Goleman, emotional intelligence or E.Q. actually is more crucial than general intelligence (I.Q.) in terms of career success.

Emotional Intelligence refers to how well an individual handles himself/herself and others rather than how smart he or she is or how capable in terms of technical skills. Emotional intelligence includes the attributes of *self-awareness, impulse control, persistence, confidence, self-motivation, empathy and social deftness*.

In organisations undergoing rapid change, emotional intelligence may determine who gets promoted and who gets passed over; or who gets laid off, and who stays, according to Goleman.

Studies have consistently shown, for example, that the competencies associated with emotional intelligence (e.g., the ability to persuade others, the ability to understand other, and so on) are twice as important for career success than are raw intelligence (I.Q.) or technical competencies (Hellriegel *et al.*, 2001).

Besides above there may be a host of other skills and aptitudes as well as other capabilities including interest pattern along which people do differ among themselves. Hence, identification of such characteristics through appropriate measurement techniques are essential for the best and effective utilisation of those individuals specifically for performing tasks efficiently or playing an efficient role in an organisation as well as for the cause of social welfare at large.

Hence the identification of the relevant individual difference characteristics in terms of the above mentioned traits in an individual applicant (which seemed to be the most appropriate set for the earned job) constitute the *worker analysis*.

2.7 IDENTIFICATION OF JOB CHARACTERISTICS

Let us take an example. Suppose a personnel manager or human resource manager finds that a group of new employees must be hired to operate the highly complex machinery that will be required to produce a new product. How can these new workers be found?

2.7.1 Job Analysis

Primarily, the nature of the job for which employees are being sought must be

thoroughly investigated. The organisation will not know what abilities and personality characteristics to look for in potential employees unless it is known in detail what they will be expected to do to perform the job successfully. A process known as *job analysis* is undertaken to determine the specific skills and abilities as well as personality characteristics or traits necessary for playing an efficient role in performing the job. Thus the purpose of job analysis is to describe, in specific terms, the precise nature of the component tasks performed by the workers on the particular job. Job analysis includes information on the kind of equipments or tools used, the operations performed, unique aspects of the job such as safety hazards, education or training required, pay scale and so on. Unless the organisation knows exactly what is required for the successful performance of a job, it will have no way of known what qualities to seek in applicants for the job.

Job analysis also has other important uses in organisational life (Grant, 1988). To establish a training programme for a particular job, for example, the nature of the job must be known, an organisation cannot expect to train a person to perform a job unless the specific tasks, steps and operations necessary for job success are known. Job analysis can aid in efforts to redesign a job so that it can be performed more efficiently.

Job analysis can be conducted by a number of techniques. An investigator might consult the *published analysis* of similar jobs. Again a standard and comprehensive list of jobs is found in the *Dictionary of Occupational Titles (DOT)*, developed by the Employment and Training Administration of the U.S. Department of Labor (Levine *et al.*, 1988). This work defines briefly some 22,000 jobs. The definitions are concise and not as detailed or comprehensive as a job analysis must be, but they provide valuable information with the general form of any job.

2.7.2 Techniques of Job Analysis

Techniques for conducting job analysis include (1) interviews or through questionnaires (structured and unstructured) those who are directly connected with the job, (2) directly observing the workers performing the job, (3) having the workers keep a systematic log of daily job activities, (4) recording critical incidents that are vital to successful performance of the job, and (5) the job element method.

The interview approach involves generally an extensive interviewing of those directly related to the job, i.e., the workers currently performing the job, their supervisors, and even the instructors who trained the workers for the job. This can involve either face-to-face interviewing of individuals or a group of workers or the use of questionnaires.

Two types of questionnaire are used in job analysis: the *unstructured questionnaire* and the *structured questionnaire*. In the unstructured or open-end approach, the workers or their supervisors describe in their own words the details of the job and the tasks performed. Some respondents, however, may be unable or unwilling to describe all aspects of their jobs in sufficient detail. They may overlook operations that have become habitual, or they may be insufficiently articulate to analyse the tasks they perform. Others may find it boring to fill out such a questionnaire and, therefore, offer only a minimal amount of information to get finished as quickly as possible (Schultz & Schultz, 1990).

In the structured-questionnaire approach, workers or supervisors are provided with specific and detailed descriptions of a variety of tasks, operations, working conditions

and the like. They are asked to rate the items or to select those that best describe their jobs.

A second approach to job analysis is *direct observation* of the worker on the job. Sometimes this involves simply watching the workers perform their various tasks, but in other occasions sophisticated methods of observation such as filming are used. It is well known from psychological study that individuals may behave otherwise when they know they are being watched, so it is necessary for the analyst to remain as unobtrusive as possible. Also, the analyst must observe a few workers (not just one) and must make the observations at various times during the workday to take account of changes caused by factors such as fatigue (for example, a worker may be more productive in the morning than in late afternoon).

A third technique of job analysis requires the workers to keep a *systematic activity log* of everything they do in a given period of time. If these records are carefully maintained, they frequently reveal details of the job not otherwise obtainable or observable.

Another approach is the *critical incidents technique*, which documents those behaviours (incidents) that are salient to the successful performance of the job. The objective is to identify from supervisors, co-workers, and others familiar with the job, behaviours that differentiate successful from unsuccessful workers. The critical-incidents technique focuses on the specific acts that lead to desirable or undesirable consequences on the job. A single critical incident is of little value, but hundreds of them can effectively describe a job task sequence in terms of the unique pattern of behaviour minded for successful performance.

Another approach to job analysis is the *job-element method*, which is used extensively to develop selection procedures, performance appraisal techniques, and curricula for training programme. Experts on the job in question, including both supervisors and experienced employees, develop a number of specific job elements that are defined in terms of the knowledge, skills, abilities, and other personal characteristics required to perform the job. The experts rate every element on each of four scales (Ash, Levine & Sistrunk, 1983).

What relative portion of even barely acceptable employees are good in the element?

How important is the element in picking out the superior employee?

How much trouble is likely if the element is ignored when choosing among applicants?

To what extent can job openings be filled if the element is required in all new employees?

Investigation comparing the effectiveness of the different approaches to job analysis has indicated that they vary in their usefulness. Therefore, the choice of a specific technique must depend on an organisation's reasons for conducting the job analysis in the first place.

In addition, study has shown that a combination of methods rather than just a single technique will ensure greater accuracy of job description (Levine, Thomas & Sistrunk, 1988; Zedeck & Cascio, 1984).

Job analysis has always been a very significant aspect of the selection process, but today it is even more vital because of the equal employment opportunity legislation. Every employing organisation must be able to justify each of its job requirements to

show that whatever it asks of a job applicant is related to the ability to perform the job in question and is not being used as a tool to discriminate against certain kinds of people. A detailed job analysis helps provide justification for actual job requirements.

2.7.3 Job Specification

On the basis of the information collected in the job analysis, a job specification (in terms of the psychological determinants, i.e., relevant abilities and skills, personality traits, interest pattern, attitudes and moral behaviour, etc.) is written that defines the characteristics to be sought in those persons who apply for the job.

Accordingly, proper assessment techniques should be applied to identify those persons possessing the appropriate or optimum amount of characteristics to satisfy the job specific under study. In this way matching the right person with the right job has been accomplished. In this context it is also relevant to mention that problems of organisational entry, which involve the applicant's preferences and expectancies as well as the nature of the matching efforts, are among the first to be dealt with the proper identification in the selection process.

A person's first job experience influences the rest of his or her working life; it is thus vital that applicant's expectancies match the realities of the job. This can be accomplished through a realistic job preview, an important aspect of identifying the right person for the relevant job. When both good and bad parts of the job are presented, applicants do not maintain unrealistic expectations about the work. The identification and matching process have been aided by psychological studies on the satisfactions job applicants desire in their work and the characteristics organisations are seeking among potential employees (Schultz & Schultz, 1990).

2.8 LET US SUM UP

Individuals do differ among themselves in a host of significant variables like personality, intelligence or ability, aptitude, attitudes, interest etc. Such individuals characteristics have been shown to have significant relationships to organisational performances and outcomes. Like individual characteristics various jobs or organisational tasks in the society have had their specific requirements or demands that may be fulfilled by specific individuals having appropriate set of characteristics in terms of personality, ability, attitudes, etc. Such process may be accomplished by matching the right persons with right job, is certainly a vital and complex process.

The primary step in such process is job analysis which involves determining the characteristics of a job and the attributes required to perform it for purposes of fitting (through selection and placement) of employees, evaluation of employee productivity for purposes of promotion and design of training programmes for employees. It usually begins with a job description – a detailed description, often agreed between management and work force, of the work normally done by a person carrying out the job, including all relevant duties and responsibilities.

The next step is the development of a job specification – a record of the work that a person in the job ought ideally to do.

The final step is the specification of a set of job requirements – personality pattern, abilities and skills, competencies and qualifications needed by a person to perform the job satisfactorily. The list of job requirements may be viewed as a distillation of the personal characteristics or factors that are important in carrying out the work.

2.9 UNIT END QUESTIONS

- 1) Outline the basic sources of individual differences among people.
- 2) Identify some examples of specific personality traits that have important relationships to work behaviour.
- 3) Define job analysis. Give brief account of the techniques to conduct the job analysis.
- 4) What do you mean by primary mental abilities? Briefly discuss the set of primary mental abilities following L.L. Thurstone.
- 5) Discuss the relationship between individual differences and ethical behaviour.

2.10 GLOSSARY

Personality	: it is an individual's set of relatively stable characteristics and traits that account for consistent pattern of behaviour. Personality has various dimensions or factors.
Self-esteem	: it is the result of an individual's continuing evaluation of himself or herself.
Locus of control	: it refers to the extent to which individuals believe that they can control events affecting them.
Goal orientation	: it reveals the preference for one type of goal versus another.
Dogmatism	: it refers to the rigidity of a person's beliefs.
Ability	: it is the developed skill, competence or power to do something, especially existing capacity to perform some function
Emotional intelligence	: it is the ability to monitor one's own and other people's emotions.

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UNIT 3 PSYCHOLOGICAL ASSESSMENT AND TESTING PROCEDURE: INDUSTRIAL AND ORGANISATIONAL TESTING

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Interview as Assessment Techniques
- 3.3 Psychological Tests and its Characteristics
 - 3.3.1 Standardisation
 - 3.3.2 Objectivity
 - 3.3.3 Reliability
 - 3.3.4 Validity
 - 3.3.5 Norms
- 3.4 Purpose of Psychological Tests
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 - 3.4.2 Placement
- 3.5 Establishment of an Assessment or Testing Procedure for Industrial/
Organisational Setting
- 3.6 Classification of Psychological Tests
 - 3.6.1 Test Administration Perspective
 - 3.6.2 Computer Assisted Testing
 - 3.6.3 Speed and Power Tests
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 - 3.6.5 Objective and Subjective Scoring
 - 3.6.6 Characteristics Perspective
- 3.7 Cognitive Ability
 - 3.7.1 The Otis Self-administering Test of Mental Ability
 - 3.7.2 The Wonderlic Personnel Tests
 - 3.7.3 The Wechsler's Adult Intelligence Scale-Revised (WAIA-R)
 - 3.7.4 The Raven's Progressive Matrices (RPM)
- 3.8 Aptitude Tests
- 3.9 Motor Ability Tests
- 3.10 Personality Tests
 - 3.10.1 Self Report Inventories
- 3.11 Projective Tests
- 3.12 Assessment of Interest
- 3.13 Advantages and Limitations of Psychological Testing
 - 3.13.1 Problems and Limitations of Psychological Testing
- 3.14 Let Us Sum Up
- 3.15 Unit End Questions
- 3.16 Glossary
- 3.17 Suggested Readings

3.0 INTRODUCTION

Psychological assessment is the appropriate understanding of the psychological attributes or characteristics of an individual or group of individuals using objective techniques of measurement. Psychological tests are measuring devices that are used to assess a sample of behaviour objectively, consistently and systematically. Industrial and organisational psychology is the field of psychology that applies psychological principles to work related issues. There are a variety of assessment techniques. They range from unstructured interview to structured psychological test. The main goal of these techniques is to predict job performance. Each technique has its own relative strengths and weaknesses in this regard. The unit 1 starts with assessment techniques and puts forward the important characteristics of psychological tests. The unit then presents the purposes of psychological tests and the manner in which the psychological tests are classified. The various dimensions that are being tapped by psychological tests are then taken up and finally the advantages and disadvantages of psychological tests are discussed.

3.1 OBJECTIVES

After reading this unit, you will be able to:

- Define psychological assessment;
- Describe the characteristic features of psychological tests;
- Explain the purposes of psychological tests;
- Classify the psychological tests on certain criteria;
- Present the various psychological tests; and
- Analyse the advantages and disadvantages of the tests.

3.2 INTERVIEW AS ASSESSMENT TECHNIQUES

A very commonly employed selection technique is a *job interview*. Job interview can be unstructured or structured. Let us see what is unstructured interview and then consider the structured interview.

- i) **Unstructured Interview:** In an unstructured interview, the interviewer engages in dialogue with the interviewee that does not follow a predetermined format, questions may vary from applicant to applicant, and there is usually no standardised scoring method. Consequently, validating this technique as a job performance predictor is quite difficult (e.g., one applicant may have the opportunity to respond favourably to a question that was not asked of another or vice versa).
- ii) **Structured Interview:** In contrast, through a structured interview all applicants are judged on responses to the same questions asked in the same format. Structured interviews provide for reliable and consistent scoring results. Also, if interviews are conducted by a panel of interviewers their predictive value increases. Basic weaknesses of interviews are:
 - 1) Failure of interviewers to agree,
 - 2) Failure to interviews to predict job success,
 - 3) Pressure of interview situation,

- 4) Interviewers' subjective standards of comparison, and
 - 5) Interviewers' prejudices.
- iii) **Situational Interview:** Again a different type of interview, the *situational interview*, is developed specifically to meet the needs of a particular job. The interview questions are not designed to inquire into general characteristic, traits, or abilities, but rather into the actual behaviours needed for the job in question. The job behaviours are determined by a systematic job analysis conducted by the critical-incidents technique.

In developing the situational interview the primary step is to prepare a list of critical incidents that differentiate between current successful and unsuccessful employees. These incidents are written by supervisors who have comprehensive knowledge of the job. The supervisors determine *benchmarks* for scoring the critical incidents. Because of the use of the benchmarks developed by persons who have detailed knowledge of the job, the scoring of the situational interview is objective and has been observed to be most valid interview for job success (Schultz & Schultz, 1990).

3.3 PSYCHOLOGICAL TESTS AND ITS CHARACTERISTICS

Well-developed and soundly researched psychological tests must meet and satisfy the following characteristics, namely, Standardisation, Objectivity, Reliability, Validity, Norms etc.

3.3.1 Standardisation

It refers to the consistency or uniformity of the conditions and procedures for administering a test. If we want to make a comparative evaluation of the performances of many individuals on the same test, it is obvious that they all take that test under identical circumstances. Any change in testing procedure may produce a change in individual performance on the test.

3.3.2 Objectivity

It refers primarily to the scoring of the test result for a test to be scored objectively, it is necessary that anyone scoring the test be able to obtain the same results.

3.3.3 Reliability

It refers to the consistency of response on a test and can be determined in three ways : the *test-retest method* (which involves administering a test twice to the same group of individuals and the correlating the two sets of scores); the *equivalent or parallel forms method* (it uses the test-retest approach but instead of taking the same test a similar form of the test is given and the two sets of scores are correlated) and the third approach is the split-half method (here the test is taken once, divided in half and the corresponding two sets of scores are correlated with each other). Whatever method is used the reliability coefficient should exceed atleast +0.70.

3.3.4 Validity

The most important requirement in evaluating any psychological test is that it measures accurately what it is intended to measure. This is technically called as validity. Personnel psychologists are concerned with the approaches to criterion related validity, i.e., *predictive validity* (how well the test scores predict the future job success) and

concurrent validity (how well the test scores speak about the present status of the job performance).

However, another approach is the *rational validity* which focuses mainly on the nature of the test itself, its structure and content. This validity is established by either *construct validity* or *content validity*. Validity coefficients (the correlation between test scores and performance) around +0.30 to +0.40 may be considered acceptable.

Tests are no longer considered to be differentially valid. Researchers are investigating the concept of *validity generalisation*. A test valid for one job will be valid for other jobs. Therefore, tests may no longer need to be validated every time they are applied to a different job or company. Furthermore the *Equal Employment Opportunity Commission (EEOC)* in various countries has prescribed the kinds of validation studies that must be conducted on all tests used for selection to ensure that they are measuring characteristics that are clearly related to the job in question but certainly not discriminate applicants because of their race, religion, sex or national origin.

3.3.5 Norms

To interpret the results of a psychological test, a frame of reference or point of comparison must exist so that the performance of one individual can be compared with the performance of other, similar individuals. This is obtained from *test norms*, that refers specifically to the average or typical performance of a large group of people similar in nature being tested.

Self Assessment Questions

1) Why is psychological testing necessary for I/O psychology?

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2) Explain unstructured and structured interview.

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3) Define the following:

- a) Reliability b) Validity c) Norms

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3.4 PURPOSES OF PSYCHOLOGICAL TESTS

By and large, psychological tests serve two purposes: (i) Selection and (ii) Placement. Both functions involve making a prediction about an individual's future behaviour or

performance and for that the same kinds of tests are used for both purposes while the difference lies in how the results are applied. Let us first take up selection purpose and see the importance of psychological tests here.

3.4.1 Selection

It is concerned with determining what kind of person is suitable for a particular job; the emphasis is on the job itself and to select from among many applicants the ones who will succeed on that job. The test scores obtained by the individual candidate clearly gives the suitability of the person for the concerned job.

3.4.2 Placement

Here the emphasis is on the individual. The problem is to find the right kind of job for a particular person. This process is generally aided by a vocational or guidance counsellor who attempts to diagnose an individual's capabilities to suggest the work in which he or she is most likely to accomplish success.

3.5 ESTABLISHING AN ASSESSMENT OR TESTING PROCEDURE FOR INDUSTRIAL / ORGANISATIONAL SETTING

The fundamental steps in setting up a testing procedure are basically similar as those necessary for any kind of selection procedure for the requirement of an industry or organisation. The primary step is to understand the nature or characteristics of the job for which psychological testing is to be used as a selection device. When job and worker analyses have been performed, the appropriate test or set of tests to assess the behaviours and abilities required for success on the job must be very carefully chosen or developed. This is a critical point.

No matter how exhaustively a job has been carefully analysed, if a poor test is subsequently utilised, the selection procedure is turned into a futile one. Hence, only properly trained and qualified psychologists who are well conversant in selection issues can set up the needed worthwhile selection procedure, especially ones which involve the use of psychological tests.

Now, the problem is, where do psychologists find suitable psychological tests. They can either use tests already available in the market or can develop new tests specially serving for the needs of the concerned job and the organisation, as well.

During looking for a published test(s) to use, the psychologists know precisely for what tests to look for and where to get the same from. The best or efficient tests provide information on reliability and validity and make test norms available for public evaluation. Again, there are significant sources of information on the nature and statistical characteristics of psychological tests.

The major source of information is the comprehensive and periodically revised *Mental Measurements Yearbook*. This efficient handbook contains critical reviews and evaluations of over 1500 tests (Mitchell, 1985). In India we have "Survey of Psychological Tests" brought out by the Indian Council of Social Science Research.

A leading sets of journal in the field, *Personnel Psychology*, *Journal of Applied Psychology*, *Applied Psychology – An International Review*, also publish articles containing information on the reliability and validity of tests available for use in personnel selection.

Over and above, *Psychological Abstracts* publishes information on psychological literatures involving reports of validity studies conducted on various tests. Apart from these, in 1988, the *Test Validity Yearbook Organisational* began publication, focusing on criterion-related validity studies.

Efficient psychologists possess expertise in regard to how to evaluate the information obtained and, thus, can learn much about the relevant tests being considered for selection purposes. An effective choice among tests can only be made on the basis of comprehensive knowledge often pertinent materials.

A host of important factors should be taken into serious account while taking decision as to whether to develop a new test or to use one available in the market. In this regard, certainly *cost* involvement is primarily an important consideration. It is relatively less expensive to purchase an available test than to develop a new one, especially when a small number of workers are to be selected.

In addition, *time* is also an important factor. The organisation / industry may require workers as quickly as possible and may express their unwillingness or inability to wait for a new and useful test to be developed. In fact, a large scale testing procedure may require couple of months' investigation before the test can be used for selection purpose, but an already published test can be used readily, assuring it serves efficiently the specific needs of the job in question.

However, there are certain situations in which existing tests are not sufficient and effective for the same. For example, if the job is entirely a novel one, it may require new skills such as those needed to operate sophisticated and complex equipment. It is unlikely that an existing test will be able to measure the abilities needed for success in a new kind of work. Herein lies the necessity for developing a new test.

When an organisation decides to develop its own test for a particular job, the personnel psychologist must write or compile a list of suitable items or questions (centering around several logically or intellectually defined enquiry areas or constructs constituting the operational definition of the concerned attribute). Next, the psychologist proceeds to examine and evaluate critically each item in the test, conducting an *item analysis* to determine how effectively each item *discriminates* between those who scored high on the total test and those who scored low.

In essence this involves correlating a person's response on each item with the response on the test as a whole. Such *discrimination index* may be determined by applying a suitable psychometric technique – quite a number of such standard techniques are available.

The *level of difficulty* of each item / question must also be determined. If the majority of the test items are too easy, most people will obtain high scores. As a result, the obtain narrow range of scores makes it difficult to determine efficiently and effectively between those who are very high on the characteristic or ability being tested and those who are moderately high.

A test on which most of the items are too difficult presents the reverse problem. It would be difficult to distinguish between those who possess extremely low ability and those who possess only moderately low ability. Hence, those items which are extremely difficult (virtually impossible to answer by the individuals of the target group) and those which are very easy (almost all individuals of the group could answer the items correctly) are desirably to be excluded from the concerned test.

In addition, reliability and validity of the test should also be assessed by applying the suitable techniques, as mentioned earlier, under 3.2.3 and 3.2.4.

Once validity and reliability of a test have been found to be satisfactory, the problem of setting a cutoff score (the score below which an applicant will not be hired) must be resolved. There are a number of psychometric techniques for establishing cutoff scores, most of which involve job analysis and criterion-related validity studies involving a minimally acceptable level of job performance. In setting cutoff scores, it has been observed that better workers are not those who score much high.

As for example, quite intelligent people often do not work well in routine assembly line jobs. It may be necessary, therefore, that both minimum and maximum cutoff scores be determined for an intelligence test that is a part of this kind of organisation's selection procedure. Hence, the applicants must be intelligent enough to be able to learn the job but not so intelligent that they will be bored with it.

Hence, in the perspective of such a cluster of salient aspects of testing procedure the need for well-trained test administrators is the essential prerequisite. The task requires considerable technical skill coupled with sympathetic understanding of, and interest in, those being tested.

3.6 CLASSIFICATION OF PSYCHOLOGICAL TESTS

Psychological tests can be classified by the ways in which (1) they are constructed, scored and administered and (2) in terms of behaviour or the characteristics they are designed to assess. Let us deal with these one by one.

3.6.1 Test Administration Perspective

Many tests are designed in such a way that they can be administered to a large number of people at the same time. These *group tests* are advantageous in a situation that requires the testing of many people, i.e., large-scale testing programme in industry, the only limitation of which is the size of the testing facility.

Individual tests, administered to one person at a time, are costlier and therefore, are used to a lesser degree in Industry than are group tests. These tests are used more frequently for vocational guidance and counselling as well as for clinical and diagnostic work with emotionally disturbed persons.

3.6.2 Computer Assisted Testing

Designed for large scale group testing or computer assisted testing is nevertheless an individual testing situation in which the person taking the test interacts with a computer. The questions appear one at a time on the computer screen and the job applicant presses a key corresponding to an answer selected. Computerised test is more efficient and less costly, and it provides standardised reports. Computers also eliminate all personal biases and errors of interpretation and are unaffected by feelings of fatigue, boredom or burnout.

3.6.3 Speed and Power Tests

A speed test has a fixed time limit at which point everyone taking the test must stop. A power test has no time limit and the subjects are allowed as much time as they feel they need to finish the test. By and large, a speed test consists of a set of items having more or less uniform level of difficulty while a power test contains more

difficult items and the set of its constituent items are arranged in an increasing order of difficulty.

3.6.4 Paper and Pencil Tests

Paper-and-Pencil tests are the type with which we are most familiar. The items or the questions are in printed form and the answers (generally in several alternative forms) are pointed on a separate answer sheet. Majority of the standard group tests of intelligence, interest, personality are paper-and-pencil tests.

Again some behaviours or characteristics do not lend themselves to evaluation by paper-and-pencil forms. As for example, mechanical ability, can be assessed better by providing the applicants to perform a series of mechanical operations than by answering questions about the nature of those operations.

Other examples are the assessment of typing ability by observing the typist in operation. Similarly, the evaluation of more complex skills, expensive equipment may be required. Such tests are Performance tests that may require mostly in individual testing situation.

3.6.5 Objective and Subjective Scoring

Majority of the psychological tests used in assessing persons performances in industrial/organisational settings are *objectively scored* for evaluation.

Subjectivity in test scoring as interviewing allows personal prejudices and attitudes to enter into the assessment situation which can lead to distortion of the evaluation.

3.6.6 Characteristics Perspective

Psychological tests may, however, be most usefully classified in terms of characteristics or behaviours they are designed to assess. The most basic types are tests of cognitive or mental ability, aptitude, motor ability, interest and personality.

3.7 COGNITIVE ABILITY

Cognitive ability tests measure a person's skills needed for a new job or to cope with the demands of a training course. These tests are not the same thing as tests of achievement or tests of attainment. Tests of attainment assess specifically what people have learnt, e.g., typing skills.

Several tests of cognitive ability (generally known as intelligence tests) are used frequently in employee selection. An important survey on industrial selection (Cooper & Robertson, 1988) found that about 80% of cognitive ability tests are used effectively for the said purpose. Group intelligence tests, the kind used most often are primarily a rough screening device. The tests are short, take little time to complete, and can be administered to large groups. These can be rapidly and easily scored by even a clerical staff or a machine.

Personal psychologists have found that tests of cognitive ability are highly valid for predicting success in training programmes as well as actual job performance (Guion & Gibson, 1988). Indeed such tests are the "most valid way known of identifying the employees or trainees who will be the most productive workers" (Hawk, 1986).

3.7.1 The Otis Self-administering Tests of Mental Ability

This is a frequently used selection test, which has proven to be useful for screening applicants for a wide variety of jobs, including office clerks, assembly-line workers,

and lower level supervisors, that is, jobs not requiring an extremely high level of intelligence. The test is group administered and takes little time to complete. It is less useful for professional or high-level supervisory positions because it does not discriminate well at the upper ranges of intelligence.

3.7.2 The Wonderlic Personnel Test

This is a 50-item version of one of the Otis series of tests, is particularly popular in industrial selection because it takes a mere 12 minutes to complete, making it an economical screening device. This group test includes verbal, numerical, and spatial content items and has been useful in predicting success in certain lower level clerical jobs.

3.7.3 The Wechsler Adult Intelligence Scale-Revised (WAIS-R)

This is a lengthy, individually administered test that is used in industry primarily for the selection of senior management personnel. The administration, scoring and interpretation of the WAIS require much training and experience on the part of the examiner. The test involves 11 subtests in two sections, verbal and performance. The verbal subtests are Information, Comprehension, Arithmetic, Similarities, Digit Span, and Vocabulary; the performance subtests are Digit Symbol, Picture Completion, Block Design, Picture Arrangement, and Object Assembly. Two separate measures of intelligence, therefore, can be obtained as well as a full-scale IQ score by combining the verbal and performance measures. Computer-assisted interpretation is available.

3.7.4 The Raven's Progressive Matrices (RPM)

This is a non-verbal intelligence test requiring interactive reasoning about abstract geometric patterns. This was first published in 1938 and later revised several times and is designed to cover a very wide range of mental ability and to be useable with subjects irrespective of age, sex, nationality, or education.

The respondent is provided with 60 abstract geometric patterns with a missing part. In each case the subject must select from several alternatives the one that fits in a missing part of the pattern. Some psychologists believe that it provides the purest available measure of general intelligence, uncontaminated by cultural and educational influences. English Psychologist John C. Raven (1902-1970) developed this test in 1938. The R.P.M. is available in three forms, differing in level of difficulty. The Standard Progressive Matrices (SPM-1996 Edition) is the form suitable for average individuals between the ages 6 and 80 years (Fig. page 43).

An easier form, the Coloured Progressive Matrices (CPM-1990 Edition), is available for younger children and for special groups who cannot be adequately tests with the SPM for various reasons.

A third form, the Advanced Progressive Matrices (APM-1994 Edition) was developed for above-average adolescents and adults.

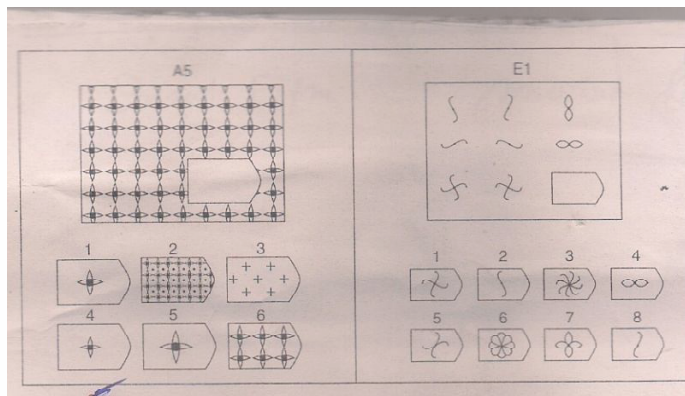


Fig. 4.: Typical Items from the Standard Progressive Matrices (SPM). One easy item (A5) and one difficult item (E1) are shown (Source: The Psychological Corporation)

3.8 APTITUDE TESTS

Aptitude tests must be designed for many jobs especially to assess the skills required by that job, but there are published tests that measure general aptitudes for mechanical and clerical skills.

A couple of tests measure *clerical aptitude* having potentials in the prediction of success for clerical workers. These tests are concerned mainly with speed and accuracy of perception.

The *Minnesota Clerical Test* is a group tests consisting of two parts, number comparison and name comparison. The test is a speed test to determine the individual's accuracy when working in a limited time period. The test instructions urge the examinees to work as fast as they can without errors. The number comparison consists of 200 pairs of numbers, each of which contains 3 to 12 digits. The name comparison section is similar but uses proper names instead of numbers. These tasks are analogous to the work required in clerical jobs.

The *General Clerical Test* is a group speed test published in two booklets. *A—Clerical, Numerical and B—Verbal*.

Booklet A contains items on checking, alphabetizing, numerical computation, error location, and arithmetic reasoning and is suitable for testing job applicants for accounting or payroll clerk positions.

Booklet B contains items on spelling, reading, comprehension, vocabulary, and grammar and is suitable for applicants for secretarial jobs.

Tests to assess *mechanical aptitude* emphasise on the abilities of mechanical comprehension and spatial visualisation.

The *Revised Minnesota Paper Form Board Test* is a measure of spatial relations or visualisation and the manipulation of objects in space, necessary abilities for occupations such as drafting. The applicant is presented with drawings of figures cut into two or more segments and must be able to picture how the total figure would appear if the pieces were put together. Sample items from this test are shown in Figure below.

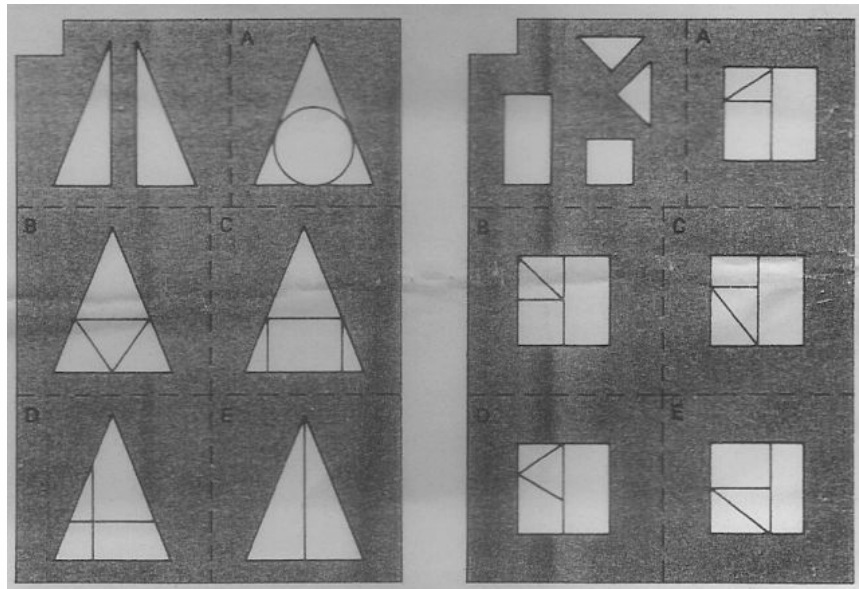


Fig. 5: Sample items from Revised Minnesota Paper Form Board Test. The subject must pick the figure (from A to E) that shows how the parts will look when assembled (Source : The Psychological Corporation)

Investigation conducted with this test has exhibited some degree of validity in predicting successful performance in mechanical work, engineering shop-work, and power sewing machine operation as well as classroom performance of art and dentistry students.

Another widely used test of mechanical aptitude, in both the military and private industry, is the *Bennett Mechanical Comprehension Test*. This test employs pictures with questions about the mechanical principles involved in them and provides norms for various levels of training and background. Sample items are shown in Figure below. Both written and tape-recorded instructions are available, the latter for use with applicants who have difficulty reading. Both forms are available in English.

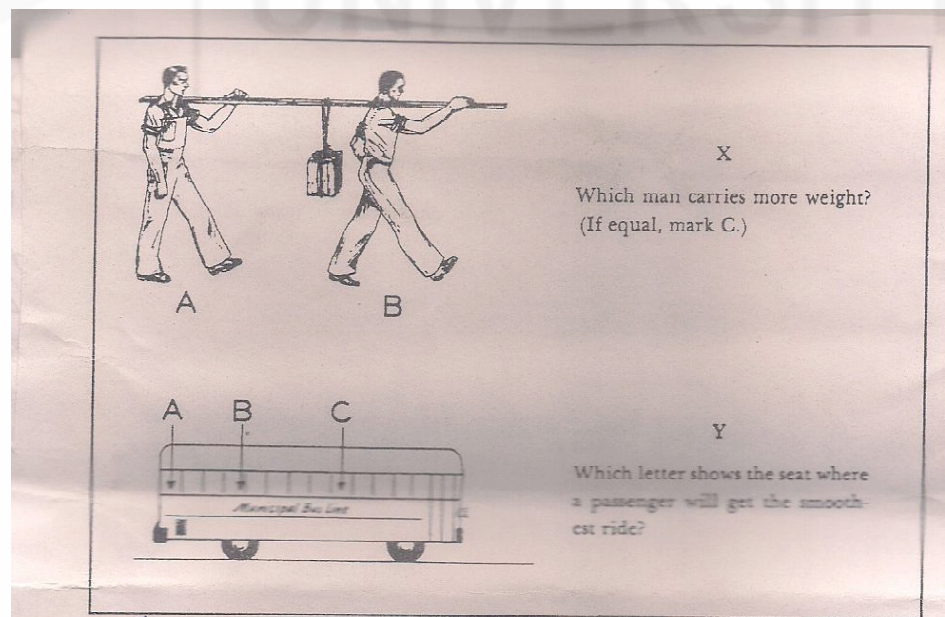


Fig. 6: Sample Items from the Bennett Mechanical Comprehension Test. Answers are recorded on a separate answer sheet (Source: The Psychological Corporation)

The *Minnesota Rate of Manipulation Test* has two parts. The examinee's task in the first part is to place 60 cylindrical blocks in 60 wells in a board. The second task is to turn all the blocks over. The score is the amount of time taken to complete each task.

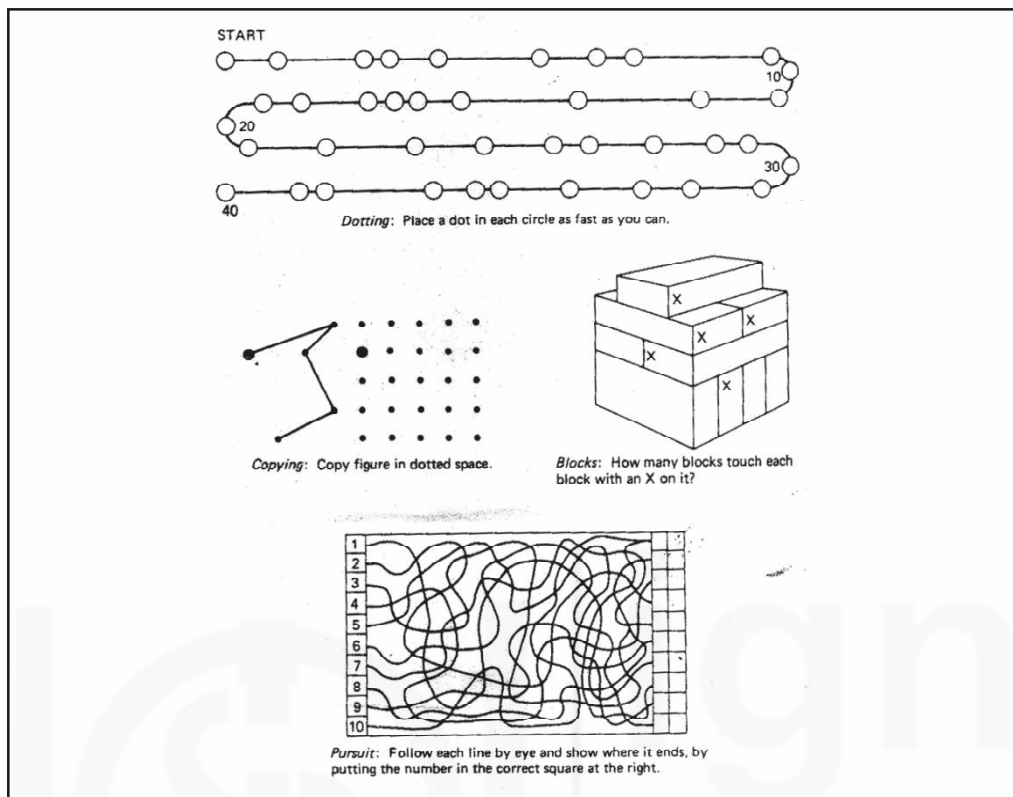


Fig. 7: Sample items from MacQuarrie Test for Mechanical Ability by T.W. MacQuarrie (Source The Psychological Corporation)

There are other tests of motor ability that measure coordination. The most common ones utilise the pursuit rotor, a test in which the testee uses a stylus to follow a dot on a revolving disk.

One variation of this procedure is the *Purdue Hand Precision Test*. As an upper disk with a hole revolves, the person being tested must touch target holes in a plate underneath the disk by using a stylus. The score is kept electronically as the stylus activates a counter.

Again, in certain specific occasions, special devices are developed to assess motor skills sophisticated machines with the help of which the individual performs motor tasks of highly complex jobs as a result to visual signals. However, such tools are relatively more costly than the usual motor ability tests.

3.9 MOTOR ABILITY TESTS

A cluster of jobs in industrial and military organisations need a sufficient degree of motor skill involving muscular coordination, finger dexterity or a precise eye-hand coordination.

The *MacQuarrie Test for Mechanical Ability* is one of the few tests of motor ability in paper-and-pencil form. The seven subtests include:

- *Tracing*—a line is drawn through very small openings in a number of vertical lines.

- *Tapping*—dots are made on paper as quickly as possible.
- *Dotting*—dots are made in circles as quickly as possible.
- *Copying*—simple designs are copied.
- *Location*—specific points must be located in a smaller size version of a stimulus figure.
- *Blocks*—the number of blocks in a drawing must be determined.
- *Pursuit*—the visual tracing of assorted lines in a maze.

A few of these tasks are pictured in Figure below.

The *Purdue Pegboard* is a performance test that simulates conditions on an assembly line and measures finger dexterity as well as gross movement skills of fingers, hands, and arms. The task is to place pins in a series of holes as rapidly as possible, first with one hand, then the other, then both. Each of these tasks takes 30 seconds.

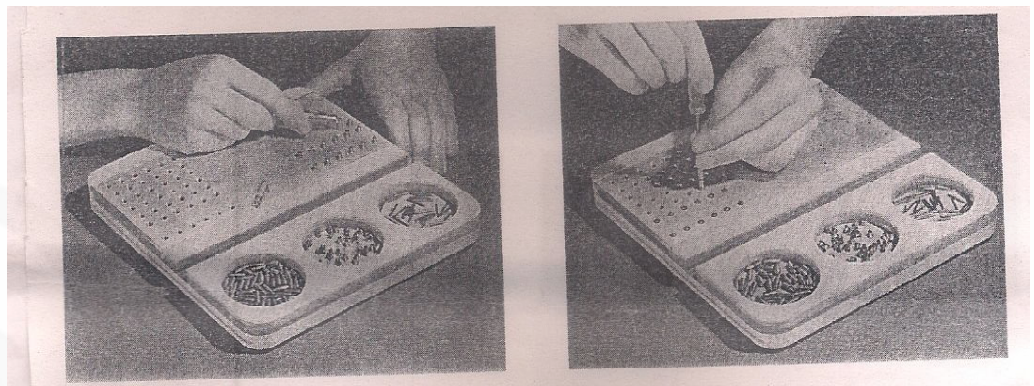


Fig. 8: Crawford Small Parts Dexterity Test

In addition, the *Purdue Pegboard* incorporates a 1-minute test involving the simultaneous use of both hands to assemble pins, collars, and washers in each hole.

The *O'Connor Finger Dexterity Test* and *O'Connor Tweezer Dexterity Test* assess how quickly an individual can insert pins into small holes, both by hand and by the use of tweezers. This is a standard measure of finger dexterity, and the test has proven to be useful in predicting success among sewing machine operator trainees, dentistry students, and a variety of other tasks requiring precise manipulative skills (Schultz & Schultz, 1990).

Several tests have been devised to measure speed, coordination, and other *psychomotor skills*. Majority are concerned with manual dexterity, but a few involve leg or foot movements that may be required in performing specific jobs. Some measure a combination of motor and perceptual, spatial, or mechanical aptitudes. The principal application of these tests has been in the selection of industrial and military personnel. Psychomotor tests are characteristically apparatus tests, although several paper-and-pencil adaptations have been designed for group administration.

An example of a published instrument requiring several simple manipulative skills is the Crawford Small Parts Dexterity Test (Crawford & Crawford, 1981), shown in Figure 8. In Part I of this test, the examinee uses tweezers to insert pins into close-fitting holes and then places a small collar over each pin. In Part II, small screws are placed in threaded holes and screwed down with a screwdriver. The score is the time required to complete each part (Anastasi, 1996).

3.10 PERSONALITY TESTS

Assessment of personality characteristics have been found to correlate with proficiency in many jobs. In addition, personality has had immense significance not only in job performance, but also in job satisfaction (Paunonen & Jackson, 1987).

There are two broad approaches to the assessment of personality characteristics. Self-report inventories and projective techniques.

3.10.1 Self Report Inventories

The self-report inventory involves various sets of items concerning specific circumstances, symptoms or feelings. Individuals are requested to point out how explicitly each item describes themselves or to what extent they agree with each of them.

However, self-report inventories are especially subject to malingering or faking. Most items on such inventories have one answer that may be identifiable as socially more desirable or acceptable than the others. On such test-items, the respondent may be motivated to “fake good” or select answers that create a favourable impression, as when applying for a job or seeking admission to an educational institution. Under other circumstances, he may be motivated to ‘fake bad’ thus making himself or herself appear more psychologically disturbed than he or she is.

This may occur, for example, in the testing of persons on trial for a criminal offence. Several techniques have been adopted in the effort to meet the problem of faking of which the introduction of verification keys that detect faking is most useful.

Various well-known self-report inventories are available viz., Guilford-Zimmerman Temperament Survey, Minnesota Multiphasic Personality Inventory, Revised NEO Personality Inventory, etc. The Guildford-Zimmerman Temperament Survey is one of the more widely used paper-and-pencil personality inventories.

The items in the form of statements, are categorized into ten component independent personality traits: General activity, Restraint, Ascendance, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, Personal relations and Masculinity. The respondents check the statements by ‘yes’, ‘?’ and ‘no’ responses. In order to check against deliberate faking or carelessness in responding, the test has three falsification scales based on the answers to selected test items.

The *Minnesota Multiphasic Personality Inventory (MMPI)*, probably the best known and most significant of all the self-report inventories, consisting of 566 (originally 504, later 550) statements, including 16 that are repeated, to be classified by the respondent as ‘true’, ‘false’ or ‘cannot say’. This inventory provides 10 component scales (clinical) : Hypochon-driasis (Hs), Depression (D), Conversion Hysteria (Hy), Psychopathic Deviate (Pd), Masculinity-Femininity (Mf), Paranoia (Pa), Psychoasthenia (Pt), Schizophrenia (Sc), Hypomania (Ma) and Social Introversion (Si). In addition there are four validity (test-taking attitude) scales : a score for the number of questions left unanswered (?); a Lie Scale (L) containing items describing socially desirable but unlikely behaviour, such as ‘I always tell the truth’ (True); an Infrequency Scale (F) of items answered in the keyed direction by 10 percent or less of normal people, such as ‘I see things, animals or people around me that others do not see’ (True); and a Correction factor (K) reflecting defensiveness in admitting to problems, containing items such as ‘At times I feel like swearing’ (False).

Numerous other scales have been derived from the MMPI test items. The MMPI was developed and first published in 1942 by US clinical psychologist S.R. Hathaway (1903-1984) and the US neuropsychiatrist J.C. McKinley (1891-1950); a revised version, called MMPI-2 was issued in 1989. Typical items are as follows :

- I cannot keep my mind on one thing.
- I used to keep a diary.
- I usually feel that life is worthwhile.
- Some people are so bossy that I feel like doing the opposite of what they request even though I know they are right.

The *Revised NEO Personality Inventory (NEO PI-R)* is a concise measure of the five major dimensions, or domains, of personality and some of the more important traits or facets that define each domain. The NEO PI-R allows a comprehensive assessment of personality. There are two versions of the NEO PI-R : Form S for self-reports and Form R for observer ratings where each form consists of 240 items answerable along a 5-point scale.

The NEO PI-R supplants the NEO Personality Inventory (NEO-PI; Costa & McCrae, 1985). When it appeared in 1985, the NEO-PI had well-research scales to measure the facets of Neuroticism (N), Extraversion (E), and Openness (O), but only global scales to measure the factors of Agreeableness (A) and Conscientiousness (C).

In 1889, several enhancements of the NEO-PI were offered to the user but the inventory itself remained unchanged. In NEO PI-R the three validity check items were also presented in the answer sheet. Apart from the utility in diagnosis and counseling the NEO PI-R is useful in industrial and organisational settings for various purposes (Costs & McCrae, 1992).

Many other self-report inventories are also available, most of them assess a variety of traits, and there are also psychological tests that can assess specific personality traits such as introversion-extroversion, sociability, emotional maturity, emotional security, etc.

In connection with the selection at the executive or managerial level self-report inventories are usually used in organisational or industrial settings.

3.11 PROJECTIVE TESTS

Although projective tests were developed primarily for their uses in clinical psychology with emotionally disturbed individuals yet their effective role to assess candidate for high-level executive positions are also undesirable.

The most well-known projective technique is the Rorschach inkblot test, which was first published by a Swiss psychiatrist—Hermann Rorschach in 1921. The test consists of 10 standardised inkblots – 5 of which are in colour and the rest 5 one in shaded of black and gray. As the examinee is shown each inkblot, he is asked to tell what he sees – what the blot could represent. Besides keeping a verbatim record of the responses to each card, the examiner notes time of responses, position or positions in which cards are held, spontaneous remarks, emotional expressions, and other incidental behaviour of the examinee during test sessions.

The process of interpreting the responses is complicated and is depending on whether the examinees reported seeing movement, human figures, inanimate or animate objects, and so on. The scoring is relatively subjective and depends on the training, skill and insight of the examiner. Of late, a few standardised procedures for administering, scoring and interpreting the results have been developed (Exner, 1986).

In contrast to inkblot techniques, the Thematic Apperception Test (TAT) presents more highly structured stimuli and requires more complex and meaningfully organised verbal responses. This test was developed by Henry Murray and his staff at the Harvard Psychological Clinic (Murray *et al.*, 1938). The TAT materials consist of 19 cards containing vague pictures in black and white and one blank card.

The examinee is asked to make up a story to fit each picture, telling what led up to the event shown in the picture, describing what is happening at the moment and what the characteristics are feeling and thinking and giving the outcome. The stories are analysed in a subjective and unstandardised process. The TAT is also used primarily in clinical psychology but its uses in industrial selection purposes are also important.

Besides above there are other notable projective tests, viz., Rosenzweig Picture-Frustration Study, Sentence Completion Test, etc.

3.12 ASSESSMENT OF INTEREST

In industrial personnel selection, although interest inventories do not play a significant role (rather these tests are of immense significance in vocational guidance and career counseling) many organisations do include measures of interest as a part of their overall assessment programme. It is indeed a fact that in spite of possessing an intense degree of interest in a particular occupation it is no guarantee that an individual's level of ability is quite compatible with the same. However, if the assessment provides that a person having no interest in a job, his or her successful performance in it is limited.

Two widely used interest inventories are the *Strong—Campbell Interest Inventory (SCII)* and the *Kuder Occupational Interest Survey*.

The SCII is a group-administered test composed of 325 questions that deal with occupations, school subjects, activities, leisure pursuits, and social contacts, some of which are to be ranked in order of preference and others rated as like, dislike, or indifferent. The SCII groups occupations in six areas: realistic, investigative, artistic, social, enterprising, and conventional. Scoring is done by computer.

The *Kuder Occupational Interest Survey* consists of a large number of items arranged in groups of three. Within each triad, examinees must indicate which activity they most prefer and which they least prefer. They are not allowed to skip any group if they do not like any of the alternatives or to check more than one as the most preferred activity. It can be scored for 126 occupations (Anastasi, 1976).

3.13 ADVANTAGES AND LIMITATIONS OF PSYCHOLOGICAL TESTING

The main advantage of using psychological test is not only an assessment technique in selection process but also some of its special types that can improve the said selection process. In addition, psychological tests also provide a good amount of valid information about an individual in a short period of time.

In terms of predictive value, tests of cognitive ability are valid predictors of performance on the job and in training programme for a variety of jobs in many settings.

3.13.1 Problems and Limitations of Psychological Testing

The problems of psychological testing include: (i) uncritical use, (ii) unfair rejection of applicants, (iii) faking of test resources, (iv) conformity and (v) poor quality of test administration. In recent years, people become more critical of tests and there are serious ethical issues involved in their use as selection devices, including invasion of privacy and the confidentiality of test questions and answers (Schultz & Schultz, 1990).

3.14 LET US SUM UP

Psychological assessment is the appropriate understanding of the psychological attributes or characteristics of an individual or group of individuals using standardised techniques of measurement having sufficient characteristics of reliability and validity. There are a variety of assessment techniques. They range from unstructured interview to structured psychological test. The main goal of these techniques is to predict job performance.

Generally, assessment techniques or psychological tests serve two major purposes in industrial and organisational settings:

- 1) *Selection:* Selection is concerned with determining what kind of person is suitable for a particular job.
- 2) *Placement:* Placement is concerned with determining what kind of job is suitable for a particular person.

Several steps are necessary to conduct a testing programme:

- 1) performing a job and worker analysis,
- 2) seeking or developing an appropriate test,
- 3) conducting item analysis of each question on the test,
- 4) determining the level of difficulty of each question,
- 5) assessing reliability and validity of the test, and
- 6) setting-up the cut off scores.

There may be variety of psychological tests in which they are constructed and administered or in terms of behaviour they measure, viz., individual or group tests, speed or power tests, paper-and-pencil tests or performance tests, computer assisted tests are examples of the former, and cognitive ability, motor ability, aptitude, interest and personality tests are the examples of the latter. Personality characteristics are measured by self-report inventories and projective techniques. Psychological tests are by far the best selection devices. There are however certain limitation of psychological testing, viz., uncritical use, unfair rejection of applicants, faking of test responses, conformity and poor test administration.

3.15 UNIT END QUESTIONS

- 1) Discuss interview as an assessment technique

- 2) What are the characteristic features of psychological tests?
- 3) Discuss the purposes of psychological tests
- 4) What are the requirements to be considered to establish testing procedure in industries?
- 5) How are psychological tests classified?
- 6) Discuss the various dimensions that are assessed by psychological tests.

3.16 GLOSSARY

Psychological test	: Psychological test is an objective and standardised measure of a sample of behaviour.
Standardisation	: Standardisation implies objectivity, reliability and validity of a measuring device or psychological test.
Selection	: It is concerned with what kind of person is suitable for a particular job.
Placement	: It is concerned with what kind of job is suitable for a particular person.
Projective technique	: This is an approach to personality testing where a set of ambiguous stimulus such as ink blots are presented to an individual who will give some structure and meaning to this stimulus and thereby he will project his personal thoughts, desires, wishes and feelings.

3.17 SUGGESTED READINGS

Anastasi, Anne and Urbina, Susana (1997). *Psychological Testing*. Prentice Hall, NY

Freeman, Frank, S. (1953). *Theory and Practice of Psychological Testing*. London. Pitman.

UNIT 4 PERSONALITY TRAINING AND DEVELOPMENT, CRITERION DEVELOPMENT AND PERFORMANCE APPRAISAL

Structure

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Purpose of Training and Development
- 4.3 Factors that Influence Training and Development
 - 4.3.1 Training and Development
 - 4.3.2 Factors that Influence Training and Development
- 4.4 Training of the Staff
 - 4.4.1 Purpose of Employee Training and Development Process
 - 4.4.2 The Training Process
 - 4.4.3 Reasons for No Training
 - 4.4.4 Identifying Training Needs
 - 4.4.5 Selection of Trainees
 - 4.4.6 Training Goals
 - 4.4.7 Training Methods
 - 4.4.8 Trainers
 - 4.4.9 Evaluation of Training
- 4.5 Performance Appraisal
 - 4.5.1 Objectives of Performance Appraisal
 - 4.5.2 Main Components Criterion of Performance Appraisal System
- 4.6 Let Us Sum Up
- 4.7 Unit End Questions
- 4.8 Glossary
- 4.9 Suggested Readings

4.0 INTRODUCTION

In this unit we will be dealing with training and development. First we will define and describe training and development and put forward some of the major factors that influence training and development. In regard to training the employees or the staff in an organisation, the purpose has to be made clear, and the very training process has to be taken up. The unit will describe how to assess the training needs of the staff, how to select the trainees and what type of trainers should an organisation have. The unit also describes the training goals, methods and evaluation of the training programme after the training is complete. Going in line with this is the performance appraisal which can indicate where the training is needed and to which types of employees and in which sections of the organisation. The objectives of the performance appraisal will be presented.

4.1 OBJECTIVES

After reading this unit, you will be able to:

- Define and describe training and development;
- Differentiate between training and development;
- Elucidate the purpose of training and development;
- Describe the various requisites of training the staff;
- Explain the training process;
- Present the manner in which training needs could be identified;
- Analyse the qualities required of a trainer;
- Define performance appraisal; and
- Explain the objectives of the performance appraisal from training point of view.

4.2 PURPOSES OF TRAINING AND DEVELOPMENT

There are large number of reasons for training and development which seem to be important both in organisational and individual perspective. These reasons include the need for

- i) People to stay employable throughout a lifetime during which jobs and careers may change,
- ii) People's willingness to continue learning and developing which is becoming an essential part of continuous employability,
- iii) Employees to learn methods and techniques required to do specific tasks,
- iv) People who are new to a job, people having to use new equipment, processes and procedures,
- v) The need for the organisation to develop future successors,
- vi) Minimising the costs of recruiting externally and maximizing the benefits of keeping in-house knowledge and experience in the business,
- vii) Increasing resources from existing staff,
- viii) Increasing the capacity of people in the organisation to be skilled in more than one area,
- ix) Motivating, attracting and retaining key staff,
- x) Fragmenting of the workforce (e.g., with the use of outsourcing and contract staff) continues, and as fewer people join the job market each year.

Training and development thus generally serve (i) to ensure that techniques and skills meet current needs and (ii) to ensure that techniques and skills are prepared to meet future needs.

4.3 FACTORS THAT INFLUENCE TRAINING AND DEVELOPMENT

The influence of human personality upon the functional efficiency of an organisation and its personnel has been widely recognised. The personality can also be modified to certain extent. Accordingly in the recent years there have been a variety of efforts by professionals in various fields to design courses that will help develop positive trends in personality. The objective of such training is to bring about personality development with regard to the different behavioural dimensions that have far reaching significance in the direction of organisational effectiveness.

4.3.1 Training and Development

Training encompasses any activity in which an individual learns something new. Development on the other hand encompasses any activity in which learning is put to practice in such a way as to develop skill and expertise. This is all the more true for newly hired employees to participate in some type of training before they can be finally placed on a new job. Training is also required to ensure that the employees' productive efficiency increases and in turn contributes to the enhancement of organisational goals.

At the same time it must be remembered that Training is not restricted to new recruits only, rather it should take place at all levels of employment from unskilled youngsters to seasoned corporate vice presidents, from the very first day on a job to the final months before retirement.

Training is also not limited to a specific job skills. Most training activity is directed toward changing attitudes, motivation and interpersonal skills. Thus, training is one of the most important functions that directly contributes to the development of human resources.

Recent surveys on the investments made by Indian organisations on training showed that many organisations do not even spend 0.1 percent of their budget on training. Several other organisations do not even have a training department (Pareek & Rao, 2006). Hence, in order to develop effective and efficient type of human resources, the organisation should create conditions in which people acquire new knowledge and skills and develop healthy patterns of behaviour and styles. One way to achieve this is organisational training.

Because of continuous development of science and technology at a fast rate training is indispensable. With the advances in technology, systems and practices get outdated very quickly including technical, managerial and behavioural aspects. Obviously, organisations which do not develop procedures to catch up with and use the improved technology soon become an ineffective one.

In this context however, developing individuals in the organisation can effectively promote the effectiveness of the organisations. In order to make training and development meaningful and purposeful, such development should be monitored skillfully.

In the absence of proper monitoring, development is likely to increase the frustration of employees especially when they have developed their skills and enhanced their expectations but not given opportunities for the meaningful application of such skills. A good training programme not only would help substantially in monitoring the

directions in which employees should develop in the maximum interest of the organisation, but also ensure employees' development in the directions congruent with their career plans.

4.3.2 Factors that Influence Training and Development

A couple of factors that influence the training and development offered within an organisation have been mentioned by Whiddett & Hollyforde (2004) which are (i) Organisational strategic plans and (ii) Organisational policies.

While Organisational strategic plans refer to specifically any changes from the current levels or types of business, Organisational policies refer to incorporating the provision of events to identify needs (e.g., assessment-for-development centres) and/or a policy of encouraging learning *per se*. Career opportunities available within the function or within the organisation must be taken into account.

Before a training programme is undertaken, the following aspects have to be considered by the organisation:

- i) **Future needs:** These refer to the need to develop staff towards other roles (succession) or the need to develop staff to meet changes in the business (e.g., the introduction of new technology or an attempt to change culture).
- ii) **Skills shortage:** This refers to the skills of the current staff which do not meet the current requirements.
- iii) **The need, or desire, to meet external requirements:** This is in regard to the recognition of a commitment to training, to comply with legal and professional regulations.

By and large the objectives and purpose of training is to ensure that their staff is given opportunities to train and develop.

One of the significant sources of information on training needs is the periodic *performance appraisal* that most workers receive. These can point up an employee's weaknesses and strengths and often lead to a recommendation for training to correct a specific deficiency.

4.4 TRAINING OF THE STAFF

The quality of employees and their development through training and education are major factors in determining long-term profitability of any business. If one hires and keeps good employees, it is also a good policy to invest in the development of their skills, so they can increase their productivity.

Training though often is considered for new employees only, this idea is actually a mistake because ongoing training for current employees helps them adjust to rapidly changing job requirements.

4.4.1 Purpose of Employee Training and Development Process

Reasons for emphasising the growth and development of personnel include:

- Creating a pool of readily available and adequate replacements for personnel who may leave or move up in the organisation.

- Enhancing the organisation's ability to adopt and use advances in technology because of a sufficiently knowledgeable staff.
- Building a more efficient, effective and highly motivated team, which enhances the organisation / company's competitive position and improves employee morale.
- Ensuring adequate human resources for expansion into new programs.

Research has shown specific benefits that an organisation receives from training and developing its workers. These are for instance,

- Increased productivity.
- Reduced employee turnover.
- Increased efficiency resulting in financial gains.
- Decreased need for supervision.
- Employees frequently develop a greater sense of self-worth, dignity and well-being as they become more valuable to the firm and to society.
- Generally they will receive a greater share of the material gains that result from their increased productivity.
- These factors give them a sense of satisfaction through the achievement of personal and company goals.

4.4.2 The Training Process

The model below traces the steps necessary in the training process:

- Organisational Objectives
- Needs Assessment
- Assessment of the gap or lack of skill etc.
- Training Objectives
- Select the Trainees
- Select the Training Methods and Mode
- Choose a Means of Evaluating
- Administer Training
- Evaluate the Training.

The organisation should have a clearly defined strategy and set of objectives that direct and drive all the decisions made especially for training decisions. Firms that plan their training process are more successful than those that do not. Most business owners want to succeed, but do not engage in training designs that promise to improve their chances of success.

4.4.3 Reasons for No Training

The reasons for not engaging in training are:

Time factor: Time demands of the managers do not allow them to train employees.

Getting started: Most managers have not practiced training employees and the training for them the training process is unfamiliar.

Broad expertise: Managers tend to have broad expertise rather than the specialised skills needed for training and development activities.

Lack of trust and openness: Many managers prefer to keep information to themselves. By doing so they keep information from subordinates and others who could be useful in the training and development process.

Skepticism as to the value of the training: Some managers believe that the future cannot be predicted or controlled and hence their efforts are best centered on current activities i.e., making money today.

Despite the above, it must be remembered that a well-conceived training program can help the firm to succeed. A program structured with the company's strategy and objectives in mind has a high probability of improving productivity and other goals that are set in the training mission.

4.4.4 Identifying Training Needs

The question that arises is that how to identify training needs. Training needs can be assessed by analysing three major human resource areas, viz. (i) the organisation as a whole, (ii) the job characteristics and (iii) the needs of the individuals.

The organisation has to begin assessing the current status of the company how it does what it does best and the abilities of its employees to do these tasks. This analysis will provide some benchmarks against which the effectiveness of a training program can be evaluated. The organisation should know where it wants to be in five years from its long-range strategic plan and in order to reach that target, what kind of training programme needs to be organised. Second, consider whether the organisation is financially committed to supporting the training efforts. If not, any attempt to develop a solid training program will fail.

Next, the organisation has to determine exactly where training is needed. It is foolish to implement a companywide training effort without concentrating resources where they are needed most. An internal audit will help point out areas that may benefit from training. Also, a skills inventory can help determine the skills possessed by the employees in general. This inventory will help the organisation determine what skills are available now and what skills are needed for future development.

Also, in today's market-driven economy, it would be ideal to ask the customers what they like about the organisation and its business and what areas they think should be improved. In summary, the analysis should focus on the total organisation and should provide information on (1) where training is needed and (2) where it will work within the organisation.

Once the organisation has determined where training is needed, it should concentrate on the content of the program. It must analyse the characteristics of the job based on its description, the written narrative of what the employee actually does, etc. Training based on job descriptions should go into detail about how the job is performed on a task-by-task basis. Actually doing the job will enable the job analyser to get a better feel for what is done.

Individual employees can be evaluated by comparing their current skill levels or performance to the organisation's performance standards or anticipated needs. Any discrepancies between actual and anticipated skill levels identifies a training need.

4.4.5 Selection of Trainees

Once the organisation has decided what training is necessary and where it is needed, the next decision is who should be trained? As is well known training an employee is expensive, especially when he or she leaves your firm for a better job. Therefore, it is important to carefully select who will be trained.

Training programs should be designed to consider the ability of the employee to learn the material and to use it effectively, and to make the most efficient use of resources possible. It is also important that employees be motivated by the training experience. Employee failure in the program is not only damaging to the employee but a waste of money as well. Selecting the right trainees is important to the success of the program.

4.4.6 Training Goals

The goals of the training program should relate directly to the needs determined by the assessment process outlined above. Course objectives should clearly state what behaviour or skill will be changed as a result of the training and should relate to the mission and strategic plan of the company. Goals should include milestones to help take the employee from where he or she is today to where the firm wants him or her in the future. Setting goals helps to evaluate the training program and also to motivate employees. Allowing employees to participate in setting goals increases the probability of success.

4.4.7 Training Methods

There are two broad types of training available (i) on-the-job training and (ii) off-the-job techniques. The organisation should determine which method to use.

On-the-job training is delivered to employees while they perform their regular jobs. In this way, they do not lose time while they are learning. After a plan is developed for what should be taught, employees should be informed of the details. A timetable should be established with periodic evaluations to inform employees about their progress. On-the-job techniques include orientations, job instruction training, apprenticeships, internships and assistantships, job rotation and coaching.

Off-the-job techniques include lectures, special study, films, television conferences or discussions, case studies, role playing, simulation, programmed instruction and laboratory training. Most of these techniques can be used by organisations, small or big

Orientations are for new employees. The first several days on the job are crucial in the success of new employees. This point is illustrated by the fact that 60 percent of all employees who quit do so in the first ten days. Orientation training should emphasise the following topics:

- The company's history and mission.
- The key members in the organisation.
- The key members in the department, and how the department helps fulfill the mission of the company.
- Personnel rules and regulations.

Some companies use verbal presentations while others have written presentations.

No matter what method is used, it is important that the newcomer understands his or her new place of employment.

Role playing and simulation are training techniques that attempt to bring realistic decision making situations to the trainee. Likely problems and alternative solutions are presented for discussion. The adage there is no better trainer than experience is exemplified with this type of training. This method is cost effective and is used in marketing and management training.

Audiovisual methods such as television, videotapes and films are the most effective means of providing real world conditions and situations in a short time. One advantage is that the presentation is the same no matter how many times it is played. The major flaw with the audiovisual method is that it does not allow for questions and interactions with the speaker, nor does it allow for changes in the presentation for different audiences. In the present day however we do have teleconferences in which questions could be asked of the presenter and there can be good and effective interaction between the presenter and audience.

Job rotation involves moving an employee through a series of jobs so that he or she can get a good feel for the tasks that are associated with different jobs. It is usually used in training for supervisory positions. The employee learns a little about everything. This is a good strategy for small businesses because of the many jobs an employee may be asked to do.

Apprenticeships develop employees who can do many different tasks. They usually involve several related groups of skills that allow the apprentice to practice a particular trade, and they take place over a long period of time in which the apprentice works for, and with, the senior skilled worker. Apprenticeships are especially appropriate for jobs requiring production skills.

Internships and assistantships are usually a combination of classroom and on-the-job training. They are often used to train prospective managers or marketing personnel.

Programmed learning, Computer-aided instruction and interactive video all have one thing in common. They allow the trainee to learn at his or her own pace. Also, they allow material already learned to be bypassed in favour of material with which a trainee is having difficulty. After the introductory period, the instructor need not be present, and the trainee can learn as his or her time allows.

Labouratory training is conducted for groups by skilled trainers. It usually is conducted at a neutral site and is used by upper and middle management trainees to develop a spirit of teamwork and an increased ability to deal with management and peers.

4.4.8 Trainers

For a small business, this question is crucial, that is who actually conducts the training depends on the type of training needed and who will be receiving it. On-the-job training is conducted mostly by supervisors whereas the off-the-job training is carried on by either in-house personnel or outside instructors.

In-house training is the daily responsibility of supervisors and employees. Supervisors are ultimately responsible for the productivity and, therefore, the training of their subordinates. These supervisors should be taught the techniques of good training.

They must be aware of the knowledge and skills necessary to make a productive employee. Trainers should be taught to establish goals and objectives for their training and to determine how these objectives can be used to influence the productivity of their departments. They also must be aware of how adults learn and how best to communicate with adults. There are several ways to select training personnel for off-the-job training programs. One can use in-house personnel to develop formal training programs to be delivered to employees off line from their normal work activities, during company meetings or individually at prearranged training sessions.

There are many outside training sources, including consultants, technical and vocational schools, continuing education programs, chambers of commerce and economic development groups. Selecting an outside source for training has advantages and disadvantages. The biggest advantage is that these organisations are well versed in training techniques, which is often not the case with in-house personnel.

The disadvantage of using outside training specialists is their limited knowledge of the company's product or service and customer needs. These trainers have a more general knowledge of customer satisfaction and needs.

Whoever is selected to conduct the training, either outside or in-house trainers, it is important that the company's goals and values be carefully explained.

An effective training program administrator should follow these steps:

- Define the organisational objectives.
- Determine the needs of the training program.
- Define training goals.
- Develop training methods.
- Decide whom to train.
- Decide who should do the training.
- Administer the training.
- Evaluate the training program.

Following these steps will help an administrator develop an effective training program to ensure that the firm keeps qualified employees who are productive, happy workers. This will contribute positively to the bottom line.

4.4.9 Evaluation of Training

Training should be evaluated several times during the process. The stages at which evaluation has to be done must be decided in advance. Employees should be evaluated by comparing their newly acquired skills with the skills defined by the goals of the training program. Any discrepancies should be noted and adjustments made to the training program to enable it to meet specified goals. Many training programs fall short of their expectations simply because the administrator failed to evaluate its progress until it was too late. Timely evaluation will prevent the training from straying from its goals.

It is very important to select a competent group of training staff who will conduct the formal teaching. It is highly desirable that those persons should be *knowledgeable in the subject matter*, having *effective amount communicating potentials* and *interpersonal skills*.

By and large, the principles of psychological learning have been observed to serve as general guidelines to conduct a training programme in organisations. Two principles, viz., (i) individual differences in ability and (ii) individual differences in motivation.

As for ability is concerned, those trainees with higher levels of mental ability may be capable of learning to perform a job task in a short time, whereas others may be disinterested and even drop out because of failure to grasp the basics.

As for motivation or desire to learn, this can be influenced by the trainee's level of involvement in the job and career. Another factor influencing motivation to learn in a training programme is the personality trait called "locus of control" (internally or externally oriented persons). It has been observed that internally oriented persons are much more likely to exhibit high levels of motivation as compared to those extrinsically motivated.

4.5 PERFORMANCE APPRAISAL

It may be defined as a structured formal interaction between a subordinate and supervisor or an employee and an expert that usually takes the form of a periodic interview (annual) in which the work performance of the subordinate or the employer is examined and discussed for helping him grow and develop in organisational settings. Through a well-organised appraisal system an employee can create learning spaces for himself in an organisation.

4.5.1 Objectives of Performance Appraisal

A good performance appraisal system must have the following objectives:

- i) Help identify an employee's weaknesses and strengths with a view to overcome such weaknesses and improve over his strengths and thereby enable him to improve his performance and that of the department.
- ii) Generate sufficient feedback and guidance from the reporting officers to the employee.
- iii) Contribute to the growth and development of the employee through helping him in realistic goal setting.
- iv) Provide inputs to system of rewards including salary increments, appreciations, additional responsibilities, promotions, etc.
- v) Help in creating a desirable culture and traditions in the organisation.
- vi) Help identifying employees for the purpose of motivating, training and developing them behaviourally, professionally and technically.
- vii) Generate significant, relevant, free and valid information about employees.

4.5.2 Main Components Criterion of Performance Appraisal System

In order to meet the objectives mentioned earlier, the following components criterion (Pareek & Rao, 2006) could form a part of the performance appraisal system:

- i) **Identification of Key Performance Areas (KPA's):** Performance has to be appraised against certain functions and objectives that have been agreed to by the employee and his reporting officer. The critical functions associated with a

given role may be called as an employee's key performance areas or key function areas.

After identifying such key function areas it is necessary for both the employee and his reporting officer, to have an understanding of the expected

- i) level of performance
- ii) nature of performance
- iii) quality of performance
- iv) time in which the tasks are expected to be completed, etc.

The above is possible only through adequate discussions between the employee concerned and the reporting officer under whom the employee works. Unless such expectations are shared the final appraisal may have the larger probability to be a reflection of the reporting officers' biases rather than a reflection of the employee's actual performance on the job.

- ii) **Setting of goals or objectives every year for the next year:** In order to have a clear understanding of the expectations it is useful to set goals or objectives under each KPA. A good performance appraisal should take into account how well an individual has performed his role rather than what results the group or department has achieved wherein he belongs to. Thus the individual should be assessing for his effectiveness in performing whatever functions given to him.
- iii) **Identification of critical behavioural dimensions:** A good performance appraisal system should necessarily involve a couple of behavioural dimensions that are critical for managerial effectiveness. The roles of these dimensions are essential for performing more and more high managerial jobs and universally applicable in the organisation.

A set of four such qualities (although some other essential qualities are required to identify through a good research programme) are likely to meet these criteria or dimensions such as (i) creativity, (ii) initiative, (iii) contribution to team spirit and (iv) Contribution to the development of subordinates.

Again, if some organisations want loyalty and conformity as more desirable qualities, the same could be included. Periodic review on these qualities through an appraisal system helps managers to increasingly develop themselves in relation to these qualities. Hence, this is conducive for managerial development.

- iv) **Periodic review of performance on objectives and behavioural dimensions:** Ratings on performance and behaviour are necessary in any appraisal system to generate data. Such ratings are generally considered as a basis for discussions and exchange of expectations. Some experts use the categories like outstanding performance, satisfactory performance, good performance, average performance, below average performance, etc. and some others prefer scaling system of 5-point, 10-point, etc. However, what is important in any appraisal system is not the number but the process by which an officer arrives at the number and the communication of this process to the appraisee or appraiser.
- v) **Identification of facilitating and inhibiting factors in performance:** A well-organised performance appraisal system must have the efficiency to identify the factors that help or hinder good performance. Such facilitating and inhibiting factors may be either within or outside the control of the appraisee. A good

performance appraisal system must provide scope for the appraisee to identify these factors. The appraiser's role may be to help him identify many more of these factors, understand their respective roles in reinforcing this facilitating factors and weakening the inhibiting factors, and work out action plans to that effect. In this process, the appraiser helps the appraisee to understand his problems through realistic goal setting and commitment of support.

- vi) **Opportunity to facilitate communication between employee and the reporting officer:** Performance appraisal must provide an opportunity where an employee and his reporting officer can sit together and share with each other their problems, difficulties, perceptions, views, etc. and thereby aim at facilitating the communication between them and developing empathy, mutuality as well as appreciation for each other's problems. Such discussion should not be threatening and in certain occasions may take the form of counselling.
- viii) **Identification of development needs and development of action plan:** In order to identify the training needs of employees performance appraisal data are essential. Continuously poor performance on certain dimensions may be identified and training and developmental activities aimed at developing the employees on these dimensions can be planned. Developmental activities may take the form of organising internal training programmes, sponsoring for outside programmes, delegating higher responsibilities, job rotation for acquiring new skills etc. These should flow from performance analysis and identification of personal factors facilitating or inhibiting performances.

Hence, basic criteria to be developed in this system is goal setting, behaviour analysis, communication and feedback. Effective use of this system requires skills of goal setting, interpersonal communication, and counselling. Many managers in the organisation may already possess them to a considerable extent and can train others to make them more effective., However, certain prerequisites are indensable characteristic skills of the training personnel to function as the training staff.

4.6 LET US SUM UP

In order to ensure the employees' productive efficiency and to enhance organisational goals it is essential for newly hired employees to participate in some type of training before they can be finally placed to a new job. Training is also necessary for the employees of all levels – from the lowest to the highest. Again it is not limited to a specific job skills but is directed toward changing attitudes, motivation and interpersonal skills. In fact, training and development serve mainly two purposes – to ensure that techniques and skills : (a) meet current needs (b) are prepared to meet future needs. The factors that influence training and development are (a) organisational strategic plans, (b) organisational policies, (c) career opportunities available, (d) future needs, (e) skills shortage, (f) the need or desire to meet external requirements. The training staff should be knowledgeable in the subject matter, having effective amount of communicating potentials and interpersonal skills. Performance appraisal of the employees is the important source of information on training needs. Performance appraisal is an effective instrument for helping people grow and develop in organisational settings. The main components criterion of performance appraisals system are : (a) Identification of Key Performance Areas (KPA), (b) Setting of goals or objectives every year for the next year, (c) Identification of critical behavioural dimensions, (d) Periodic review of performance by the rating scale, (e) Identification of facilitating and inhibiting factors in performance, (f) Facilitating communication and (g) Identification of development needs and development of action plan for future.

4.7 UNIT END QUESTIONS

- 1) Define training. What is the purpose of training and development?
- 2) Narrate the factors that influence training and development.
- 3) Define performance appraisal. What are the objectives of performance appraisal?
- 4) Discuss the main components criteria of performance appraisal.
- 5) What should be the characteristics of training staff?

4.8 GLOSSARY

Training	: Training events encompass any activity in which an individual learns something new.
Performance appraisal	: Performance appraisal is a structured formal interaction between an employee and an expert that usually takes the form of a periodic interview (annual) in which the work performance of the employee is examined and discussed for helping him grow.

4.9 SUGGESTED READINGS

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UNIT 1 LEARNING AND MOTIVATION IN ORGANISATIONS

Structure

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Learning: Definition and Meaning of Learning
- 1.3 Theories of Learning
 - 1.3.1 Behaviouristic Theories
- 1.4 Cognitive Theory
 - 1.4.1 Insight Experiments
 - 1.4.2 Sign Learning
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- 1.13 Suggested Readings
- 1.14 Answers to Self Assessment Questions

1.0 INTRODUCTION

Learning and Motivation are important concepts in the understanding and management of organisational behaviour. This unit will enable you to deal with the meaning of learning and motivation in the context of managing organisational behaviour. It also presents the various theories relating to learning and motivation in organisations. This unit also presents the concept of employee behaviour modification using the principles of reinforcement and punishment.

1.1 OBJECTIVES

After going through this unit, you will be able to:

- Define ‘learning’ and ‘motivation’;
- Understand the major principles of learning;
- Discuss the different theories of learning and motivation; and
- Explain employee behaviour modification.

1.2 LEARNING: DEFINITIONS AND MEANING OF LEARNING

In this section, we will discuss the definition and meaning of learning, the different theories of learning and how the theory of learning can be used in managing employee behaviour in organisations.

Learning is defined as “any relatively permanent change in behaviour that occurs as a result of experience”. It is a **continuous process** and human beings are always undergoing the process of learning as a result of their interactions with the environment in which they operate.

The key component in learning is its outcome i.e ‘**change** in behaviour’. The change may be positive or negative from the organisational point of view. For instance, people may learn negative or unfavourable behaviours like resistance and absenteeism as a result of their experiences, as well as favourable behaviours like increased productivity. Whether the outcome is favourable or unfavourable depends on their experiences as well as how they process them.

It is also important for the change that has occurred has to manifest itself in **behavioural modification**. That is, learning has to be accompanied by a change in actions. Any change that occurs in people's thought processes or attitudes does not constitute learning unless it is accompanied by change in behaviour.

The change in behaviour has to be an outcome of **experience**. Experience may be acquired directly, through observation or practice, or indirectly through reading or listening to another person's experience.

Finally, the change that has occurred has to be **permanent** to understand that learning has taken place. A temporary change in behaviour as a result of tiredness or any other factor does not constitute learning.

To state briefly, one can consider that learning has taken place, when there is a change in a person's behaviour as a result of his experiences and when the change manifests itself in the form of permanent behavioural modification.

1.3 THEORIES OF LEARNING

The theories of learning explain the processes by which people can acquire patterns of behaviour and can be classified under three main heads. These are Behaviouristic Theories (including classical conditioning and operant conditioning), Cognitive Theories and the Social Learning Theory.

1.3.1 Behaviouristic Theories

Behaviouristic theories or Behaviourism constitute the traditional theories of Learning. These theories were propounded by Ivan Pavlov and John B. Watson.

The behaviourists attribute learning to the association between **stimulus** and **response**. Behaviouristic theories are also called the *connectionist theories of learning* because of their emphasis on the connection between the stimulus and the response. They mainly deal with the role played by *conditioning* in the process of learning.

Classical Conditioning: The theory of classical conditioning grew out of the experiments conducted by Russian physiologist Ivan Pavlov in the early 1900s. As part of the experiment, Pavlov performed a simple surgical procedure on a dog, which allowed him to accurately measure the amount of saliva it secreted. When Pavlov presented the dog with meat, the dog showed a significant increase in salivation. At the next stage, he rang a bell without offering any meat, and the dog showed no change in the amount of saliva secreted. Then Pavlov proceeded to ringing the bell while presenting the meat to the dog. After sometime, the dog started showing an increase in the saliva secreted simply on hearing the bell, even without the meat being presented. This indicated that the dog had become classically conditioned to associate the ringing of the bell with meat, and respond to it.

In terms of the theory, the meat was an **unconditioned stimulus** and the salivation was an **unconditioned response**. Whenever the dog was offered the meat it responded by salivating. The bell was a **conditioned stimulus**. It had no connection to the response by itself initially, but after being associated with the unconditioned stimulus, that is the presentation of meat, it eventually caused the dog to salivate even when it was presented alone. The last concept is called **conditional response**.

Thus, classical conditioning can be defined as a “*type of conditioning in which an individual responds to some stimulus that would not ordinarily produce such a response.*” It is a process in which a formerly neutral stimulus, when paired with an unconditioned stimulus, becomes a conditioned stimulus that elicits a conditioned response. It describes the link between a stimulus and a response (S – R).

Classical conditioning can sometimes be observed even within the **organisational context**. For example, whenever the top management is due to visit a factory the factory is cleaned up and the employees are expected to come to work dressed neatly. It is sometimes observed that the employees come to work dressed neatly whenever the factory is cleaned even if the top management is not due to visit. In this case, the cleaning of the factory is a conditioned stimulus the dressing of the employees is the conditioned response.

Classical conditioning has been criticized as being passive. It only represents a very small part of human learning and is highly dependent on being offered a stimulus. In other words, it only deals with unlearned or automatic reactions or reflexive behaviour; whereas most experts agree that human behaviour is much more complex. This led to the emergence of operant conditioning.

Operant Conditioning: Operant conditioning differs from classical conditioning in that it deals with **voluntary or learned behaviour** as against reflexive or unlearned behaviour. Proponents of operant conditioning like B.F Skinner argue that people learn to behave in a certain way in order to get something they want or to avoid something they do not want.

Operant conditioning may be defined as a “*type of conditioning in which desired voluntary behaviour leads to a reward or prevents a punishment.*” According to Skinner, creating pleasant consequences to follow a certain types of behaviour would increase the frequency of that behaviour. On the other hand, a negative consequence of a behaviour would discourage the person from repeating that behaviour.

Basically, the main aspect in which operant conditioning differs from classical conditioning is that, in classical conditioning, the stimulus is controlled to result in a certain response. But in operant conditioning, the stimulus situation does not elicit the response but acts as a cue for a person to emit a certain response. The main factor in operant conditioning is what happens as a result of the response.

For example, in an organisation, if a person is rewarded for higher productivity, the person will be encouraged to work harder to increase his productivity. The person associates working harder with getting a reward, and this is a learned behaviour. In this case, working harder is the response and the reward is the stimulus (R – S). Similarly, if a person is penalised for coming late to office, the person would try to avoid being late in future.

Thus, operant conditioning has great significance in managing human behaviour in an organisational context. It helps managers identify ways to encourage positive behaviour in employees and discourage negative behaviour.

Self Assessment Questions 1

1) Write the definition of learning.

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2) Write the emphasis of behaviouristic theories.

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3) Write the definition of classical conditioning.

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4) Write how operant conditioning differs from classical conditioning

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1.4 COGNITIVE THEORY

So far the kinds of learning that have been studied were regarding the organisation of behaviour into learned stimulus-response associations. This organisation of behaviour is a very simple form of learning, but for more complex form of learning, we must consider the roles of perception and knowledge, or cognitive processes.

Those who have been identified with cognitive viewpoint argue that learning particularly in humans, cannot be fully explained in terms of stimulus response associations. They propose that the learner forms cognitive structure in memory, which preserves and organises the information from various events that occur in a learning situation.

When some information is presented to the individual, he must encode the stimulus and scan it against his memory to determine an appropriate action. What response will be given will depend upon the cognitive structure retrieved from memory and the context in which the stimulus occurred.

Thus, the individual's response is a decision process that varies with the nature of the situation and the person's memory for prior events.

1.4.1 Insight Experiments

Wolfgang Kohler (1925) performed a series of experiments with chimpanzees. At some point of working at a problem, the chimpanzees grasped its inner relationship through insight, i.e. they solved the problem not through mere trial and error learning but by perceiving the relationships that are essential for problem solving. Kohler conducted an experiment on his most intelligent chimpanzee: Sultan. The chimpanzee was kept in a cage and some fruits were kept outside the cage. There was a short stick lying in the cage but he could not reach the fruits with it. There was a longer stick outside the cage which could not be reached by his hands but can be pulled within reach by means of the small stick. Sultan tries to reach the fruit once more with the help of the small stick but as he cannot reach it he gazes about him and suddenly picks up the small stick once more and tries to reach for the longer stick and pulls it towards him and with the help of this stick he secures the fruits.

On observing the complete process, it is seen that the moment Sultan's eyes fell on the long stick, his procedure formed one consecutive whole and it is seen that the solution appeared quite suddenly, in an interval of hesitation and doubt and undoubtedly has a relation to the final objective and the attainment of the end goal.

Thus this study demonstrates as to how insight occurs. A moderate degree of insight is common in 'human beings and we tend to take it for granted with the occurrence of insight, we find solution of a problem as though a light had been turned on in the darkness which is appropriately called the 'aha' feeling experience'. This experience usually comes with solving puzzles or riddles.

The variables that influence insight learning have some general principles.

Insight depends upon the arrangement of the problem situation i.e. The problem situation should be perceived completely or as a whole. If this situation is not completely available at one time, it would be difficult to obtain a solution. Human beings can rearrange the problem mentally, they can form mental images of the situation and rearrange objects in that image in an attempt to find a solution. Mental manipulations go on preconsciously and only when a solution is found, the person will realise that he had been thinking about the problem.

Once a solution occurs with subject, it can be repeated promptly. Gradual solution appears to be the rule in trial and error learning. Sudden solution is the rule of insight.

When some solutions appear through insight there is a possibility that these solutions appear on other similar occasions.

A solution achieved with insight can be applied in new situations. Since what is learned in the insight experiment is at cognitive relationship between means and an end the solution can appear even when the objects or tools get substituted.

An effective learner is a resourceful, adaptable person able to use what he knows in new situation and to discuss solutions to problems that he has never faced before. Therefore emphasis is upon insightful learning rather than on rote learning or on mechanical skills encourage such problem solving behaviour.

1.4.2 Sign Learning

Edward.C.Tolman (1948) believed that much of the learning is sign learning i.e. 'what leads to what'. He used a rat to run a maze and found that the rat developed a kind of map or cognitive structure, of the maze instead of learning merely a sequence of left and right turns. If a familiar path is blocked, the animal can adopt another route based on this understanding of spatial relationships.

Thus sign learning may be defined as an *acquired expectation that one stimulus will be followed by another in a particular context*. That is, one response may be readily substituted for another, provided both lead to the same end point where the expected stimulus will be encountered. Thus a rat that has learned to run a maze to obtain food in the goal box will, if the maze is flooded with water, swim without error to the goal. The rat appears to have learned the location of the goal rather than a chain of specific stimulus response connections.

Because what is learned is a set of expectation or a cognitive map of the environment rather than a specific response. Thus Sign learning classifies itself as learning with understanding rather than as conditioning.

1.4.3 Latent Learning

If one refers to learning that is not evidenced by behaviour at the time of the learning. Typically, such learning goes on under low levels of drive or in the absence of reward. When drive is heightened or appropriate reinforcement appears, there is a sudden use of what has been previously learned.

In theorising about how rewards and punishments influence behaviour Tolman distinguished between learning and performance. In the latent learning study, the rat learned something about the spatial arrangement of the maze, but this learning was not evidenced in performance until reward motivated the animal to perform. Tolman

maintains that for learning reward and punishment serve to convey information, to teach “what leads to what” they do not ‘stamp in’ specific responses and eliminate others. In performance, on the other hand, rewards and punishments function to determine which of a repertoire of possible responses, the subject decides to use. The response with the greatest expectation of reward will be made more quickly and efficiently.

1.5 SOCIAL LEARNING THEORY

The social learning theory states that people learn not only from their own experiences, but also from observing what happens to other people and even just by being told about something. It is in effect an extension of the operant conditioning theory in that it subscribes to the idea that behaviour is a function of consequence. However, it goes beyond operant conditioning by recognising the role of perception in learning.

According to the social learning theory, people learn not only from the actual consequences that they have experienced in response to their behaviour, but also from what they perceive the consequences might be if they behave in a certain way. For instance, if a person sees his co-worker being rewarded for good behaviour, he will learn to adopt the same behaviour himself to attain the consequence, which is the reward.

The role of models is very important in social learning as people learn from observing the model. There are four aspects to social learning:

1.5.1 Attention Processes

People learn from a model only when the model manages to capture their attention. People usually learn from models that are attractive, are similar to them or operating in a similar situation as they are, or are repeatedly available.

1.5.2 Retention Processes

The model’s influence on a person determines how well the person retains what he has learnt even when the model is no longer in front of him.

Motor Reproduction Processes: After the person observes a new behaviour from the model, the behaviour must then be implemented. This shows efficacy of what has been learnt.

1.5.3 Reinforcement Processes

People will be motivated to repeatedly exhibit the modelled behaviour if they are rewarded for it. Therefore, behaviours that receive positive reinforcement will be learnt better and repeated.

Self Assessment Questions 2

1) Write the cognitive view point of learning?

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2) Write the meaning of latent learning?

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3) Write the meaning of extinction?

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1.6 PRINCIPLES OF LEARNING AND THE THEORY OF REINFORCEMENT

We have learnt in the previous section that whether a behaviour is learnt or not depends on the response to the behaviour exhibited. In this context, the concepts of Reinforcement and Punishment play an important role in the learning process. Most experts agree that reinforcement is more important than punishment. That is, people are more likely to learn to exhibit behaviour that is followed by a reward or praise than to stop exhibiting a behaviour that results in punishment. One of the important theories of reinforcement is Thorndike’s Law of Effect. According to Thorndike, *“Of several responses made to the same situation, those which are accompanied or closely followed by satisfaction (reinforcement)...will be more likely to recur: those which are accompanied or closely followed by discomfort (punishment)...will be less likely to occur.”*

Although the Law of Effect is generally accepted to be valid, there are some exceptions to it. For instance, a person’s cognitive rationalisation may neutralise the law. An inefficient employee may persist in the belief that he has high efficacy and that he is doing all he can to accomplish the goals given to him. Even when his performance falls short of the manager’s expectations, he may be unresponsive to any efforts made to correct him or improve his performance because he believes that he does not need any improvement.

In addition to this, the Law of Effect has its limitations and cannot be used as an overall theory of learning, as there could be factors other than reinforcement and punishment than also affect learning. However, despite its restrictions, the Law of Effect remains as very important part of the theory of learning and can be used in *shaping* behaviour.

Shaping refers to the attempts made to mould the behaviour of individuals through some methods. In general, there are three ways in which behaviour can be shaped: Reinforcement, Punishment and Extinction.

1.6.1 Reinforcement

Reinforcement is defined as anything that increases the strength of the response and also induces repetitions of the behaviour that preceded the reinforcement. It is

different from a reward. A reward is something that the person who presents it thinks is desirable. It may or may not increase the strength of the response or induce repetitions of the behaviour. For example, a manager may publicly praise an employee for finding an error in the production of factory. However, the employee may be harassed by his colleagues who are directly affected by the finding of the error. In this case, the employee may think twice in future before repeating any action that might make things difficult for him with his colleagues even though it might attract the praise of the management.

Here it may be noted that the reward (the praise) has not been a reinforcer as it does not encourage the employee to repeat that behaviour.

Not only is there a difference between rewards and reinforcers, but a distinction should also be made between positive and negative reinforcers.

- i) **Positive Reinforcement:** Positive reinforcement is anything that strengthens and increases behaviour by the *presentation of desirable consequences*. In other words, following a behaviour by something pleasant is positive reinforcement. For example, giving a bonus for high productivity is positive reinforcement.
- ii) **Negative Reinforcement:** Negative reinforcement is anything that strengthens and increases behaviour by the *withdrawal or removal of unpleasant consequences*. For example consider an organisation that puts a ban on recreational activities of employees during working hours (such as not allowing them to read or check emails) due to low productivity. When productivity improves, the organisation may lift the ban and allow recreational activities in a limited form. The lifting of the ban is negative reinforcement.

1.6.2 Schedules of Reinforcement

There are two main types of schedules of reinforcement – *continuous reinforcement* and *intermittent reinforcement*. In continuous reinforcement, the desired behaviour is reinforced each time it is demonstrated. In intermittent reinforcement, the desired behaviour is reinforced often enough to make the behaviour worth repeating, but not each time it is repeated. Intermittent reinforcement can further be divided under ratio schedules (the person is reinforced after giving the desirable response a certain number of times) and interval schedules (the individual is reinforced after specific time intervals).

1.6.3 Punishment

Punishment is the act of *causing an unpleasant consequence to a response* to prevent the person from repeating that behaviour. Placing an employee on suspension for excessive absenteeism is an example of punishment. Punishment is not the same as negative reinforcement. Negative reinforcement strengthens and increases behaviour while punishment seeks to weaken and decrease behaviour.

1.6.4 Extinction

Eliminating any reinforcement that is maintaining a behaviour is called extinction. For instance an organisation may announce that it wants to adopt an open door policy to encourage employees to express their opinions to the management. However the managers may not be responsive to employees who approach them to discuss problems. This lack of responsiveness causes employees to stop coming up to the managers over time. This is extinction.

Most organisational theorists subscribe to the idea that reinforcement (whether positive or negative) is more effective than punishment in modifying human behaviour. People do not like being punished, therefore excessive use of punishment can lead to rebelliousness and undesirable consequences.

1.7 MOTIVATION

In this section, we will discuss the definition and meaning of motivation, the different theories of motivation in the organisational context and the role of motivation in managing employee behaviour in organisations.

1.7.1 Definitions and Meaning of Motivation

Motivation is one of the important factors that govern employee behaviour within an organisational framework. It is a generally accepted fact that a highly motivated person is more productive than a person who is not very motivated. It is therefore, vital for managers to understand the nature of motivation and the factors that determine how motivated employees are in order to optimize performance and increase job satisfaction.

Motivation may be generally understood as a set of forces that move a person towards a goal. It deals with how behaviour is energized, how it is directed and how it is sustained.

According to Stephen Robbins, motivation is *“the willingness to exert high levels of effort toward organisational goals, conditioned by the effort’s ability to satisfy some individual need.”*

Fred Luthans defines motivation as *“a process that starts with a physiological or psychological deficiency or need that activates behaviour or a drive that is aimed at a goal or incentive.”*

From these definitions, we can understand that there are three important components in the process of motivation. These are: needs, drives and goals. **Needs** are physiological or psychological deprivations, which set up a **drive**, which refers to the effort expended to satisfy that need. The efforts are directed towards a **goal**, which is the achievement of the physiological or psychological state in which the need has been met.

At a basic level, needs, drives and goals can be explained with the following example. If a person is hungry, the hunger is a need. This hunger compels the person to look for food, which is the drive. After the person finds and consumes the food his need has been fulfilled, therefore the state of being where hungry is sated is the goal. Once the goal has been met, the need ceases to exist.

1.7.2 Motives

Motives or needs serve as the starting point for the theories of motivation. They may be broadly classified into three categories: Primary motives, General Motives and Secondary Motives.

- i) **Primary Motives:** Primary motives are those that are *unlearned* or *physiologically based*. They generally include hunger, the need for sleep, thirst, avoidance of pain, etc.
- ii) **General Motives:** General motives, like primary motives are also *unlearned*. But the primary distinction is that they are *not physiologically based*. Motives

such as curiosity, manipulation, activity and affection are the main examples of general motives. Within an organisational context, general motives have greater relevance than primary motives.

- iii) **Secondary Motives:** Secondary motives are much more important than primary and general motives in the developed world. The concept mainly refers to those needs that are *learned* rather than instinctive or physiological. The three important secondary motives are the Power motive, the Achievement motive and the Affiliation motive as identified by David McClelland.

The power motive refers to a person's drive for superiority or power over others. This motive signifies a need to manipulate others or exercise influence over them.

The achievement motive drives a person to perform highly and the best of his ability or to be successful in competitive situations. Their goal is generally the satisfaction derived from the accomplishment of a task.

The affiliation motive refers to the need to be accepted by a group and to feel a sense of belonging.

In addition to power, achievement and affiliation, modern psychologists also recognise two other secondary motives: the Security motive and the Status motive.

The security motive is the need in people to protect themselves from the contingencies in life and to avoid situations in which they are unable to satisfy their primary, general and secondary motives.

The status motive is related to social prestige and drives a person to seek the symbols of material success such as a big house or car, the latest gadgets, etc.

1.8 THEORIES OF MOTIVATION

The theories of motivation help managers understand why people choose to work and what drives them to perform to the best of their ability. An understanding of this is very important to help managers optimize performance for the achievement of organisational goals.

The theories of motivation can be categorised into two: Content Theories and Process Theories.

1.8.1 Content Theories

Content theories are concerned with factors that arouse, start or initiate motivated behaviour. The following are the main content theories of motivation.

Needs Hierarchy Theory

The Needs Hierarchy theory was developed by Abraham Maslow and became popular during the 1960s. According to Maslow, human needs form a five-level hierarchy, which he developed into a pyramid form. The lowest level of the pyramid showed the most basic needs, with the needs becoming more complex as they went up the pyramid.

The five levels of needs identified by Maslow are as follows:

- Physiological needs: need for food, clothing, shelter, etc.
- Safety and security needs: need to free from fear of physical, financial and psychological harm

- Social needs: need for love and affection and basic social relations
- Esteem needs: need for respect and recognition
- Self actualisation needs: need to optimize performance and the freedom to be creative and innovative.

According to Maslow, people generally follow this hierarchy in fulfilling needs. For instance, people usually try to fulfil their physiological needs first. Once that need is met, they move to the next higher need and so on. Motivation in an individual is a function of the need that is unfulfilled. For instance, a person who has fulfilled his physiological needs is no longer motivated by them. He strives to fulfil the next level of need that is safety needs.

It is important for managers to understand the level at which their employees are in order to motivate them effectively. A person who has a secure job is unlikely to be motivated by the security need. The manager then needs to identify what will motivate them and offer to fulfil that need. Basically an individual takes up a job to fulfil his physiological needs. Once those are fulfilled he seeks job security. This way he moves up the hierarchy until he reaches the need for self actualisation. The need for self actualisation is the highest level of needs.

Malsow's theory had been thought to be too simplistic by later psychologists, who felt that needs cannot be classified into watertight compartments. However the general idea behind Maslow's theory has been accepted as an important contribution towards understanding the needs of employees in an effort to motivate them. Maslow himself acknowledged later that it was possible for the needs hierarchy to be reversed in some situations. For instance, a starving artist may have the need for self actualisation by making a great painting even though his physiological and security needs have not been met.

Two Factor Theory

In the late 1950s, Herzberg and his associates conducted an extensive study involving two hundred engineers and accountants to find out the extent of their satisfaction or dissatisfaction with their work. The findings of his study built on Maslow's need hierarchy in an attempt to find out what motivates people in their work.

During Herzberg's study, the respondents were asked to recall instances when they felt particularly satisfied or dissatisfied with their work. Herzberg found that most of the factors that caused employees to express satisfaction with their work related to the content of their jobs such as being given a challenging project, greater responsibility, and interesting opportunity, receiving recognition, etc. Herzberg called these factors 'motivators'. On the other hand, feelings of discontent or dissatisfaction were associated with factors that were not only associated with job content, but also factors that were affected the immediate work environment but were not directly related to the job. Some such factors were poor working conditions, poor supervision, lack of benefits, etc. These were termed 'hygiene factors'.

According to Herzberg's Two Factor Theory, the presence of 'motivators' led to job satisfaction, while the absence of motivators led to dissatisfaction in employees. On the other hand, the presence of hygiene factors prevented feelings of dissatisfaction in employees but did not directly led to feelings of satisfaction. In other words, it was the job content factors that were directly linked to employee motivation and manager had to pay more attention to motivators rather than hygiene factors in keeping his employees motivated.

Herzberg's motivators are generally compared to Maslow's higher level needs such as the need for esteem and self actualisation. The hygiene factors compare to the lower level physiological, safety and social needs. Herzberg's theory has been criticised for minimising the role of individual differences. What is a motivator for one person may only be a hygiene factor for another. However, the theory plays an important role in the area of job design.

ERG Theory

The ERG Theory as developed by Clayton Alderfer is an extension of both the Needs Hierarchy Theory as well as the Two Factor Theory. Alderfer suggested that needs can be classified into three categories – existence needs, relatedness needs and growth needs (ERG).

- Existence needs are concerned with the physiological well being of the person.
- Relatedness needs are concerned with the need to establish and maintain personal relationships.
- Growth needs are concerned with the desire to be creative and to make productive contributions.

The main aspect in which Alderfer differs from Maslow is in the fact that he considered that these needs formed a continuum rather than a hierarchy. According to him, different needs can exist simultaneously and people can move backwards and forwards on the continuum as circumstances change. Therefore, according to this theory, there is every possibility that a lower level need can assume more importance than a higher level need in a person at any given time.

All the content theories of motivation assume that people have different kinds of needs, and typically higher level needs motivate people more than lower level needs. While this is true to some extent, it is generally believed that the idea behind content theories is rather limiting in light of the complexities of work in modern organisations.

1.8.2 Process Theories

Process theories are concerned not only with factors that arouse behaviour but also the process, direction or choice of behavioural patterns. They attempt to explain the thought processes of individuals when they decide whether or not to behave in a certain way. In this they provide better direction to managers in their attempt to motivate employees. The following are the main process theories:

Expectancy Theory

The expectancy theory was developed by Victor Vroom as an alternative to the content theories. This theory attempted to explain why people behave in a certain way. He developed the theory around the concepts of Valence, Instrumentality and Expectancy – hence, it is also called the VIE theory.

Valence refers to the strength of an individual's preference for a particular outcome. In other words, it is the value that an individual gives to a particular outcome. The valence is positive when the individual prefers attaining to outcome to not attaining it. It is zero when the individual is indifferent as to whether he attains the outcome or not.

Instrumentality is the degree to which a first level outcome is likely to lead to the desired second level outcome.

Expectancy is the probability (from 0-1) a certain action will lead to the achievement of the desired outcome. A probability of zero indicates that the efforts will not lead to the desired outcome, therefore, an individual must see a probability of greater than zero to even put in some effort.

Expectancy is different from instrumentality in that it relates efforts to first level outcomes, while instrumentality relates first level outcomes to second level outcomes.

For example, if a person desires to get a promotion, the strength of that desire refers to valence. If it is important to have a high performance to get a promotion, the likelihood that greater efforts from the person will lead to better performance relates to expectancy, and the importance of high performance in getting a promotion refers to instrumentality. Therefore:

$$\text{Valence} \times \text{Instrumentality} \times \text{Expectancy} = \text{Motivation}$$

According to this theory, a person would consider all the three elements before deciding to put in efforts towards a goal. It also recognises that each person has a unique combination of valences, instrumentalities and expectancies. In this, it recognises individual differences. However, the main shortcoming of the Expectancy theory is that it does not provide any specific suggestions on what actually motivates people in organisations. It limits itself to a conceptual understanding of individual motivation.

The Porter-Lawler Model

This model developed by Lyman Porter and Edward Lawler is an extension of the Expectancy Theory. It is based on the premise that motivation or effort does not equal satisfaction or performance, as performance is affected by other factors also like the person's traits and abilities.

According to Vroom's theory, if valued rewards stem from high performance, people will automatically associate satisfaction with performance and will be motivated.

Porter and Lawler, on the other hand argue that satisfaction does not always lead to performance. Rather is reverse is true, because people can become complacent after having achieved satisfaction once. On the other hand, *performance can lead to satisfaction* if the reward systems are effective.

Therefore, according to this model, it is the reward structures in an organisation which determine how motivated people will be to perform. If rewards are effectively linked to performance through role clarity and clearly defined targets, motivation will follow as people know what is expected of them and will be motivated to perform in order to receive the rewards that give them satisfaction.

The Porter-Lawler model is thought to be more application oriented than the Vroom Theory as it gives managers the concept that reward systems can be used to motivate employees. However, it is believed that cognitive process play a much bigger role in satisfaction than what the theory considers, as different people perceive rewards and satisfaction differently.

1.9 OTHER CONTEMPORARY THEORIES

1.9.1 Equity Theory

The equity theory has been developed by social psychologist Stacy Adams. This theory focuses on people's sense of justice and fairness. According to the theory,

a person's motivation depends on the degree of equity that people perceive in their work situation. An employee's sense of satisfaction comes about when he perceives that he inputs are in balance with the outcomes. Inputs generally refer to a person's qualification, experience and special abilities. Outputs are the salary, benefits, etc.

However, people regularly compare their outcome-input ratio to the outcome-input ratios of relevant others, i.e. friends, colleagues, neighbours etc. in the same organisation or other organisations. Sometimes they may also compare their present job with some other position that he held in the past in the same or another organisation.

Equity occurs when the when a person perceives his outcome-input ratio to be equal to the outcome-input ratio of relevant others. Inequity occurs when there is an imbalance between the person's outcome-input ratio and the outcome-input ratio of relevant others. This leads to what is known as 'equity tension'.

When the person feels under-rewarded, it creates anger and tension in him, when he feels over-rewarded it may create a sense of guilt. Presence of equity tension motivates a person to take steps to correct it. An under-rewarded person may reduce the quantity or quality of his output or lower his level of commitment to the job, an over-rewarded person may either work harder or discount the value of the reward to restore a sense of balance.

The biggest limitation of the equity theory is that it does not provide any guidelines on how to restore equity. However, it highlights the importance of social comparison and recognises the role of cognitive processes in motivation.

In addition to the equity theory, there are other contemporary theories that attempt to explain the process of motivation in organisations. Some other contemporary theories of motivation are the attribution theory, control theory and agency theory.

1.9.2 Attribution Theory

The attribution theory states that individuals perceive behaviour to be a function of internal and external factors that cause them to behave in a certain way. Internal factors may be personal attributes such as ability, effort, education, etc and external factors like general economic conditions, government policies, weather, etc. In any given situation a person's behaviour is likely to be influenced by how he *perceives* the set of internal and external factors affecting him. It is these perceptions that directly impact the effort that a person is willing to expend towards a certain outcome, and therefore, his motivation.

1.9.3 Control Theory

The control theory states that behaviour depends on the degree of control that individuals perceive to have on their lives. A person who perceives that he has a high degree of control over his life and the outcomes of his behaviour will be more motivated and experience less stress in the job than a person who perceives a low degree of control over his life.

1.9.4 Agency Theory

The agency theory explores the relationship between top management (the principal) and the subordinate employees (agents). The agency relationship emerges when the principal engages another person or persons to perform some service. However, there may be a divergence of ideas between the principal and the agent, i.e. the employees may not know clearly what is expected from them. The responsibility

therefore, rests with the principal to make objectives, outcomes and rewards clear to the agents to ensure that they remain motivated.

All the different theories of motivation seek to explain the process by which people are encouraged to put in efforts to achieve some goals. Although all the different theories differ from each other, they are not in competition with each other, as each one tries to fill the gap in the other theories in an effort to achieve a comprehensive understanding of the phenomenon of motivation in organisations.

Self Assessment Questions 3

1) Differentiate meaning of need, drive and goal.

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2) Write the assumptions of process theories.

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3) Write the meaning of expectancy.

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1.10 LET US SUM UP

In the above unit we have dealt with learning and motivation. We have had a overview of the definition of learning and an explanation of the behaviouristic theories which comprises of classical conditioning and operant conditioning. Behaviouristic theories emphasis on the connection or association between the Stimulus & Response. Opposing them, the cognitive theorists such as Insightful learning & Sign learning have stressed that the organisms have the capacity of thinking and thereby process the information available to them and arrive at a solution. Further they are able to apply the same to other similar situations. Social learning theorists in turn have shown that learning takes place even with the help observation and modelling and the reinforcement theory has spoken about the different reinforcements and has given us an idea as to how shaping takes place.

The trend shows that learning does not take place without motivation and there we have understood the difference between the need, drive and goal. Moreover, the difference between, biological, psychologist and general needs have also been discussed. Turning to the theories of motivation, the contention of the content theories

has been explained thought Maslow, Herzberg & ERG theories. Proceeding to the process theories, the expectancy theory of Vrooms and Porter & Lawler Model have been explained and coming to the contemporary theories, the equity theory, attribute theory, control theory and agency theory have been discussed. The theories of motivation whether, the earlier ones or the contemporary views have still retained their relevance and have application capabilities. Human being is unique and dynamic and what motivates him / her is always an intrigue. Therefore all the theories at one time or other come into play to understand the needs and address them accordingly with the help of different theories.

1.11 UNIT END QUESTIONS

- 1) Define learning. Briefly discuss the applications of behaviouristic theories to organisational behaviour.
- 2) Illustrate the importance of cognitive theory of learning in organisational setup.
- 3) Delineate the salient features of content theories.
- 4) What are the major assumptions of process theories, discuss the any two in detail.
- 5) Explain the importance of contemporary theories of motivation.

1.12 GLOSSARY

Classical conditioning	: The association developed between the conditioned stimulus and conditioned response.
Organisation context	: The environment in which the employee works.
Operant conditioning	: The organism emits a response or rather operates on the environment to avail reinforcement, i.e. it is proactive.
Insightful learning	: When a problem situation is presented completely to organism, it has the capacity of finding a solution based on its cognitive process.
Sign learning	: The organism develops a mental map of the environment and can apply this learning in any similar situation.
Social learning	: This states that people learn more from observation of the environment in which they operate.
Reinforcement	: It is an attempt of increasing the strength of the response whether positive or negative.
Punishment	: If meted out needs to unpleasant consequence.
Extinction	: Not reinforcing behaviour leads to disappearance of the same.
Expectancy Theories	: Are based on the assumptions that people choose between different courses of action according to which one results in the most favourable outcome for themselves.

: These focus on the cognitive processes at work that account for the direction, intensity and persistence motivated behaviour.

1.13 SUGGESTED READINGS

Greenberg. J & Baron, R.A 2003, *Behaviour in Organisation* 8th edition, New Delhi, Prentice Hall.

Luthans, Fred 1995 *Organisational Behaviour* 7th edition, New York McGraw Hall. International edition.

Moorhead. G and Griffin.R.W (2004) *Organisation Behaviour: Managing People and Organisations* 7th edition New York, Houghton Mifflin Company.

Robbin.P. Stephen (2001) *Organisational Behaviour*, 9th edition New Delhi, Prentice Hall India.

1.14 ANSWERS TO SELF ASSESSMENT QUESTIONS

SAQ 1

- 1) Learning is defined as “any relatively permanent change in behaviour that occurs as a result of experience”. It is a **continuous process** and human beings are always undergoing the process of learning as a result of their interactions with the environment in which they operate.
- 2) The behaviourists attribute learning to the association between **stimulus** and **response**. Behaviouristic theories are also called the *connectionist theories of learning* because of their emphasis on the connection between the stimulus and the response. They mainly deal with the role played by *conditioning* in the process of learning.
- 3) Classical conditioning can be defined as a “*type of conditioning in which an individual responds to some stimulus that would not ordinarily produce such a response.*” It is a process in which a formerly neutral stimulus, when paired with an unconditioned stimulus, becomes a conditioned stimulus that elicits a conditioned response. It describes the link between a stimulus and a response (S – R).
- 4) The main aspect in which operant conditioning differs from classical conditioning is that, in classical conditioning, the stimulus is controlled to result in a certain response. But in operant conditioning, the stimulus situation does not elicit the response but acts as a cue for a person to emit a certain response. The main factor in operant conditioning is what happens as a result of the response.

SAQ 2

- 1) Cognitive viewpoint argue that learning particularly in humans, cannot be fully explained in terms of stimulus response associations. They propose that the learner forms cognitive structure in memory, which preserves and organises the information from various events that occur in a learning situation. When some information is presented to the individual, he must encode the stimulus and scan it against his memory to determine an appropriate action. What response will be given will depend upon the cognitive structure retrieved from memory and the context in which the stimulus occurred.

- 2) Latent learning: It refers to learning that is not evidenced by behaviour at the time of the learning. Typically, such learning goes on under low levels of drive or in the absence of reward. When drive is heightened or appropriate reinforcement appears, there is a sudden use of what has been previously learned.
- 3) Eliminating any reinforcement that is maintaining a behaviour is called extinction. For instance an organisation may announce that it wants to adopt an open door policy to encourage employees to express their opinions to the management. However the managers may not be responsive to employees who approach them to discuss problems. This lack of responsiveness causes employees to stop coming up to the managers over time. This is extinction.

SAQ 3

- 1) Needs are physiological or psychological deprivations, which set up a **drive**, which refers to the effort expended to satisfy that need. The efforts are directed towards a **goal**, which is the achievement of the physiological or psychological state in which the need has been met.
- 2) Process theories are concerned not only with factors that arouse behaviour but also the process, direction or choice of behavioural patterns. They attempt to explain the thought processes of individuals when they decide whether or not to behave in a certain way. In this they provide better direction to managers in their attempt to motivate employees.
- 3) Expectancy is the probability (from 0-1) a certain action will lead to the achievement of the desired outcome. A probability of zero indicates that the efforts will not lead to the desired outcome, therefore, an individual must see a probability of greater than zero to even put in some effort.

UNIT 2 ORGANISATIONAL BEHAVIOUR MODIFICATION AND APPLICATION OF THEORY OF REINFORCEMENT

Structure

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Behavioural Management Process
 - 2.2.1 Human Relations Approach
 - 2.2.2 Human Resources Approach
 - 2.2.3 Systems Approach
- 2.3 The Behavioural Sciences Approach
 - 2.3.1 Importance of Job Satisfaction Studies
 - 2.3.2 The Dynamics of Group Behaviour
 - 2.3.3 Power, Politics and Conflict
 - 2.3.4 Organisational Design and Processes
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 - 2.6.4 Positive Reinforcement
 - 2.6.5 Fear Driven Model
- 2.7 Steps in Behavioural Management
 - 2.7.1 Identifying Critical Behaviours
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 - 2.7.3 Identifying Behavioural Consequences
 - 2.7.4 Intervention Strategies
 - 2.7.5 Evaluation of Performance Improvement
- 2.8 Application of OB MOD and the Theory of Reinforcement in Organisations
 - 2.8.1 Improving Employee Productivity
 - 2.8.2 Increasing Employee Discipline
 - 2.8.3 Enhancing Safety
 - 2.8.4 Developing Training Programme
 - 2.8.5 Self Management

- 2.9 Let Us Sum Up
- 2.10 Unit End Questions
- 2.11 Glossary
- 2.12 Suggested Readings

2.0 INTRODUCTION

Organisational Behaviour Management also known as Organisational Behaviour Modification or **OB Mod** is a field that deals with the application of reinforcement concepts to individuals in the work setting. It is concerned with the environmental contingencies of employee behaviour, antecedents and consequences and their impact on performance effectiveness. In other words, it deals with the practical dimension of learning, which is the management and changing of human behaviour to optimise performance. Learning theories like operant conditioning and reinforcement form the cornerstone of OB Mod. In this unit we will be discussing the behavioural management processes as is obtained in the organisations. In the behavioural management process we will be pointing out the human relations and human resources as well as systems approach. The unit will then consider the behavioural sciences approach followed by the organisational change s and the role of the managers. Thereafter the unit will put across how the behaviour modification can be applied to organisational setting. Putting forward the various steps in behaviour management. The unit will discuss how with the help of behaviour modification technique one could improve the employee productivity, discipline etc.

2.1 OBJECTIVES

After reading this unit, you will be able to:

- Define and describe behavioural management process;
- Trace the history of behavioural management in organisations;
- Explain human relations and human resources approach;
- Describe the behavioural sciences approach;
- Elucidate the behaviour modification technique;
- Explain the importance of job satisfaction studies;
- Describe the steps in the process of Behaviour Modification;
- Relate the concepts in behaviour modification and the theory of Reinforcement to an organisational setting;
- Describe organisational change and its characteristics; and
- Analyse the application of behaviour modification techniques and principles to organisational change.

2.2 BEHAVIOURAL MANAGEMENT PROCESS

Organisational behaviour is an academic discipline concerned with describing, understanding, predicting, and controlling human behaviour in an organisational environment. The field is particularly concerned with group dynamics, how individuals

relate to and participate in groups, how leadership is exercised, how organisations function, and how change is effected in organisational settings. When organisational behaviour theory is directed specifically at ways in which management can control an organisation, it is sometimes known as *organisational behaviour management*, or OBM.

Organisational behaviour is a fairly new discipline, dating back to the early 20th century, although some experts suggest that it came into existence right after the U.S. Civil War. Organisational behaviour has evolved from early classical management theories into a complex school of thought, and it continues to change in response to the dynamic workforce in which today's businesses operate.

In 1911, Frederick W. Taylor's book, *Principles of Scientific Management*, was published. This book marked the first serious attempt to publish the results of scientific management studies aimed at motivating workers to produce more. They showed that workers could be motivated to produce more, especially if they were offered an incentive to do so.

The task concept centered around the idea that if managers planned workers' tasks at least one day in advance, production would increase. Taylor devised a differential piece-rate system based on two different rates of pay. His system was simple: workers who did less than the expected output received a low rate of pay. Those who exceeded the standard earned more money. That was a radical idea for the time. It separated the worker from the machine and indicated that employees could control how much they produced. Taylor also suggested in his approach that money motivated workers. This, too, was a unique idea. This approach became known as Theory X, and it would later be distinguished from other theories that took a different view of worker motivation and human nature. What Taylor did not do, however, was take into account group behaviour. He, like most classical managers, had no concept of the importance of workers as members of groups. The next wave of theorists, the human relations experts, addressed the issue of group behaviour.

2.2.1 Human Relations Approach

This aspect was considered by the human relationship group and experiments using this aspect was conducted and is famously known as Hawthorne experiments. The studies began in 1924 at the Hawthorne Works, part of the Western Electric Company, located in Cicero, Illinois. The researchers' original goal was to measure the effect of illumination on output. In simplified terms, what they actually learned was that an individual's work performance, position, and status in an organisation are determined not only by the individual, but by group members, too. They also learned that workers formed cliques that affected their production and that there were certain codes of conduct members of individual cliques were expected to follow. The Hawthorne studies opened the door to more experiments by other human relationists.

2.2.2 Human Resources Approach

The next group to take center stage in the organisational behaviour arena postulated that a manager's role was not to control workers, but to facilitate employee performance. According to human resources experts, people work to make a living, but their efforts go far beyond just labouring. They also work to fulfil certain needs, e.g., contributing to organisational objectives, attaining a feeling of accomplishment, and using their creativity in the work environment.

Managers were well advised to keep all these needs in mind when dealing with

workers. According to the human resources theorists, managers should apply mutual goal-setting and problem-solving approaches to their workforce members. Their approach has been termed Theory Y.

Managers were encouraged to make use of whatever training was necessary to ensure maximum performance. The training could take a variety of forms, i.e., technical, human, or conceptual. They were also advised to open communication lines in all directions to promote organisational effectiveness. After all, the theorists emphasised, workers welcome self-direction and self-control and will perform well when managers take an interest in their lives. In short, the human resources advocates said, managers should place their primary emphasis on using workers as if they are important human assets.

2.2.3 System Approach

Modern theorists apply a five-part system approach to organisational behaviour:

- the individual
- the formal organisation
- the informal organisation
- the fusion process, in which the first three modify and shape one another
- the physical environment

Each part is essential. None can exist alone in the system. This system approach is the basis for modern organisational theory, which is founded on behavioural science studies.

Self Assessment Questions 1

1) Define behavioural management process.

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2) What is human relations approach?

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3) What is human resources approach and how does it differ from human relations approach?

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4) Discuss systems approach to behavioural management process.

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2.3 THE BEHAVIOURAL SCIENCES APPROACH

There are three behavioural sciences:

- Psychology (the study of individual behaviour),
- Sociology (the study of social behaviour within societies, institutions, and groups), and
- Anthropology (the study of the origin, cultural development, and behaviour of humans).

Each has made important contributions to the study of organisational behaviour.

From an organisational standpoint, psychologists are concerned with the processes of learning, perception, and motivation.

Sociologists study the various organisations that compose society, e.g., political, legal, business, governmental, and religious bodies.

The anthropologists are interested in the impact of culture on behaviour.

The three disciplines have had a major impact on the study of organisational behaviour.

At the same time the Organisational behaviour scientists study four areas:

- individual behaviour,
- group behaviour,
- organisational structure, and
- organisational processes.

They investigate facets of these areas like personality and perception, attitudes and job satisfaction, group dynamics, politics and the role of leadership in the organisation. They study the job design, the impact of stress on work, decision making processes, the communications chain, and company cultures and climates. They use a variety of techniques and approaches to evaluate each facet and its impact on individuals, groups, and organisational efficiency and effectiveness.

In regard to individuals and groups, researchers try to ascertain why people behave the way they do. They have developed a variety of models designed to explain individuals' behaviour. They investigate the factors that influence personality development, including genetic, situational, environmental, cultural, and social factors.

Researchers also look at personality types such as authoritarian type of personality, the dogmatic type of personality etc. They try to find out what causes a person to form either type of personality and learn whether one or the other is a positive trait for people in the business world.

Researchers have also studied a number of concepts, including:

- Stereotyping: This is a process of categorizing people based on limited information
- Halo effect: Here persons use the known personal traits as the basis for an overall evaluation
- Perceptual defense: This is a process of screening out or distorting information that is disturbing or that people do not care to acknowledge
- Projection: In this, people attribute their own undesirable traits or characteristics to others.

They evaluate perception versus reality, individuals' locus of control and common problems resulting from these personality traits and characteristics. Finally, they look at an individual's attitudes and correlate them to job satisfaction and job performance.

2.3.1 Importance of Job Satisfaction Studies

The study of job satisfaction is central to organisational behavioural scientists. Companies want to know why their employees are or are not satisfied. If they are not happy, executives look to the behavioural scientists for ways to improve individuals' attitudes and to suggest ways of improving the work environment. This implies that the theorists have to look well beyond the tangible factors influencing job satisfaction, such as pay, benefits, promotional opportunities, and working conditions. They have to study how groups influence the workplace and individuals' expectations.

2.3.2 The Dynamics of Group Behaviour

Perhaps the most basic issue scholars have addressed in the area of group behaviour is the definition of "group." They have agreed that there is no one definition. Therefore, they have looked more at why people join groups, types of groups, and group activities and goals. Studies have focused on group norms, individuals' behaviour within groups and how it changed, their roles within groups, and what groups could accomplish that individuals could not. Many researchers believe that a group is more than the sum of the individual members, even though its goals, interactions, and performance are determined primarily by the individuals within it.

In an era when teamwork and collaboration figure prominently in many corporations' stated values, organisational behaviour theory suggests some models for how people work together well, and conversely, how collaboration breaks down. As in most social science theories, there is no exact formula for how people collaborate in a work environment, but there are some significant social and psychological dimensions that influence these behaviours. Many of them relate to communication styles and methods.

While electronic mail has been extolled as an important tool for efficient, speedy, and inexpensive communications, some evidence suggests that these do not help in group and individual interactions.

In another important area, organisational behaviour scientists draw a distinction between leadership and management. They define management as the process of accomplishing tasks, whereas leadership is the process of getting things done by influencing other people. Leaders who guide and direct and are successful entrepreneurs, have been found to possess certain qualities such as intelligence, dependability, responsibility, social activity, and high originality but there appear to be too many competing variables to form any universal conclusions of common leadership characteristics.

2.3.3 Power, Politics, and Conflict

Organisational behaviour scientists have identified five basic types of power managers and leaders and these types of power are: (i) reward power (ii) coercive power (iii) legitimate power (iv) referent power and (v) expert power.

- i) Reward power, which is based on an individual's expectation of receiving desired outcomes, was found to be a positive force. However if these rewards do not come about the workers may not work or cooperate.
- ii) Managers who rely on coercive power, which is based on fear, will probably be unable to influence workers, especially group members, for a long period of time.
- iii) Legitimate power, which exists as part of a manager's position in the hierarchy, is often ignored by workers who do not respect the individual filling the role.
- iv) Referent power, which is based on the manager's charisma, influences only those individuals or group members who are swayed by the charismatic leader.
- v) Finally, expert power, which is the power acquired from experience and learning, is a positive force, but only to the degree managers can convince individuals and group members that their leadership skills go beyond expertise alone.

People attempting to exercise power in the organisation often resort to political tactics to do so. They blame others for mistakes, form power coalitions, praise co-workers and subordinates when they think it will help them achieve goals and reinforce their images. In short, they use every stratagem possible to win friends and influence people. In the process, however, they often create conflict. This prompted researchers to study conflict and its possible solutions.

Organisational behaviour scientists recognise that conflict exists at both individual and group levels. They have devised a number of ways to deal with it. Among them are mutual problem solving, compromise, and avoidance.

2.3.4 Organisational Design and Processes

Organisational behaviour scientists have conducted extensive studies on job definitions and job specifications. They have looked at how each job fit into different groups within the organisation, a process called departmentalisation. Researchers have studied the number of people an individual manager can manage most effectively. For this the researchers reduced the tasks to its basic level and then tried to find ways to perform jobs more efficiently and effectively.

Many researchers have suggested viable ways that organisations could restructure jobs and relationships to stimulate job satisfaction and productivity simultaneously. They have devised better communications programs, identified the elements that create stress, and explained how it could be better managed.

Organisational behaviour scientists also try to improve the climate of the workplace. They have sought ways to include more people in the managerial and decision-making processes. Their suggestions have included such techniques as quality circles and participative management programs.

Quality circles are team approaches to identify and resolve work related problems. Participative management also give wider variety of people opportunities to comment on and implement new ideas in the workplace.

One prominent organisational behaviour scientist, William Ouchi, recommended that

American companies integrate more Japanese management concepts into their management practices. His approach became known as Theory Z.

The ideas promulgated by organisational behaviour scientists have caught on in managerial circles. Of course not all of the programs can be used by all companies, but it is that no two companies are alike and hence to compensate for the dissimilarities, behavioural scientists reformed detailed cultural profiles to determine which programmes fit individual company's needs. These profiles have illustrated the importance of culture in the field of organisational behaviour., in that how company cultures can control individual and group behaviour, promote innovation, foster personnel commitment, etc.

2.4 ORGANISATIONAL CHANGE

Another subject of special interest to organisational behaviour scholars is how change affects people in an organisation and how the process of change can be managed to maximise its success and minimise unintended disruptions. Change is compelled by many sources, viz., social and demographic trends, economic cycles, competition, technology, and politics and regulation, to name a few.

Scholars distinguish between change that is incremental and ongoing and change that is radical and episodic. The former is called the first order change and the latter termed second order change. While each form can have both positive and negative consequences, radical changes are commonly seen as requiring the most caution and skill at pulling off.

Researchers have found that downsizing can have both positive and negative effects on the employees who stay on. In some cases, for example, layoffs can induce employees to work harder and engage in other behaviours that benefit the company. One obvious explanation is that these workers might fear losing their jobs if they do not improve their performance, but there are likely other reasons as well, such as a move to fill a performance vacuum left by the departing workers. Still, other workers may respond by diminishing their performance; they may be demoralised by the corporate policies and may lower their mental and emotional investment in their jobs.

Behavioural scientists have suggested that the way in which the company goes about managing the change can have a significant effect on how employees react. This is not to say all negative reactions can be eliminated, but that there is a good chance they can be reduced. For instance, in downsizing in a company, being open and communicative and demonstrating actions that foster trust in the management can reduce some of the negative shocks of massive organisational change. Similar principles apply to managing other forms of organisational change.

Psychologist Kurt Lewin and others have identified basic models for managing change in organisations. Lewin put forward a three step process (i) unfreeze the status quo in the organisation, (ii) facilitate a move to a new set of practices or environment, and then (iii) solidify or “refreeze” the new practices or environment into a permanent state.

The unfreezing process involves introducing new policies or initiatives that begin to actively move employees away from the old ways of doing things. The move to a new set of practices, which is the second step, is the formal implementation of the changes, for example, reorganising a division or closing a branch office. The process of refreezing requires that the management must solidify the changes by ensuring all the policies and practices are now geared toward maintaining the new equilibrium.

2.4.1 The Future of Organisational Behaviour

Today, organisational behaviour scientists are dealing with a wide range of problems confronting the business world. For instance, they continue to study downsizing, career development in the global economy, social issues such as substance abuse and changes in family composition, and the global economy. They are trying to determine just what effects such factors are having on the workplace and what can be done to alleviate associated problems.

Furthermore, the international economy has also taken on added importance in organisational behaviour circles in recent years, as international companies have special requirements and dynamics to contend with. Researchers currently are studying the following areas more bvigorously:

- i) communications between and among foreign business operations,
- ii) cultural differences and their impact on individuals,
- iii) language difficulties,
- iv) motivation techniques in different cultures, as well as
- v) the differences in leadership and decision-making practices from country to country.

Self Assessment Questions 2

1) What is the role of behavioural sciences in management?

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2) Why are Job satisfaction studies important for management process?

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3) Discuss the dynamics of group behaviour in terms of management processes.

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4) How do power, polcies and conflict affect the management process?

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5) Discuss organisational change and its future in terms of the management processes.

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2.5 ROLE AND FUNCTIONS OF MANAGERS

Before we proceed with the behaviour modification to be applied to organisations, it is important to list out the various functions and roles of managers and how these functions are important for management processes. In what ways these get affected and how the behaviour modification approach would help in this regard.

There are 10 roles common to the work of managers and these are divided into three groups, viz., interpersonal, informational and decisional.

The 10 roles though are separately given are in a way integrated. Under the interpersonal roles we find the following:

- 1) Manager as figurehead
- 2) Manager as leader
- 3) Manager as liaison

Under informational roles we have the following:

- 1) Manager as monitor
- 2) Manager as disseminator
- 3) Manager as spokesperson

Under decisional roles we have the following:

- 1) Manager as entrepreneur
- 2) Manager as disturbance handler and manager as resource allocator
- 3) Manager as negotiator
- 4) Manager's basic purposes.

The main functions of a manager are:

- 1) Planning
- 2) Organising
- 3) Leading
- 4) Controlling

2.5.1 Planning

Planning is the ongoing process of developing the business' mission and objectives and determining how they will be accomplished.

Planning is the logical thinking through goals and making the decision as to what needs to be accomplished in order to reach the organisation's objectives. Using this the managers plan for the future, foresee problems, decide actions to overcome difficult issues and beat the competition.

Planning requires a review of (i) the previous period and the current and future environmental factors (ii) conducting internal SWOT analysis (iii) setting up guidelines, objectives and strategies. Plans help to give direction, achieve a purpose, provides a set of business drivers and sets up issues to tackle to solve problems.

2.5.2 Organising

Organising is establishing the internal organisational structure of the organisation. The focus is on division, coordination, and control of tasks and the flow of information within the organisation. It is in this function that managers distribute authority to job holders. It is the manager's duty to fill and keep filled the staff with qualified persons in all positions. Recruitment, hiring of personnel, training the staff and evaluating and rewarding are specific activities included in the function. For this, the structuring of the work of the organisation is vital. Staffing the work division, setting up the training for the employees, acquiring the resources and organising the work group into a productive team are all part of this structuring. In addition the manager must recognise and correct situations that need improvement, originate new approaches to problems, encourage their people to try out new ideas, and should be able to face up to many unexpected situations that may arise from time to time. In addition the manager must delegate the responsibility and authority effectively. Without trespassing on authority once delegated, they must periodically check the performance of delegated duties. Encourage people to take decisions, inspire them to work towards the stipulated goals, generate a sense of belongingness, make decisions promptly but not hastily.

2.5.3 Leading

This refers to influencing people's behaviour through motivation, communication, group dynamics, leadership and discipline. The purpose of leading is to channel the behaviour of all personnel to accomplish the organisation's mission and objectives while simultaneously helping them accomplish their own career objectives. Leadership is the power of persuasion of one person over others to inspire actions towards achieving the goals of the company. The manager as a leader should be able to motivate workers to an elevated goal and direct themselves to the duties or responsibilities assigned during the planning process. To be effective, they must set up a system of giving direction to the staff, get feedback from the staff, have regular weekly review meetings, have a motivational programme for recognition and rewards for staff. The manager must have excellent communication with the staff and have a congenial relationship so that people enjoy their work. At the same time the employees should be able to approach the manager and share problems so that the same is resolved in the interest of the employee and the organisation.

Manager should be a good listener as only by listening attentively one could spot the troubles. Also it gives the workers confidence that their view points are listened to and they get all the more motivated to work. Listening enables a manager to respond

to the needs of his people and such responses are essential to good leadership because everyone is at times troubled. Everyone wants recognition, sympathy, praise, interest without intrusion. A good leader is liked because he is really interested.

2.5.4 Controlling

This is a four step process of establishing performance standards based on the firm's objectives, measuring and reporting actual performance, comparing the two, and taking corrective or preventive action as necessary.

2.6 ORGANISATIONAL APPLICATIONS OF BEHAVIOUR MODIFICATION

Studying how groups of people or individuals themselves interact within larger systems or an "organisation" is called organisational behaviour. Behavioural modification strategies within an organisational context are concerned with implementing behaviours within large business to accomplish a main objective.

2.6.1 Organisational Culture

An organisational culture is the sum total of working values, beliefs, expectations and attitudes shared by everyone participating within an organisation. Organisational culture begins when policies, guidelines and expectations on how to behave is adopted on an individual level. Getting employees to accept and eventually internalise rules and guidelines requires implementing strategies such as "emotional labour."

2.6.2 Emotional Labour

Emotional labour involves requiring employees to exert gestures and emotions beyond natural effort, hence the term labour. For example, in addition to requiring employees to be attentive to a customer's needs at all times, requiring them to display the actual emotion of being eagerly attentive to a maximum pitch is emotional labour.

2.6.3 Professional Ethos

Other organisational behaviour modification strategies also involve implementing an expectation of professionalism; for example, requiring employees to maintain a highly groomed appearance and encouraging an employee to meet deadlines are part of the professional ethos.

2.6.4 Positive Reinforcement

Behaviour modification strategies addressing motivational topics involve positive reinforcement. Positive reinforcement is concerned with providing rewards to encourage performance. Moreover, positive reinforcement strategies are often implemented in work environments where jobs tend to involve routine tasks.

2.6.5 Fear Driven Model

The fear-driven model as an organisational behaviour modification strategy involves promoting compliance to guidelines and policies with fear of punishment. Common examples include fostering a looming and chronic sense of fear of losing your job if certain expectations are not met.

The understanding of OBMod is relatively old, and very powerful yet it is seemingly under utilised, or more often, done incorrectly. What is very clear is that it should

be done scientifically and quantitatively, and not in an ad hoc manner. An example of bad attempts at promoting behaviour is the initial training of the estate agents (outlined above), where little emphasis was placed on defining and maintaining the desired behaviours.

What is crucial is that the behaviour is correctly defined and presented in a measurable manner. Furthermore, organisations should work on the idea that employees want to please, a fact, when fully accepted, will remove aversive management and, for example, promote feedback and variably reinforced praise.

A negative issue raised in both examples was that the program was not specifically geared towards dealing with underachievers, which meant that they were commonly left out. Had the programs provided more encouragement, there would have been a better reaction, as they too don't want to be left out (social conformity being the main driver in this situation).

Furthermore, management should not use OBMod to counter more fundamental issues, such as understaffing – if the cleaners in the first example were constantly out of breath, yet meeting their required 90% cleanliness quota, isn't that a sign of understaffing?

The final issue is that the subjects need to be aware of the situation, and also want to change; a more covert process would not be as effective, and moral issues are raised.

Organisations can correct problems related to technology or lack of the necessary skill sets in employees easily. But correcting behaviours is far more complex. This makes the role of the OB practitioner more important. Positive behaviours need to be strengthened and negative behaviours that detract from performance should be minimised or eliminated. This is where OB Mod comes in.

Self Assessment Questions 3

1) What are the roles and functions of a manager?

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2) Discuss application of behaviour modification techniques in an organisation.

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3) How is organisational culture to be used in behaviour modification technique in an organisation?

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4) Define emotional labour and discuss this aspect in terms of behaviour modification approach applied to an organisation.

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5) What is fear driven model? How can this be used to overcome some of the negative aspects of the workers in an organisation?

2.7 STEPS IN BEHAVIOURAL MANAGEMENT

There are five steps in Behavioural Management. These are described below:

2.7.1 Identifying Critical Behaviours

The first step is to identify critical behaviours. Employees perform a variety of tasks within the framework of their jobs. However, all the tasks they perform are not of equal importance. Some tasks have a greater bearing on overall performance than others. It is generally thought that between 5 and 10 percent of an employee's behaviours account for around 70 to 80 percent of his overall job performance.

These behaviours are therefore the critical behaviours which impact the employee's overall effectiveness. For example, the critical behaviours in a salesperson's job relate to his ability to reach out to and influence people. Everything else that he does in his job is more or less incidental.

OB practitioners used different methods to identify critical behaviours.

- 1) One of the most commonly used methods is to ask the person closest to the job under study to identify the most important elements of the job. This could be the person currently holding that job, or his immediate superior. The idea behind this is that, the people closest to the job have the best understanding of what determines overall performance.
- 2) Another method involves conducting a behavioural audit. Under this approach, all the jobs within a department or an organisation are systematically analysed by either the company's own HR department or by outside consultants. The main advantage of this method is the availability of specialist advice. However, the input of the person closet to the job is given a lot of importance.

Regardless of the method used, it is vital for the OB practitioner to keep in mind that only *direct performance behaviours* are measured for their criticality.

Direct performance measures are the behaviours that directly impact job performance. For instance, absenteeism, maintenance of time, etc., are behaviours that have a direct impact on the job performance of many kinds of workers. These should be taken into account.

However, aspects like bad attitude and personal beliefs are usually not directly linked to job performance, so these are not measured. In other words, only those behaviours that directly affect the quantity or quality of work should be taken into account.

It is also important that the behaviour that is being considered is *measurable*. Aspects like attitude cannot be directly measured, whereas absenteeism can be measured using employee records.

2.7.2 Measuring the Behaviour

After the critical behaviours have been identified, it is important for the OB practitioner to *develop some baseline performance data* to identify the number of times that the identified behaviour is occurring under present conditions. For instance, if a sales manager feels that a person in his sales team never goes out in the market to meet clients, it is important to measure the actual number of times that the sales person has actually gone out within a specific time frame.

This measurement plays a critical role in identifying the magnitude of the problem. Sometimes, the problem may seem much more serious than what is actually it or vice versa. Scientific measurement will help determine whether the problem is serious enough to require behavioural intervention or not.

Staying with the same example, if after measuring the number of times the sales person has actually gone out to meet clients, the OB practitioner arrives at an above average figure; he may decide that intervention is not actually necessary. The fact that the sales manager feels that the sales person does not go out enough could have arisen from factors like prejudice or erroneous perception.

On the other hand, sometimes the opposite can also be true. A problem may seem trivial initially, but the baseline measure could yield results that show that it is much more serious than it seems.

The baseline data also serves as a point of reference after the intervention has been implemented to check whether an improvement has actually occurred or not.

2.7.3 Identifying Behavioural Consequences

The third step in OB Mod is to perform a functional analysis to identify the antecedents and consequences of the behaviour under study or the target behaviour. This is called the A-B-C analysis, referring to antecedents, behaviours and consequences respectively.

The functional analysis primarily attempts to understand the reason why a person has adopted certain behaviour, the factors or consequences that are causing the maintenance of that behaviour.

For example, in an organisation where employees are required to fill in regular timesheets, if it is found that most of the employees are not filling them regularly, this avoidance of filling the timesheets is the target behaviour for intervention.

The *reason* why employees are not filling them is the antecedent (it could be that the timesheets are too complicated to fill, or the process may be too time consuming).

The consequences that maintain this behaviour could be availability of the time that would otherwise have been devoted to filling timesheets and avoidance of a dull and boring task.

This step brings out the problem solving nature of the OB Mod approach. It is of utmost importance in the organisational context as it is vital for the practitioner to understand both the antecedents and the contingent consequences of a behaviour before he can attempt an intervention.

2.7.4 Intervention Strategy

The intervention stage is the final action step in the OB Mod process. The final objective at this stage is to strengthen and accelerate functional behaviours and/or weaken and decelerate dysfunctional behaviours. Reinforcement plays an important role at this stage. The two main reinforcement-based strategies used for intervention are (i) positive reinforcement and (ii) punishment-positive reinforcement.

- i) **Positive Reinforcement:** In this the person is encouraged to behave in a certain way to receive the desired consequences. It is a positive control of behaviour. It is generally thought that positive reinforcement is more effective and long lasting as it impacts employees in a healthier manner.

Negative reinforcement, that is, encouraging employees to do something to avoid an unpleasant consequence is not preferred because of the negative impact it can have on organisational culture.

Different kinds of things can be used as positive reinforcers. Generally, money is thought to be the most powerful positive reinforcer, but social reinforcers like attention and recognition can also be used effectively.

- ii) **Punishment-positive reinforcement:** Although positive reinforcement plays an important role in encouraging the adoption of desirable behaviours, sometimes punishment is also necessary to weaken and eliminate undesirable behaviours. However, OB practitioners believe that using punishment alone in behaviour modification can have negative repercussions. For instance, punishment creates negative feelings and tension in people and may cause a strengthening of the undesirable behaviour due to rebelliousness.

Otherwise, it may cause a temporary suspension of the negative behaviour. Like if a supervisor reprimands an employee for not being attentive to the job, the employee may start being attentive whenever the supervisor is around and revert back to inattentiveness when the supervisor leaves.

Therefore, it is important to use a combination of punishment and positive reinforcement. If undesirable behaviour is being punished, the supervisor must take the first available opportunity to positively reinforce the display of the desirable behaviours. This will lead to the employee slowly replacing dysfunctional behaviours with functional behaviours.

2.7.5 Evaluating Performance Improvement

Evaluating an intervention is a means to determine whether the intervention has been effective or not. There are four levels of evaluation. (i) Reaction (ii) Learning (iii) Behavioural change (iv) Performance improvement. Let us see in detail each of these factors.

- i) **Reaction:** Reaction measures whether the people using the intervention and those having it used on them like it or not. A positive reaction means that there is a greater chance of the intervention being successful. A positive reaction to a particular intervention can also act as a base for developing future interventions on the same lines.
- ii) **Learning:** Learning refers to the extent to which people who are using the intervention understand it. It is important for the implementers of an intervention to know the model they are using and how it is expected to impact their organisation.
- iii) **Behavioural change:** This level deals with understanding whether the critical behaviours have actually changed and the extent to which they have been changed. The baseline performance data derived at step two acts as a point of reference in measure behavioural change.
- iv) **Performance improvement:** This is the final goal of any intervention, because all behaviour changes are aimed at improving some aspect of organisational performance or effectiveness.

Performance improvement can be measured through a study of productivity, customer complaints, employee grievances, quality improvement, etc. Scientific methods are used to measure actual performance improvements as a result of an OB Mod intervention.

Self Assessment Questions 4

1) Discuss in detail each of the steps in behavioural management.

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2) What are the ways in which one can identify behavioural consequences?

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3) Discuss evaluating performance improvement due to behavioural intervention.

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2.8 APPLICATION OF OB MOD AND THE THEORY OF REINFORCEMENT IN ORGANISATIONS

Some areas in which OB Mod has been and can be effectively used in organisations are as follows:

2.8.1 Improving Employee Productivity

Performance management is one of the areas in which OB Mod interventions are frequently used. Performance and organisational effectiveness in the ultimate goal of all organisations and behavioural management can help them achieve this goal. Besides, performance can be quantified and managed; therefore OB Mod can be used extensively in improving employee productivity.

2.8.2 Increasing Employee Discipline

OB Mod interventions have also been used in dealing with employee discipline issues such as absenteeism and tardiness. Most managers have to contend with discipline issues at one time or another. It has also been observed that managers generally use punishment techniques to deal with indiscipline. As we have discussed in this chapter, punishment is not the best way to deal with dysfunctional behaviours. By using OB Mod techniques organisations can develop a model based on the punishment-positive reinforcement theory to deal with discipline issues.

One instance of handling the absenteeism issue is the concept of ‘well pay’ versus ‘sick pay’. Most organisations grant employees sick pay as a part of their benefits programme. Studies have found that employees tend to use their paid sick leave whether they actually need it or not. However, some organisations have adopted the concept of ‘well pay’, under which they reward employees through cash bonuses or other perks for having perfect attendance. Such organisations have found that the utilisation of sick leave is considerably lower among their employees. This is an example of positive reinforcement to encourage functional behaviour.

2.8.3 Enhancing Safety

Safety is a critical issue in many organisations, especially in manufacturing concerns. OB Mod can be used to identify safety hazards and encourage employees to adopt safe behaviours. For instance, employees in the construction industry need to wear hard hats during work. This behaviour can be encouraged by setting up a reinforcement mechanism. For instance, some companies give out cash awards to employees who remain accident free in hazardous occupations. Companies can also set up safety goals for a specific period and reward employees for working towards achieving those goals.

2.8.4 Developing Training Programmes

OB Mod lends itself well to the development of training programmes. Because performance and other critical variables are measured in the process of OB Mod, it becomes easy for managers to identify shortcomings and develop programmes to help employees reach the required skill level. By using OB Mod techniques, managers can identify the behaviours needed to optimize performance, provide employees with the opportunities to practice the new behaviours and reinforce achievements.

2.8.5 Self Management

In addition to being of help to managers in modifying the behaviour of their employees, OB Mod can also be used to allow an individual to manage his own behaviour. This is called self management. Self management is all the more important in light of modern performance appraisal systems which expect a person to monitor and be responsible for his own organisational performance. Using OB Mod, an individual can identify the behaviours that need to be improved for him to optimize his performance.

2.9 LET US SUM UP

In this unit we have discussed the concept of Behaviour Management and the steps in the OB Mod process. The section that details the application of behaviour management is proof to the efficacy of the theories of learning and their applications within an organisational context.

2.10 UNIT END QUESTIONS

- 1) What is behavioural management process? Discuss the different approaches to the same
- 2) What are the significant features of behavioural sciences approach?
- 3) What are the features of organisational change? Discuss the future of organisational behaviour.
- 4) Discuss critically the organisational application of behaviour modification
- 5) Discuss the various steps involved in behavioural management
- 6) What are the areas in which organisational behaviour modification could be applied so that improvement could be obtained?
- 7) Encapsulate the main steps in the OB Mod process
- 8) Relate the steps in OB modification process to different situations in the organisations.

2.11 GLOSSARY

Direct performance behaviour :	Behaviour that directly impacts job performance like absenteeism, maintenance of time etc.
Baseline performance :	The number of times the identified behaviour is occurring under a particular condition serves as a point of comparison.
Functional analysis :	Identifying the antecedence and consequences of the behaviour under study.
Self management :	A person manages and is responsible for his own organisational performance.

2.12 SUGGESTED READINGS

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UNIT 3 WORK STRESS AND JOB SATISFACTION

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 Definition and Meaning of Stress
 - 3.2.1 Stress, Anxiety and Tension
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 - 3.9.1 Job Satisfaction and Productivity
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- 3.14 Suggested Readings

3.0 INTRODUCTION

With the business environment becoming more competitive by the day, placing greater demands on organisations and their employees, it becomes important for managers to understand the concept of work stress and learn how to deal with it. In this unit

we will discuss the meaning of work stress, identify the causes of work stress and learn about the impact on stress on organisational outcomes. This unit starts with definition and meaning of stress and indicates the various factors that contribute to stress. Stress is felt by everyone in any situation however stress in worklife is different and this unit will tell you about stress in workplace and consequences of such stress on the physical and mental health of of an individual. The unit also presents the various methods to manage work stress. The next section in this unit deals with job satisfaction as related to work situation and how job satisfaction could be measured.

3.1 OBJECTIVES

After reading this unit, you will be able to:

- Define stress and stress in organisations.
- List out the causes and consequences of work stress;
- Describe how to manage work stress in organisations;
- Understand the definition and meaning of job satisfaction;
- Delineate the Factors influencing job satisfaction; and
- Analyse the impact of job satisfaction on work outcomes.

3.2 DEFINITION AND MEANING OF STRESS

Stephen Robbins defines stress as “A dynamic condition in which an individual is confronted with an opportunity or demand related to what he or she desires and for which the outcome is perceived to be both uncertain and important.” In simple words, stress may be defined as anything that disrupts or disturbs a normal person’s sense of equilibrium and well being. A student preparing for an important exam faces stress. A manager trying to make profits in a competitive market faces stress.

Although stress is generally discussed in a negative context, it is not always bad. It can be positive or negative depending on the circumstances and more importantly how the person deals with it. Stress originates from what is called a ‘stressor’. A stressor is the factor that creates or is the cause of stress in an individual. It is not in itself either positive or negative. How the individual chooses to deal with the stressor determines whether the stress is positive (called eustress) or negative (called distress).

For example, for a manager trying to make profits in a competitive market, the primary stressor would be the competition. If the manager gets intimidated or anxious and gives up, he is dealing with stress negatively. On the other hand, if he decides to work harder and develop strategies to overcome competition, the stress is actually having a positive impact on him. From this we can understand that stress can also be a ‘motivator’. There are instances when people actually perform better during times of stress. This is because they are able to harness stress positively to improve outcomes.

A Stressor can cause actual stress under two conditions, viz.,

- i) There must be uncertainty over the outcome
- ii) The outcome must be important to the individual

If the outcome is predetermined, there is no cause for stress. Also, if the individual is indifferent to the outcome, there is no stress.

3.2.1 Stress, Anxiety and Tension

Stress is a mentally or emotionally disruptive or upsetting condition occurring in response to adverse external influences and capable of affecting physical health. It is usually characterised by increased heart rate, a rise in blood pressure, muscular tension, irritability, and depression. This is caused by a stimulus or a circumstance of extreme difficulty, pressure or nervous strain. In psychology, a state of bodily or mental tension resulting from factors that tend to alter an existent equilibrium.

Stress is an unavoidable effect of living and is an especially complex phenomenon in modern technological society. It has been linked to **coronary heart disease**, **psychosomatic disorders**, and various other mental and physical problems. Treatment usually consists of a combination of **counselling** or **psychotherapy** and medication. Stress can come from any situation or thought that makes a person feel frustrated, angry, or anxious. What is stressful to one person is not necessarily stressful to another.

Tension on the other hand is a mental, emotional, or nervous strain. To give an example in our normal day to day conversation we say that some one is working under great tension to make a deadline. It is a state of mental or emotional strain or suspense. This may lead to fatigue and exhaustion leading to a certain degree of reduction in efficiency level.

Anxiety is a feeling of apprehension or fear. The source of this uneasiness is not always known or recognised, which can add to the distress one may feel.

From psychology point of view, anxiety is a feeling of dread, fear, or apprehension, often with no clear justification. Anxiety is distinguished from fear because the latter arises in response to a clear and actual danger, such as one affecting a person's physical safety. Anxiety, by contrast, arises in response to apparently innocuous situations or is the product of subjective, internal emotional conflicts the causes of which may not be apparent to the person himself. Some anxiety inevitably arises in the course of daily life and is considered normal. But persistent, intense, chronic, or recurring anxiety not justified in response to real-life stresses is usually regarded as abnormal and needs consultation with a psychiatrist.

3.3 STRESS

Stress is a normal part of life. In small quantities, stress is good. It can motivate a person and help the person to be more productive. However, too much stress, or a strong response to stress, is harmful. It can lead the person to poor health condition as well as specific physical or psychological illnesses like infection, heart disease, or depression. Persistent and unrelenting stress often leads to anxiety and unhealthy behaviours like overeating and abuse of alcohol or drugs.

Emotional states like grief or depression and health conditions like an overactive thyroid, low blood sugar, or heart attack can also cause stress.

Anxiety is often accompanied by physical symptoms, including twitching or trembling, in addition to the following:

- Muscle tension, headaches
- Sweating

- Dry mouth, difficulty swallowing
- Abdominal pain (may be the only symptom of stress, especially in a child)

Sometimes other symptoms as given below may accompany anxiety:

- Dizziness
- Rapid or irregular heart rate
- Rapid breathing
- Diarrhea or frequent need to urinate
- Fatigue
- Irritability, including loss of your temper
- Sleeping difficulties and nightmares
- Decreased concentration
- Sexual problems

When anxiety becomes crippling and does not allow the individual to carry on his or her routine work, then this anxiety is considered abnormal and may even be diagnosed as anxiety disorder. Anxiety disorders are a group of psychiatric conditions that involve excessive anxiety. They include generalised anxiety disorder, specific phobias, obsessive-compulsive disorder, and social phobia.

Stress should also be differentiated from anxiety and nervous tension. Anxiety and nervous tension are usually the manifestations or outcome of stress, but stress goes beyond these two concepts. In the high- pressured, dangerous world we live in today, it is difficult to escape feelings of acute tension, stress and anxiety that frequently lead to panic attacks. Stress victims are to be found in every walk of life.

If a person often feels stressed, extremely anxious and unable to cope, it may be due to a variety of different reasons. Whatever the reason it is important for the person to recognise that severe stress could be harmful to the person's health.

Stress is regarded by medical science as one of the most important contributory factors in many illnesses.

Hypertension, high blood pressure, heart attacks, asthma, skin disorders, stomach ulcers, rheumatoid arthritis and many other medical problems are all believed to be directly related to stress.

Stress in a person may be due to money problems, family disagreements, unhappiness in the person's home, unpleasant conditions at work, concerns about the welfare of one's children, uncertainty about one's future or a wide range of different fears, viz., some real, some exaggerated and some imagined.

It makes no difference whether a person's fear is real or imagined, but the mental suffering from self induced stress can be just as harmful to the individual's health.

When a person has been under stress for some time, it often results in a condition known as "panic disorder". It is a condition that is becoming increasingly common. "Panic disorder" is described as a psychiatric condition that brings about recurrent waves of panic that sometimes persist for lengthy periods.

It is an emotional state accompanied by feelings of dread that something terrible is about to happen. People who suffer from these panic attacks are sometimes fearful of getting on a bus, or entering a strange house, or even going to a supermarket. These panic attacks can occur without warning. They are often unrelated to a specific incident or event.

Very often these feelings of panic are accompanied by alarming physical symptoms such as dizziness, tightness in the chest or the throat, shortness of breath, a racing pulse, or hot flushes.

It is not uncommon for people suffering from a panic attack to be convinced that they are having a heart attack. They rush to the nearest hospital or immediately contact their physician for emergency treatment. Examination of their condition very often reveals that there is no indication of any heart problem whatsoever. The symptoms they are suffering from have been brought about by a panic attack. In emergency wards at hospitals this is a fairly frequent occurrence.

It is very important however, to warn against the danger of being too casual and ignore symptoms that resemble a genuine heart attack. One should not ever assume a panic attack is the cause of the problem.

If a person is in the company of anyone who complains of severe chest pains, every effort should be put in to get qualified medical help immediately. Such symptoms should not be disregarded and presumed to be probably due to a panic attack. There is a chance that such thinking may be completely mistaken. The person should be rushed to medical help and only after the doctor has declared that there is no heart attack etc., one may consider psychological causes as factors contributing to the symptoms.

Doctors are seeing more and more cases, these days, of people suffering from symptoms of severe stress, nervous tension, extreme anxiety and panic attacks. The most common form of treatment is to prescribe tranquilizers.

Tranquilizers, as an emergency form of treatment, when prescribed by suitably qualified doctors, can be effective in relieving stress. But there are always disadvantages in their use. There are often side effects. Sometimes these side effects can be very serious indeed. There is also always the danger of addiction.

A large number of people, suffering from panic attacks and conditions of severe stress, have moved away from conventional medical treatment. They are unhappy with tranquilizers. They turn to various forms of alternative medicine for treatment and have been fairly satisfied with the results achieved.

One method of treatment for stress, that has received wide recognition and a great deal of favourable publicity, because of the positive results obtained, is meditation. There are certain forms of meditation that have proved remarkably effective in relieving stress.

3.4 CAUSES OF STRESS

Stress can be caused by many factors. They can be broadly classified as (i) individual factors (ii) Group factors and (iii) Organisational factors. Let us deal with each of these in detail.

3.4.1 Individual Factors

People are affected by several factors like inherent personality traits, personal economic conditions, and social and family issues.

Studies have shown that people with certain personality traits are more prone to stress than others. For instance, it is thought that people with a Type A personality are more stressed than people with Type B personality (Activity given in the box below to check your personality type). Studies have indicated that more than 60 percent of managers tend to be Type A personalities.

Other components of personality such as rigidity, authoritarianism, risk tolerance, tolerance for ambiguity, emotionality, anxiety, extroversion, spontaneity and supportiveness also determine the stress that a person might face and how he would cope with it. The concept of ‘personal control’ also has a bearing on stress in individuals. For instance, employees who perceive a high amount of personal control over the aspects of their jobs and their outcomes are less stressed than employees who feel that they have no control over their work.

Personal economic issues such as poor money management, debts, and other financial aspects are also important sources of stress in individuals. In addition to this, people who have a stable family life and social interests are thought to be better equipped to cope with stress than people who face constant upheavals in their lives. Persons having social support is less prone to stress as compared to the one who does not have such social support.

Box: Activity for the student

Determine your profile, whether you are a type A or type B personality. Given below are some statements, and the points are indicated against each statement. You have to circle the one that is most applicable to you. Then add up the score points and then multiply by 3. That is your score. Based on that score find out your personality.

- | | | |
|---|-----------------|--|
| 1. Am casual about appointments | 1 2 3 4 5 6 7 8 | Am never late |
| 2. Am not competitive | 1 2 3 4 5 6 7 8 | Am very competitive |
| 3. Never feel rushed, even under Pressure | 1 2 3 4 5 6 7 8 | Always feel rushed |
| 4. Take things one at a time | 1 2 3 4 5 6 7 8 | Try to do many things at once; Think about what I am going to do next. |
| 5. Do things slowly | 1 2 3 4 5 6 7 8 | Do things fast (eating, walking etc.) |
| 6. Express feelings | 1 2 3 4 5 6 7 8 | “Sit” on feelings |
| 7. Have many interests | 1 2 3 4 5 6 7 8 | Have few interests outside work |

Total your score _____ Multiply by 3 _____.

The interpretation of your score is as given below:

Number of points	Type of personality
Less than 90	B
90-99	B+
100 – 105	A-
106 – 119	A
120 or more	A+

3.4.2 Group Factors

The elements of a group can also play an important role in causing work stress. Group stress is mainly caused by two factors, viz., (i) lack of cohesiveness and (ii) lack of social support. A group that lacks cohesiveness is dysfunctional, and causes stress in the people who are a part of it because of the tension that may exist between the different members of the group. Especially in teams that have to work together for the accomplishment of goals, lack of cohesiveness can be a very big stress factor.

Lack of social support also causes stress as human beings are social by nature. When they are denied an opportunity to interact with other members of the group and share their feelings and opinions with them, they tend to feel isolated and stressed. It is therefore important for managers to provide opportunities within the organisation for social interaction.

3.4.3 Organisational Factors

Organisational Factors: An organisation is a grouping of assets, goals, strategies, and policies. In order to create groups to work, organisations generate structure, process and working conditions. In modern organisations, number of factors generates an environment of stress. The altering environmental dynamics, globalisation, organisational adjustments like mergers and acquisitions directs towards stress. A number of in-house organisational factors cause worker a stress.

Some of the factors are deprived of good working conditions, strained labour management relations, disputed resource allocations, co-employee behaviour, organisational design and policies, unpleasant leadership styles of the boss, misunderstandings in organisational communication, bureaucratic controls, improper motivation, job dissatisfaction, and less attention to merit and seniority. Some of the organisational stressors in are given below:

- i) **Working Conditions:** Working situation and stress are inversely connected to each other. People working in meager working conditions are subject to greater stress. The factors that lead to additional stress are occupied work areas, dust, heat, noise, polluted air, strong odor due to toxic chemicals, radiation, poor ventilation, unsafe and dangerous conditions, lack of privacy etc.
- ii) **Organisational Tasks:** Organisational tasks are planned to assemble the objectives and goals. Badly designed tasks lead to bigger stress. Task independence, task inter-dependency, task demands, task overload are some of the possible reasons for stress in organisations. Greater the assignment interdependence, greater is the organisation required. This needs the workers to

adjust themselves with the co workers, superiors, and subordinates, irrespective of their eagerness. They are likely to communicate, coordinate, exchange views, with other people irrespective of caste, creed, gender, religion and political differences. The main reason for the degree of stress is adjustment and poor tolerance.

- iii) **Administrative Policies and Strategies:** Workers stress is linked with definite administrative strategies followed by the organisations. Down sizing, competing pressure, unfair pay structures, rigidity in rules, job rotation and ambiguous policies are some of the reasons for stress in organisations.
- iv) **Organisational Structure and Design:** Organisational structure is planned to smooth the progress of person's communication in the realisation of organisational goals. Some of the aspects of design are specialisation, centralisation, line and staff relationships, span of control, and organisational communication can relentlessly create stress in organisations. For example, wider span of management compels the executive to manage large number of subordinates. This can lead to bigger stress. Likewise, frequent line and staff conflict lead to obstacles in the work performance. Thus incapability to resolve the conflicts lead to stress.
- v) **Organisation Process and Styles:** A number of organisational processes are planned to successfully meet the organisational goals. Communication process, control process, decision making process, promotion process, performance appraisal process, etc. are designed for realising organisational objectives. All these processes bound the scope of functioning of employees. Inappropriate design of various organisational processes leads to stressed relationships among the workers. They can cause de-motivation and job dissatisfaction. As a result, workers feel strained in adjusting to the method.
- vi) **Organisational Leaderships:** Top management is accountable for the formation of sound organisation climate and culture by suitable administrative approach. The climate should be tension free, fearless, and with no worry. Demanding leadership style forms a dictating environment in which employees are under pressure to reach the target. They work under unfriendly relations and stiff controls. This generates bigger work stress to workers. On the other hand, a climate of affectionate and sociability, scope for participation in decision making, non financial motivation and flexibility are encouraged under democratic leadership style. This reduces the stress of the workers. Hence, employees working under demanding leadership styles experience stress than employees working under independent leadership style.
- vii) **Organisational Life Cycle:** Each organisation goes through four stages of organisational life cycle; they are birth, growth, maturity and decline. In every stages the structure and the design of organisation experience frequent modifications. In addition, human beings are subject to transformation to adjust to the stages in the life cycle. In this procedure, workers are focused to job stress.
- viii) **Group Dynamics:** Groups are there in every organisation. Groups occur out of intrinsic desire of human beings and impulsive reactions of people. In organisations both formal groups and informal groups live. A formal group survives in the form of committees, informal group exist among different levels of organisation. Groups have a number of functional and dysfunctional results. They provide social support and fulfillment, which is accommodating to give

relief to the stress. Simultaneously, they turn out to be the basis of stress also. Lack of cohesiveness, lack of social support, lack of recognition by the group and irreconcilable goals leads to stress.

Some of the organisational level factors that can result in work stress are organisational structure and design, administrative policies, organisational policies, working conditions and organisational politics and culture.

- ix) **Organisational structure and design:** Excessive centralisation and formalisation, lack of role clarity, conflicts between departments and/or divisions, and lack of promotion opportunities are some factors rooted in organisational structure that can cause work stress
- x) **Administrative policies:** Bureaucratic rules, inefficient or ambiguous reward systems, work shifts and rotation, competitive pressures, constantly advancing technology and the need to update oneself can cause stress at work.
- xi) **Organisational policies:** Excessive and tight control over employees, giving responsibility without authority, lack of effective communication (communication only flows downwards, there is no scope for employees to express their opinions to superiors), lack of performance feedback, ineffective or unfair appraisal systems, and long working hours are some of the policies that result in employee stress at work.
- xii) **Working conditions:** Bad or uncomfortable working conditions can also cause stress at work. Examples of bad working conditions are excessive noise, heat or cold, polluted area, unsafe or dangerous conditions, poor lighting, presence of toxins, lack of a comfortable working space, overcrowding, etc.
- xiii) **Organisational politics and culture:** A negative work culture, which does not value employees and the presence of detrimental organisational politics, can also cause stress.

3.4.4 Environmental Factors

The external environment of business is constantly changing. These changes often have a significant impact on organisations and their employees. As the external environment changes, organisations need to adapt to the change or risk losing competitive advantage. Change creates uncertainty and uncertainty is one of the major factors in work stress.

Reengineering, restructuring and downsizing are concepts that have become commonplace in organisations and they are the methods that organisations use to cope with change. These affect employees directly and create uncertainty in their minds regarding their jobs and the fear of being laid off. Even if there are no layoffs, employees may have to take up new jobs within the organisation or additional responsibilities, all of which create further stress.

Technological innovation is also an important cause of stress. With rapid developments in technology, employees are under constant pressure to update their skills or risk becoming redundant.

Increased workforce diversity is also thought to be a cause of stress. As different people work together, there is greater scope for differences in values, beliefs and behaviour. This can also lead to stress in the work sphere.

Self Assessment Questions 1

1) Discuss the individual causes of stress.

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2) What are the group factors that contribute to stress?

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3) Write about organisational and environment stressors.

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3.5 CONSEQUENCES OF WORK STRESS

Stress manifests itself in many ways and cannot be ignored. The effects of stress can be seen in physiological, psychological and behavioural changes that occur in the individual who is undergoing stress. Let us discuss the physiological effects of stress.

3.5.1 Physiological Effects

Usually, physiological effects are the most prominent consequences of stress and have been widely researched in the medical field. Stress can cause changes in an individual's metabolism, blood pressure, change heart and breathing rates, induce headaches and in extreme cases, can even lead to heart attacks.

3.5.2 Psychological Effects

The psychological effects of stress form a more important area of study for students of organisational behaviour than the physiological effects. Some of the psychological effects of stress are dissatisfaction, tension, anxiety, boredom, and irritability. Studies have shown that job satisfaction and stress are closely linked. Employees, who are satisfied with their work, tend to experience less stress and vice-versa.

3.5.3 Behavioural Effects

The behavioural effects of stress can be an outcome of the physiological and psychological effects experienced by employees. Some of the ways in which stress manifests itself are increased absenteeism, changes in productivity, turnover, changes in eating sleeping or sleep patterns, alcoholism, etc.

3.5.4 Stress and Performance

Studies have shown that the relationship between stress and performance forms an inverted ‘U’ shape when plotted on a graph. This shows that moderate levels of stress are conducive to performance by stimulating the body and mind, however high levels of stress cause performance to fall.

Self Assessment Questions 2

1) Discuss about the impact of psychological stress.

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2) Possible signs of stress

- anxiety
- back pain
- constipation or diahrea
- depression
- fatigue
- headaches
- high blood pressure
- trouble sleeping or insomnia
- problems with relationships
- shortness of breath
- stiff neck or jaw
- upset stomach
- weight gain or loss.....

3.6 MANAGING STRESS

Stress is thought to be additive. A single stressor may not create a significant amount of stress, but each new stressor keeps adding to an individual’s stress level until the intensity of stress increases. Similarly, a relatively mild stressor may cause severe repercussions in an individual who is already experiencing a high level of stress. It is therefore very important for managers to understand the concept of work stress and learn how to manage it.

The management of stress can be done at an individual level and/or at an organisational level. At the individual level, the person can choose to make a conscious effort to lower his work stress by attempting a better work-life balance, and making small changes in his lifestyle.

Tips for dealing with stress

Don’t worry about things you can’t control, such as the weather. Solve the little problems. This can help you gain a feeling of control. Prepare to the best of your

ability for events you know may be stressful, such as a job interview. Try to look at change as a positive challenge, not as a threat. Work to resolve conflicts with other people. Talk with a trusted friend, family member or counselor. Set realistic goals at home and at work. Avoid overscheduling. Exercise on a regular basis. Eat regular, well-balanced meals and get enough sleep. Meditate. Participate in something you don't find stressful, such as sports, social events or hobbies.

At the organisational level, companies may choose to improve their administrative and business policies to lower work stress. Interventions like starting wellness programs, job redesigning, setting up of participative management systems, and training can also help employees deal with work stress. Some organisations also allow employees to take sabbaticals.

3.7 JOB SATISFACTION

Job satisfaction is one of the most frequently studied concepts in the field of Organisational Behaviour. It has several implications in a practical setting within organisations and is an important element in the process of managing employees. In this section we will understand the concept of job satisfaction, the factors that affect job satisfaction, its impact on work outcomes and the steps that OB practitioners can take to increase job satisfaction in employees.

3.7.1 Definition and Meaning of Job Satisfaction

Job satisfaction refers to a “collection of feelings that an individual holds towards his or her job”. It is a concept that relates to attitude and is rooted in cognitive theory. It is a result of employees’ perception of how well their job provides those things that are important to them. A person with a high level of job satisfaction has a positive attitude towards his job, while a person with a low level of job satisfaction holds negative feelings towards his job. It is an emotional response and as such it cannot be seen. It can only be inferred through a study of associated factors.

3.7.2 Influences on Job Satisfaction

How an employee feels about his job is determined by several associated factors. Some of these are given below:

The nature of the work: The nature and content of the work that the employee performs in the organisation has a very great bearing on job satisfaction. It is an accepted fact that, other things remaining constant, if the work content is challenging and interesting, employees experience a greater degree of job satisfaction.

The outcomes and rewards: People work for the outcomes that their jobs result in. In general these refer to the pay package, benefits and other perks that accrue from the job. Employees generally view pay as a reflection of the importance that the organisation gives to their job. When employees perceive that they are underpaid for the work they do, it could result in dissatisfaction with the job.

Potential for progress: Opportunities for growth and progress are a very important part of any job. Employees holding jobs that offer potential for growth perceive greater meaning in their work, and as a result experience more job satisfaction.

Nature of supervision: Nature of supervision is not a critical factor in job satisfaction, but can play a great role in creating dissatisfaction if it is of a dysfunctional nature. Supervisors who adopt an employee-centered leadership style (i.e. being concerned about the well being of employees) create greater job satisfaction in the people

working under them. Another dimension to this is the concept of participation. Supervisors who encourage employees to take initiative and participate in decision making also allow greater job satisfaction in their team.

Working conditions and co-workers: The physical conditions at the place of work can also affect how employees perceive their jobs. If conditions are uncomfortable or unpleasant it can lower job satisfaction. Employees’ relationships with their co-workers also influence job satisfaction to some extent. Teams that are functional and cohesive generally display a better attitude towards their jobs than teams where interpersonal relationships are ridden with animosity.

Self Assessment Questions 3

1) Discuss the factors which contribute to job satisfaction.

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3.8 MEASUREMENT OF JOB SATISFACTION

It is important for us to be able to measure job satisfaction to be able to identify the any problems in the organisation and to take steps to correct them. There are two main methods through which job satisfaction is measured.

3.8.1 Single Global Rating

In this method, employees are asked to respond to one question such as “All things considered, how satisfied are you with your job?”. Employees would rate their level of job satisfaction on a scale of 1 to 5, corresponding to answers from ‘highly satisfied’ to ‘highly dissatisfied’.

3.8.2 Summation Method

With the summation method, the OB practitioner identifies key elements in a job and asks employees to respond to how they feel about each element. These factors are rated on a standardised scale to arrive at an overall job satisfaction score.

Studies have indicated that until the early 1990s, employees in the US were fairly satisfied with the jobs. Most studies indicated that more than 50 percent, and in some cases nearly 80 percent of the people interviewed were satisfied with their jobs. However, since the 1990s, the general level of job satisfaction has been dropping. Experts believe that this could be the result of several factors including the burden of increased productivity on employees, longer working hours and increased competition in some industries.

3.9 IMPACT OF JOB SATISFACTION ON WORK OUTCOMES

The main reason for studying job satisfaction relates to the impact that it has on employees and their performance. In this section we will study the relationship between job satisfaction and some important employee variables.

3.9.1 Job Satisfaction and Productivity

Although it is generally assumed that job satisfaction would have a positive correlation to productivity, studies have indicated that this is not actually the case.

Satisfied employees are not necessarily the most productive employees. This could be because job satisfaction is a result of several different factors, all of which may not be related to productivity. For instance, people may be satisfied with their jobs because they have very good relations with their co-workers, but this may not necessarily translate into greater productivity. In fact, productivity has a higher correlation with the rewards system. If the rewards system in the organisation recognises productivity, productivity generally tends to be higher.

On the other hand, studies show a higher correlation between productivity and job satisfaction at the organisational level. That is to say, organisations that have a greater number of satisfied employees are generally seen to be more productive than organisations where a majority of the employees are dissatisfied.

Self Assessment Question

1) Discuss how job satisfaction contributes to productivity.

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3.9.2 Job Satisfaction and Turnover

A high level of job satisfaction does not necessarily lead to low turnover, but dissatisfaction has a greater correlation to high turnover. This means that is not guarantee that employees will not leave an organisation where they experience a high level of job satisfaction, but it is more certain that they will make more efforts to leave a job with which they are not satisfied.

The relationship between job satisfaction and turnover is also different in the case of high performers and low performers. Because performance and job satisfaction are not strongly linked, it is possible for an employee to be a high performer even without being satisfied with the job. High performers are usually valued by organisations and efforts are made to retain them through high rewards, promotions etc. If the rewards system is effective, it may be successful in retaining high performers with the organisation, even if they are not highly satisfied with their jobs.

Factors such as commitment and conditions in the job market also influence the relationship between job satisfaction and turnover. Some employees are very committed to the organisation and cannot think of working anywhere else. Such employees will remain with the organisation even with low job satisfaction.

Conditions in the job market also affect turnover. If the job market is very vibrant and employees are presented with several lucrative options, they may choose to leave organisations where they are satisfied with their jobs.

3.9.3 Job Satisfaction and Absenteeism

In general job satisfaction and absenteeism have an inverse relationship. When job satisfaction is high, the organisation tends to show a low level of absenteeism. However, this dimension is also affected by other variable such as employees' perception of the importance of their jobs.

Employees who feel that their jobs are important may not display a high level of absenteeism whether they are satisfied or not. On the other hand, employees who

do not consider their jobs to be very critical to the organisation may display a greater level of absenteeism even if they have a high degree of job satisfaction.

In addition to this, the penalties for absenteeism within the organisation also influence the rate of absenteeism. Organisations that allow absenteeism without penalties show a greater incidence of the same regardless of whether employees are satisfied or not. On the other hand, organisations that penalise absenteeism show higher levels of attendance even from dissatisfied employees.

3.9.4 Job Satisfaction and Theft

Employee theft has many causes, and dissatisfaction with the job is among the most important of them. Some employees steal because they are dissatisfied with the treatment meted out to them. They may steal under the impression that they are damaging the organisation in some way and taking revenge.

3.10 ORGANISATIONAL ASPECTS IN JOB SATISFACTION

The structure on an organisation can also impact the level of job satisfaction in employees. However, it is not easy to directly link job satisfaction with an organisation's size or structure. This is because organisations are not uniform. Sometimes a very large organisation may be divided into significantly smaller sub units, each of which may work as a separate company (the best example of this is General Electric or GE). In this context, the size of the parent organisation would have no correlation to job satisfaction. However, it is important to broadly understand how job satisfaction is related to organisational factors.

Level of Employee: Employees at higher levels in an organisation are thought to be more satisfied than people at subordinate levels.

Age: As workers grow older they tend to be more satisfied with their jobs as their expectations are lower and they adjust better to their jobs.

Nature of Work: Employees in 'line positions' i.e. the employees who are directly involved with the main business of the organisation (like all levels of people involved in the production line of a factory) are more satisfied than support staff (like HR and administrative employees).

Organisation Size: Generally people who are one among many in larger organisations display lower job satisfaction than employees who play important role in smaller organisations.

Organisation Structure: It is also thought that 'tall' organisations with many hierarchical levels and less people at each level satisfy existence and relatedness needs better than flat organisations with many people at each level. Flat organisations satisfy growth needs better.

Centralisation and Decentralisation: Organisations that are more decentralised and delegate responsibility to employees offer better scope for job satisfaction than centralised structures.

3.11 LET US SUM UP

Employee well-being and satisfaction form an important part of organisational culture. Organisations that develop and make an attempt to maintain a positive culture have

a better chance at achieving organisational goals effectively. This is the reason why, many organisations are making an effort to manage work stress proactively and include elements that promote greater job satisfaction among employees. In this unit we learnt about stress, its definition and meaning. We also dealt with the causes of stress and the various consequences that may come about as a result of work stress. The various effects of stress were discussed in detail and the many methods to overcome stress were also presented. This unit also dealt with job satisfaction, provided the meaning and definition of job satisfaction, and influences of job satisfaction on work performance. We then discussed the measurement of job satisfaction and put forward the methods of measuring job satisfaction. The unit also presented the impact of job satisfaction on work outcomes and discussed the various organisational aspects related to job satisfaction.

3.12 UNIT END QUESTIONS

- 1) Define stress and differentiate between stress, anxiety and tension.
- 2) Analyse the causes of stress.
- 3) Discuss the physiological and psychological consequences of stress.
- 4) How does stress affect behaviours and performance of individuals in work situations.
- 5) Define job satisfaction and indicate the various measures of job satisfaction.
- 6) Discuss the impact of job satisfaction on work outcomes.
- 7) In what ways job satisfaction influences absenteeism or vice versa?
- 8) Discuss critically the organisational aspects in job satisfaction.

3.13 GLOSSARY

Individual factors of stress	: These are the personality traits, personal economic conditions, social and family issues.
Group factors	: Lack of cohesiveness and social support
Organisational factors	: The structure and design, administrative policies, organisational policies, working conditions and culture.
Environmental factors	: Reengineering, restructuring, down sizing, technological changes and workplace diversity
Job satisfaction	: A collection of feelings that an individuals holds towards his or her job.

3.14 SUGGESTED READINGS

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UNIT 4 PSYCHOLOGICAL INTERVENTION

Structure

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Organisation Développements as an Intervention
 - 4.2.1 Need for Organisational Development
 - 4.2.2 Individuel Intervention
 - 4.2.3 Group Level Intervention
 - 4.2.4 Organisation Wide Intervention
- 4.3 Process Consultation
 - 4.3.1 Exploratory Inquiry
 - 4.3.2 Diagnostic Intervention
 - 4.3.3 Action Alternative Interventions
 - 4.3.4 Confrontative Interventions
- 4.4 Evaluating the Effectiveness of Process Consultation
 - 4.4.1 Organisation Wide Intervention
 - 4.4.2 Use of Survey Feedback
 - 4.4.3 Use of Standard Instruments
- 4.5 Total Quality Management (TQM)
- 4.6 Changes in Structure
 - 4.6.1 Strategic Planning
 - 4.6.2 Visioning Process
- 4.7 Evidence on the Effectiveness of Organisational Development
- 4.8 Let Us Sum Up
- 4.9 Unit End Questions
- 4.10 Glossary
- 4.11 Suggested Readings

4.0 INTRODUCTION

Since organisations are open systems, the interplay of forces and pressures at the boundary between the organisation and the environment has a great deal to do with change. Where market forces and the actions of competitors represent important unavoidable forces, adaption in the interest of survival may be a routine procedure. Technological changes participative management shorter work weeks are some of the adaptations made by the organisation as a reaction to the demands of the external environment and these reactions constitute proper forms of organisational change and development. In this unit we will be describing organisational développement as an Intervention and put forward its various components. We then discuss process consultation and the need for the same and the procedures used for such consultation. This unit then describes how the process consultation results are evaluated and the various methods used for such evaluation. This unit then deals with Total Quality Management and its characteristic features. The other intervention namely the change structure is also presented along with the measures thereof.

4.1 OBJECTIVES

After going through this unit, you will be able to:

- Define organisation development;
- Explain what is organisation change and development;
- Describe the various reasons for organisational change;
- Describe the interventions used at individual level;
- Analyse the group level intervention; and
- Enumerate organisation wide intervention.

4.2 ORGANISATION DEVELOPMENTS AS AN INTERVENTION

Schein (1970) discussed about the adaptive coping cycle in which he talks about three stages to obtain a more adaptive dynamic equilibrium.

- Sensing a change in some parts of the internal or external environment.
- Importing the relevant information about the change into those parts of the organisation that can act upon it and
- Change production or conversion processes inside the organisation according to the obtained information.

Thus much of the organisation development emphasises is now on team building more than in just reaction. It is implied or stated that team building and related processes are necessary to increase the organisation's ability to respond to external change and the internal interdependence that arises from it.

They characteristically engage in anticipatory behaviour that subsequently becomes an important stimulus for change which in other words can be termed as pro-action. Therefore for organisation to with stand the competitive world they have to be more proactive than reactive.

Organisations seek to become more effective day by day as they have to be able to survive in this competitive market. If they do not change they would go out of business. Thus change is inevitable and it is also necessary for more proactive reasons. For organisations to change, certain organisational development interventions are necessary.

While discussing organisation development we can define it as “a set of behavioural science based theories, values, strategies and technologies aimed at planned change of the organisational work settings for the purpose of enhancing individual development and improving the performance, through the alteration of the organisational members on the job behaviour.”

In this definition, the focus of organisational development is on facilitating organisational change which enhances both the organisation's performance and individual development. A distinction is made here to emphasise whether the intervention should be to improve the organisation's performance or the individual's development.

Another aspect of this definition is that as the organisational development is rooted

in the theories and methodology of behavioural sciences, in this context one needs to distinguish between organisational development from the approaches to organisational change. In such a case, the emphasis will shift to changes in manufacturing technology or may be in the information systems.

Finally, this definition helps us to on changing employee's behaviour because the key to any change is changing the behaviour of employees working in the organisation.

As is clearly evident from the above, there are several aspects of the definition which needs to be taken into consideration while talking about organisational development intervention.

4.2.1 Need for Organisational Development

To the question regarding why there is a need for organisational development the following reasons could be advanced:

- i) For the survival of the competition.
- ii) Poor organisation performance. When an organisation fails to show profits over an extended period of time, it should be understood that there is a need for change.
- iii) For strategic reasons. That is some organisations engage in programmes of planned change for strategic reasons, as for example a manufacturing organisation may decide to enter the consumer products business after taking up acquisition. It may have to institute a number of changes to make this strategy work effectively.
- iv) Responding proactively to anticipated changes in the external environment. To give an example, many universities put the resources into distant education programmes because they anticipate changes in the technology and an increase in the number of working professionals who would be attending college.
- v) For Self Improvement. That is, the reason for organisations engaging in the programmes of planned change could be simply for the sake of self improvement. An example for this is when an organisation has proved itself as a successful one and wants to maintain the image, it constantly tries to look for changing and improving.

Organisations that are always striving to get better will remain competitive longer than organisations which become complacent after initial success.

The above shows how Organisational development is the tool of choice for facilitating changes. When any change is planned it differs in two ways, namely (i) the level at which they are aimed and (ii) the process itself, that is, first the organisation development interventions are typically aimed at individuals, groups and the organisation as a whole.

Of these the most popular level of intervention is at the group level, mainly because most organisations have realised how important groups are for the success of organisation.

Individual level interventions are also used frequently but these are more in the form of training programs rather than as organisational development interventions.

The second is a process that is the designing of the intervention, essentially anything that can impact the performance of the individual or the organisation as a whole, could be the focus of the organisational development intervention.

Example of process are:

- i) the roles the employees are asked to play
- ii) the goals that drive individual employees and organisations as a whole
- iii) groups and inter-group processes
- iv) organisational structure and organisational strategy.

4.2.2 Individual Intervention

Sensitivity training

Turning to the individual level interventions, one of the first organisational development interventions is sensitivity training which is also known as T- group training. Though this training is carried out as a group activity it is aimed at an individual rather than the group.

This is because the goals of T-group training are:

- a) enhancement of interpersonal skills and competency of the individual
- b) enhanced awareness of the impact of ones behaviour on others and
- c) a greater general understanding of group dynamics.

Although T-group was at one time the most popular intervention in organisational development it is rarely used by OD practitioners today because, there has arisen a doubt about the effectiveness of the T-Group itself. It has been found to be difficult to transfer back to the work place what is learnt in the T-group. The total honesty and authenticity that are the hallmarks of T-group movement may not function well in the real world work settings.

Besides these there are also some ethical questions which are surrounding the use of T-groups, one of which is the compulsion placed on the employees to participate.

What ever be the reasons for the non-usage of T-groups in the present day context, the impact of these trainings in the field of organisational development cannot be underestimated. Most of the present day popular OD interventions have their roots in the T-group movement.

Job Redesign

Another common individual level OD intervention is job redesign. It is a powerful individual level organisational development intervention because individuals spend more time on performing their jobs than on any other activity in the work place. Thus, job redesign can be a very efficient way to change the behaviour of an employee.

However there are certain limitations of job redesign and these include:

- i) It cannot address more macro issues at work environment, like, the culture
- ii) Employees may not have any difficulty with their work or timing of the work, but they may not be very happy with the prevailing culture, that too if it is of mistrust of hostility.
- iii) It is expensive as one has to diagnose and change jobs. If the system wide jobs need to be redesigned it has far reaching consequences in terms of costs.
- iv) The organisations may incur some unplanned expenditure.

The next commonly used organisation development intervention is management by objectives (MBO).

This method involves some level of joint goal setting between employees and their supervisors and the performance of the individual is assessed in relation to their progress in accomplishing these goals. Research has shown that MBO programs have a positive effect on employee performance. However it has been found that there is a need for unflinching support from the top management for this programme to be successful.

Self Assessment Question 1

1) Write the meaning of sensitivity training.

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4.2.3 Group Level Intervention

Since organisations are adopting team-based structure, the group or team is the most common level at which organisation development interventions are needed to be focused.

The most common group level organisation development intervention is ‘team building’.

Team building is defined as ‘a long term data-based intervention in which intact work teams experientially learn by examining their structures, purposes, norms, values and interpersonal dynamics, to increase their skills for effective teamwork. The attempt here is to assist the group to become more adept at identifying, diagnosing and solving its own problems but, to a certain extent with the help of a behavioural science consultant.’

Team building programmes vary from organisation to organisation but Liebowitz and De Meuse (1982) describe series of eight steps that are typical in most team-building intervention. These are given below:

- 1) Scouting
- 2) Entry
- 3) Data Collection
- 4) Data feedback
- 5) Diagnosis
- 6) Action planning
- 7) Action implementation
- 8) Evaluation

The first step that involves an exchange of information between a consultant and a potential client organisation is called Scouting.

1) **Scouting:** In this step the consultants would describe his or her expertise,

values and style of operation. The organisation on the other hand would describe the nature of the problems as well as the potential causes of these problems, and if it is determined that team building is one of the best possible intervention then the process moves ahead. But, if team building is inappropriate then the consulting relationship is terminated unless the consultant can offer other services. Suppose both the parties agree that team building is appropriate, the next process begins over here which is called entry, about which we describe in the following paragraph.

- 2) **Entry:** This is the point at which the client's and the consultant's relationship begins to become formalised. The typical method of information is through written contracts. There are many variations in the contracts, but what is most important is that the consultant and the client must come to a common understanding on the major dimensions of the consulting relationship (for e.g. activities of the consultants, fees, time frame of work etc.).

The most essential features in this step are that the consultant should establish his credibility and the management of the organisation should provide enough support to sustain the project.

- 3) **Data collection:** In the next step, that is after scouting and entry the consultant begins the process of data collection. This is a technique of collecting information from various sources, on the methods of functioning of the work group in an organisation. This sometimes can involve personal interviews of the group members apart from information obtained from other sources such as surveys, observations and archival records (like minutes of the meeting, performance records). The important objective here is to obtain as complete a picture of the functioning of the group as possible.
- 4) **Data Feedback:** After the collection of the data, the next step is to summarize these data and engage in some kind of data feedback. Here each work group in the client organisation is met and the collected data is presented to them. This feedback helps the members of the work group to get a much clearer picture of their functioning and realise the discrepancies that are actually existing in what they perceive of themselves and what their actual performance is. This prompts the group members to examine the team's functioning from closer quarters.

There are a certain innate dangers in this kind of feedback as group members can either deny the discrepancies or may even turn hostile towards the process or the consultant.

Sometime during the data feedback, certain area of concern will typically surface, for example, the group members may not be satisfied with the way the communication channels work in their organisation or the way in which the decisions are taken. Thus at this point , the group needs to engage in diagnosis.

- 5) **Diagnosis:** This represents the group's attempt to explain why the collected data came in the way they did. This is a crucial step in the team building process because many a times the group might not have paid any attention to the work methods and internal process.

Therefore, the diagnosis stage is considered to be a series of problems that are preventing the group from performing to their full capabilities which can be considered as barriers to performance.

Hence listing out these barriers is an important step because once the problems are identified the group can begin to develop solutions. This is the purpose of the next step i.e. the action planning.

- 6) **Action plan:** In this phase, one or more action plans are developed for each of the important problems that have been identified. For example, if there is poor communication among group members, then a corresponding action plan could be to increase the number of group meetings from once a month to once every two weeks. Action plans are important because they are very useful in the team building meetings in particular. It attempts to make the group commit itself to do, so that it can make itself function more effectively.

However, one thing is important to be considered here, that not all action plans are of equal value. They will be more useful, if they are specific and measurable. They must have an identifiable time frame and hold the concerned individuals responsible for implementing them. Even if one or more of these attributes are missing, then the action plan will be forgotten soon after the team building meetings are adjourned.

- 7) **Action implementation:** Once the team building meeting is over, the group goes back to its normal routine and then enters into the next phase which is called the action implementation step. Now this becomes a challenging part of the team building process because even though the group generates good action plans, it is difficult for the group members to give up their old habits and engage in the new behaviour. For example, it is easy for the leader to say that subordinates can participate in decision making, but at the same time he may feel it a threat to his position and he may not be able to exercise the same control over the subordinate, if he makes them participate in decision making.
- 8) **Evaluation:** The final stage of team building process is evaluation, which takes place after some time has elapsed since the team building meeting. In this phase, the group's progress on the implementation of the plans is assessed. This is an important step because it serves as a check on the group's commitment to its action plans. If there is no follow up, groups will either not implement the plan or lose interest in it soon.

The evaluation process is usually in the form of follow up meeting in which the group and the consultant review the progress on each of the action plan which was generated during the initial team building meeting.

Generally, most organisations which want to change and develop, attempt at implementing the action plan but sometimes, there are good chances that the original action plan needs to be revised or sometimes, some external factors may prevent the group from implementing these action plans. In both these cases nothing much can be done by the consultant except that the organisation should take up the complete responsibility. However team building intervention can be a very effective method of improving a number of group processes.

Self Assessment Question 2

- 1) Write all the steps of team building.

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4.3 PROCESS CONSULTATION

The next organisational development intervention for group level is the Process consultation. As a consulting philosophy the emphasis of a consultant is to primarily guide an organisation. The attempt is to discover what the organisation's problems are and finding solutions to those problems. Therefore the emphasis is more on how things are done rather than on what is actually to be done.

As an organisational development intervention, process consultant represents a set of intervention that a consultant can implement.

Schein (1987) classified intervention on a continuum, based on how confrontational they are for the client. It had at one extreme the exploratory inquiry and at the other extreme contained confrontatory interventions. Let us take up each of these and consider what they are in terms of intervention. In the exploratory inquiry the consultant gets some idea of the concerned problem but in the confrontatory intervention the consultant actually intervenes by giving solutions and asking if the same has been implemented.

4.3.1 Exploratory Inquiry

The least confrontational type is the exploratory inquiry. For example a process consultant can ask a group "How have the things been going the past few months?", or "Tell me a little about things that are important to the group's success". The answers of the group members to these questions can give the consultant some vague idea about the areas of concern.

4.3.2 Diagnostic Intervention

The second general type of intervention described by Schein (1987) is a diagnostic intervention. In this type, the process consultant will ask questions which are more focussed. That is, if a group decides that its primary problem is the defective communications among group members, the diagnostic inquiry will be "what do you think contributes to this form of *communication within your group? Or what can I do to help you improve communication?*"

This type of questioning is less confrontational and focuses on a specific aspect of group functioning both at the time of isolating the problem and at the time of determining whether the consultant can help them to solve it.

4.3.3 Action Alternative Interventions

The third level proposed by Schein (1987) is called as action alternative interventions. Here the clients are not told what to do, but it is more confrontational than the other two wherein the process consultant is asking the group "*what have you done about the problem?*"

Thus, if the group feels that internal communication is a problem and that the nature of work roles contributes to this problem, the process consultant might ask as an alternative intervention "what have you done to improve the situation"?

Or if roles are the problem, have you done anything to change the roles of group members in a way that would facilitate communication?

Schein has considered the above question as potentially confrontational because of the difference between the roles of the client and the consultant. According to Schein, the consultant is in the helping position and therefore they are the professional helps,

and the client organisation is seeking help from them as they are not able to solve their own

problems. So, the organisation is in a dependent or in a lower status than the consultant and this is the reason why the process consultant can become slightly confrontational and ask the organisation what has it done about a problem? The client organisation can accept that it has done a wrong thing or has done nothing to solve the problem.

4.3.4 Confrontative Interventions

The final type of intervention is labeled as confrontative interventions by Schein. Here the process consultant makes recommendations as to how to solve the problem. Their suggestions are more directive than the previous three types because in this context the consultant is telling the client like “why don’t you do _____ to solve a problem? Or I would recommend trying _____.” These types of suggestions are more confrontational, because the client may assume that the way he or she had been doing things is incorrect.

The key issue in process consultation according to Schein is how far or how quickly one moves along this intervention, that is from the exploratory inquiries to confrontative intervention. Most often it is found that the clients consider the consultants as bright experts to whom they can “hand off” their problems.

However handing off the problems is more counterproductive. Consultants however capable they are, rarely will have enough information to present concrete recommendations immediately to an organisation and it is also not too good to give solution without considering all the information.

Besides this, the organisations are too complex and are also embedded in a cultural context which an outside consultant cannot always understand completely.

Another problem that can emerge with ‘handed off’ is, when members of an organisation ask for advice, consultants feel compelled to offer something more concrete. He is generally expected to work at the exploratory or diagnostic levels rather than at the confrontational level. However, this is a little more advantageous to the consultant because he will have time to obtain more information about the organisation and its problems, than what he would have obtained by being confrontational.

This information would help the consultant make recommendations in the future which will be based on much more solid information.

Moreover the consultant staying at the exploring or diagnostic level is also beneficial because the intervention would free the members of the client organisation to think and thus will in turn sharpen the employees’ analytical and diagnostic skills which can develop capacities to solve some of the problems in their own.

Sometimes these employees may come up with some of their own solutions for their problem. This is actually good because, the employees are actually experiencing the problems and therefore can judge what will and what will not work in the organisation.

In addition to this general typology, Schein has also proposed a number of more specific interventions. These are presented below. It may be kept in mind that the interventions are actually very simple and are used very frequently in the organisations without really paying much attention to them. They also serve as solutions to help

people solve their problems. In the table below we have presented Schein's interventions and the category to which such intervention belongs, such as whether it is exploratory or diagnostic or action oriented or confrontative etc.

Intervention	Category
1. Active, interested listening	Exploratory
2. Forcing historical reconstruction	Diagnostic
3. Forcing concretization	Diagnostic
4. Forcing process emphasis	Diagnostic
5. Diagnostic questions and probes	Diagnostic, action oriented
6. Process management and agenda setting	Confrontative
7. Feedback	Confrontative
8. Content suggestions and recommendations	Confrontative
9. Structure management	Confrontative
10. Conceptual inputs	Potentially Confrontative

Looking at items 6 through 10 in the table, it is seen that these are more specific to group settings with process management and agenda setting. In these cases, the process consultant can help as to how group meetings should be conducted. This can be considered as confrontational. He can suggest measures as to how to conduct meetings, and how the agenda might be structured. Otherwise there is a potential danger of wasting the group members' time and not completing the discussion of all the items on the agenda.

The next thing is providing feedback. This is another potentially confrontational intervention. For example, all members of the group may not be involved in the group discussion and only a few may be talking more frequently and dominate the discussion. This could indicate that there are often problems in the group. Despite being potentially confrontational, this type of feedback might be highly useful because a group may not even be aware that this is happening among them.

Further, when a consultant makes content suggestions and recommendations, he is being more directive and therefore again confrontative. Here the consultant may recommend that all the group members should discuss their concern at the end of the meeting and also make a recommendation of the frequency of team meetings such as to increase the number of times the group meets in a month or reduce it etc. This is also considered confrontational, because even though the process consultant is not saying that things have been done wrongly, the recommendation conveys that opinion.

With the structure management, the consultant can recommend the design of a group's task, that is the manner in which the group carries off its tasks. For example, if each member of the group was performing highly specialised tasks so far and the consultant in this context may recommend of combining tasks in order to increase the meaningfulness of the work. This will again be confrontational because the process consultant is directing the client to accept a solution suggested by him.

The final intervention in the table is labeled as conceptual inputs. It is common that the consultant will present relevant conceptual material during group related intervention. Though these inputs are highly useful, sometimes they are counter productive, in that they are overused. For example, the group does not encourage debate and open communication among its members. However the group goes through research articles

which are suggesting that both of these are positively related to group effectiveness. This information may make the members very uneasy.

4.4 EVALUATING THE EFFECTIVENESS OF PROCESS CONSULTATION

There is very little empirical evidence to endorse its effectiveness. However there are a number of advantages in using this method.

Process consultation is an ideal type of intervention where the organisation knows that something is wrong with them but is not sure where the problems lie and they need help and guidance in discovering those problems.

In this situation, the work of the process consultant is to help the employees help themselves. This is so because the primary assumption of this model is that the client owns the problem and is ultimately the one who knows the organisation well enough to figure out the problems and also work out suitable solution to the problems.

4.4.1 Organisation-wide Intervention

After having dealt with and considered how the individual level and group level interventions help in bringing about successful change in the organisation, let us consider the effect it would have if the intervention is planned for the organisation as a whole.

There are a number of reasons why we should focus on organisational change and these programmes are becoming very popular when the organisation as a whole is involved in the change effort. There is more likelihood to sustain the change for a longer period.

Also at the rate at which the change is happening in the business environment, it is very expensive and difficult to aim just at individual and group change which has a higher possibility of relapsing. Moreover if an organisation wide change is planned it is expected that the individual's and group's performance will fall into place.

The most widely used organisation interventions are Survey feedbacks, Change in structure, Strategic planning and vision interventions.

4.4.2 Use of Survey Feedbacks

In a typical 'survey feedback program', a survey is administered to all the employees. It may address issues such as attitude, perception of organisational climate, perception of management and perceived level of effectiveness etc.

After the survey is administered and collected back, the results are tabulated and then presented back to employees typically within their own work group.

Before the survey items are developed, the consultants first conduct personal interviews with a random sample of employees. Based on the theme that emerges, from the interviews, survey items are developed. For example, suppose many employees who have been interviewed consistently reported that they had problems with their compensation etc., survey feedback forms are designed with items or questions which measure whether the employee is satisfied with his pay package and other fringe benefits etc.

4.4.3 Use of Standard Instruments

Another method is that the consultants may have some standard instruments that may be administered to the employees.

An advantage of using a standardised instrument is, that one organisation's results can be compared with those of the other organisation in the same industry or in a geographical location. The disadvantage is that because the items are not specific to the particular organisation, many issues that are important for the improvement of that organisation may be missed out.

Whatever is the method of collecting the essential information from the employees, the most basic or important aspect of this method is the feedback. Typically in a survey feedback program, the data are fed back to every employee in the organisation.

That is the top management team of an organisation will first review the survey results. Each member of the top management team will share the results with their reporting subordinates and this procedure will go on until everyone in the organisation has had an opportunity to know the opinions of the entire organisation and also the data that represents the opinions of the departments in which the work group may reside.

Thus, it has been found to be a very effective method of organisation development intervention. Many research findings have also supported this effectiveness of Survey feedback method.

Self Assessment Question 3

1) Write about survey feedback programme.

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4.5 TOTAL QUALITY MANAGEMENT (TQM)

The second organisation wide intervention that had become increasingly popular in the past twenty years is "Total Quality Management."

One of the major principles of TQM is that an organisation must measure the quality of the product if it wants to improve it. Thus organisations that have adopted TQM typically spend a great deal of time both collecting and analysing data on the quality of their products and services.

Another important principle of TQM is that even the lowest level employees should feel empowered to take up steps toward quality improvement when ever necessary. This is one of the important factors that make TQM an organisation wide intervention and a powerful management philosophy.

For example, let us say that in a manufacturing environment employees are given the opportunity to access quality control data and are encouraged to act on the problem in order to improve the products quality. In yet another example, let us say in a service organisation, all employees have the authority to do things to satisfy the customers. In such cases the quality of service will improve and thus there will be a Total Quality Management.

Although many organisations have had success with TQM and with another similar program called Continuous Quality Improvement (CQI), these interventions also had to face criticism. A frequent criticism of TQM is that it does not translate well to non manufacturing setting, as for instance in service organisations like hospitals, educational institutions or government organisations. In these it is not possible to talk in terms of numerical data or units produced. In this situation TQM becomes redundant. However, the quality of services provided can always be measured and there is a scope of improving this quality.

Another problem with TQM is the resistance from the unions. Unions generally are of the opinion that TQM is undercutting them. The amount of effort involved in collecting and analysing the quality information and then suggesting solution to the problem has not been covered under the collective bargaining agreement. The union always considered it as the management's responsibility.

Despite these disadvantages, many organisations have adopted TQM and maintain a high level of commitment to these programs and are convinced that they are effective.

4.6 CHANGE IN STRUCTURE

The next comprehensive organisation change is through a change in structure. Suppose all the departments in the organisations are restructured, employees have no other option but to engage in at least some form of change. Unfortunately the structural changes that are brought about will ultimately end up as pseudo changes if they are not accompanied by changes in employee's behaviour. Let us take an example, let us say that if an organisation changes to a team based structure in exchange of a vertical based structure, this will not result in meaningful organisational change if the individual employees continue to act primarily in their own self interest rather than that of the team and in turn for the sake of the organisation.

The other common ways of facilitating broad based organisational change are strategic planning and visioning intervention.

4.6.1 Strategic Planning

It is an organisation's plan as to what it is going to accomplish and the methods or techniques it will use to accomplish it. Strategic planning is an important function of an organisation because it brings about important activities such as Human Resource planning and compensation and also influences key decisions like acquisitions and mergers.

If an organisation has to bring about change in an effective manner, it has to change its strategic objectives. For e.g. if the school management which at one time was more concerned with the holistic development of the child has changed its trend and intends to withstand the competition of corporate schools, which advertise, of giving various foundation courses, has to have a strategic plan of attracting competent teaching staff and high achievement oriented children to their school. Thus the school has to be able to locate the required skill and talent from the available resources by strategically planning their staff. It may also require some fundamental change in organisation culture and also in the structure.

4.6.2 Visioning Process

On the other hand the process of Visioning requires the members of the organisation (usually the top management) to decide:

- What the organisation would look like if it were ideal?
- What the organisation currently looks like?
- What strategic steps need to be taken in order to get the organisation from where it is to where it could be in an ideal state?

This type of activity is very useful, particularly prior to strategic planning as it enables the organisation decision makers to think about where they are heading and how should they get there.

These two i.e. Strategic planning and Visioning process represents the beginning of a long term large scale organisational change process and will also help in necessitating other interventions at many other organisational levels.

Self Assessment Questions 4

- 1) Write the meaning of strategic planning and visioning.

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4.7 EVIDENCE ON THE EFFECTIVENESS OF ORGANISATIONAL DEVELOPMENT

There are enough empirical evaluations of organisational development programs conducted over the years which have yielded several summaries using qualitative and quantitative methods. The most widely cited qualitative summary is the effectiveness of a number of organisational development intervention is that of Bowers (1973). He found that survey feedback is the most effective method.

In more recent years researchers have applied meta-analytical methods and they have supported the effectiveness of management by objectives. In most part, these quantitative reviews suggest that many organisational development interventions positively impact a number of employee attitudes and behaviour. However there are some suggestions which point out that while organisational development intervention can have positive effects, these effects may vary considerably across organisations.

4.8 LET US SUM UP

In the preceding paragraphs we have examined what is change and why it is essential. Therefore to implement planned change interventions at different levels become necessary. We have studied that at individual levels sensitivity training can be utilised as intervention technique to bring about the needed change in individuals attitude, interpersonal relationship etc.

Job redesigning can be done to empower individuals by giving them more responsibilities, finally management by objectives can help to provide a direction to their work process.

Turning to group level intervention team building has been proposed as an effective method in which eight steps have been delineated which have to be followed to bring about the change effectively. At the organisation level survey feedback, TQM, change

in structure, strategic planning and visioning are dealt which emphatically tell us how important it is to include the employee in the change process and in case he / she is not co-operating, how the whole process is a waste.

Finally the evaluation of organisation development shows that intervention positively impacts a number of employees' attitudes and behaviour but suggests one has to be aware that these effects may vary considerably across the organisation.

4.9 UNIT END QUESTIONS

- 1) Do you think that sensitivity training is an effective way of individual intervention?
- 2) Delineate the steps given by Liebowitz and DeMeuse in team building.
- 3) Critically examine the effectiveness of survey feedback method in organisation development.

4.10 GLOSSARY

Sensitivity training	: This is carried out to enhance interpersonal skills, competence, understanding the impact of one's behaviour on others and understanding the group dynamics.
Job redesign	: Enhancing the potential of the job through job rotation, job enrichment and job enlargement.
Management by objectives	: This involve some level of joint goal setting between employees and their supervisors and employees' progress is assessed in relation to their progress in accomplishing these objectives.
Team building	: It attempts at assisting a group in becoming adept at identifying, diagnosing and solving its own problem, with the help of a behavioural science consultant.
Process consultant	: An outside agent who analyses the problem of the organisation and process an intervention.
Survey feedback	: A set of questions which are administered on the employees to collect the required information for further action.
Total quality management	: Keeping a check on the quality of products and attempting to improve the quality.
Strategic planning and visioning:	An organisation's plan of what it is going to accomplish and how. What steps are needed to get the current level to ideal state?

4.11 SUGGESTED READINGS

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UNIT 1 INTRODUCTION TO OCCUPATIONAL HEALTH AND STRESS FACTOR IN ORGANISATIONS

Structure

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Introduction to Occupational Health
 - 1.2.1 Preventive Medicine in Organisation Context
- 1.3 Future Directions in Occupational Health Psychology
- 1.4 Expanding the Vision of Occupational Health Psychology (OHP)
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 - 1.4.4 Aging
- 1.5 Psychologically Healthy Workplace
 - 1.5.1 Healthy Workplace Practices
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 - 1.6.7 Organisational Constraints
 - 1.6.8 Perceived Control
- 1.7 Contemporary Organisational Stressors
 - 1.7.1 Workfamily Conflict
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 - 1.7.3 Layoffs and Job Insecurity
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- 1.10 Glossary
- 1.11 Suggested Readings

1.0 INTRODUCTION

Prevention is better than cure is an adage which is frequently heard by us. This adage suggests that it is better to be cautious about health and others problems than to find solutions for them. Organisations function just like the human body and therefore

need to be nurtured carefully. Attempts should be made at being cautious and strategic to prevent problems and the ensuing stress which would have adverse effect upon both the organisation and the individual. Unhealthy climate and high stress levels of an organisation would directly impact the production and services. Thus organisation should find ways of keeping the organisation's health intact and see that the employees do not suffer from high stress levels. Steps have to be taken to see that they are provided with optimum levels of workload and the physical conditions and the psychological conditions are not hazardous. It is the responsibility of the organisation to provide conducive atmosphere to the workers to enjoy their work. In this unit we will be dealing with occupational health, definition, characteristic features of a healthy organisation, definition of occupational health psychology and the application of occupational health psychology principles to real life situations.

1.1 OBJECTIVES

On completing this unit, you will be able to:

- Define occupational health;
- Describe the characteristic features of occupational health;
- Elucidate the importance of occupational health psychology;
- Explain the usefulness of occupational health psychology;
- Explain the application of occupational health psychology;
- Define workplace health and stress in workplace; and
- Analyse the factors that contribute to stress at workplace.

1.2 INTRODUCTION TO OCCUPATIONAL HEALTH

The definition of occupational health reads as follows: Occupational health should aim at the promotion and maintenance of the highest degree of physical, mental and social well being of workers in all occupations. The protection of workers in their employment from risks resulting from factors adverse to health and the placing and maintenance of the worker in an occupational environment adapted to the worker's physiological and psychological capabilities. To summarize, the adaptation of work to man and of each man to his job. This is a common definition of occupational health adopted and shared by the joint ILO / WHO committee on occupational health at its first session in 1950 and revised at its twelfth session in 1955.

Occupational health is a relatively new field that combines elements of occupation health and safety industrial / organisational psychology and health psychology. The field is concerned with identifying work-related psychosocial factors that adversely affect the health of people who work. Thus Occupational Health Psychology is also concerned with developing methods which can bring about changes in the workplace so that people's health at work can be improved.

The concept of occupational health psychology has emerged from a set of interdisciplinary scientific contributions i.e. from medicine, psychology and engineering. Within the 'Preventive Medicines' and public health tradition our concern is with how people feel the burden of suffering and what steps need to be taken for creating psychologically healthy workplaces. The science of 'Psychology' closely follow preventive medicine and is concerned with human well-being. The main concern is

with industrial accidents and injuries which are relatively common features of the early years of Industrial Revolution.

The third stream which contributed to the current framework of occupational health psychology is the 'Engineering field', which is an applied science of physics, matter and motion. Industrial engineers used the principles of scientific management (F.W.Taylor 1911) to transform the work environments into more conducive ones.

Self Assessment Questions

- 1) Identify the fields which have contributed to health psychology and briefly explain their contribution.

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1.2.1 Preventive Medicine in Organisation Context

The human life expectancies has seen a dramatic rise due to the importance placed on public health and preventive medicine. The scope of preventive medicine included occupational health psychology (OHP) hazards such as noise, musculo-skeletal disorders and industrial accidents. Besides these the Behavioural factors affecting health, such as social relationships, violence and substance abuse were also included. Over and above these, the sickness absence is another importance aspect of OHP.

The three key concern of public health and preventive medicine are:

- 1) Active and passive surveillance mechanisms that lead to early identification of health problems or disorders.
- 2) The identification of health risk factors.
- 3) The development of intervention and treatment strategies for those who are suffering from stress.
- 4) The treatment is planned through preventive stress management techniques including the primary, secondary and territory prevention.

The importance of establishing good occupational health and safety standards at work are for the following reasons:

- 1) Moral: An employee should not get injured or risk death at work nor should the others who are associated with the same work environment.
- 2) Economic: Governments of different countries have now realised that poor occupational health and safety performance at work, results in cost to the state in the form of social security payments to the incapacitated, costs for medical treatment and the loss of the "employability" of the workers.

Employing organisations also have to sustain costs in the event of an incident at work, such as legal fees, fines, compensatory damages, investigation time, lost production, lost goodwill from the workforce, from customers and from the wider community.

Thus occupational requirements need to be reinforced in civil law and / or criminal law.

Many a time it is seen that without the extra “encouragement” of potential regulatory action of litigation, many organisations would not act upon their implied moral obligations.

Occupational Safety and Health Act (1970) (OSHA) has made a dramatical change in the role that the management should play in ensuring that the physical condition at work are meeting adequate standards. The main aim of OSHA is to alter the organisation’s health and safety programmes.

The OSHA legislative established a comprehensive and specific health standards, authorized inspections to ensure that standards are met. This empowered OSHA to see that the organisations complied with the legislation.

It also enforced the employees to keep records of illness and injuries and calculate accident ratios.

1.3 FUTURE DIRECTIONS IN OCCUPATIONAL HEALTH PSYCHOLOGY

The four positive advances that we envision emerging from the present work in OHP are:

- A greater emphasis on positive health.
- The emergence of positive forms of leadership.
- A renewed interest in mood and emotion.
- A push for preventive intervention.

Let us deal with each of these in detail.

Positive health

Researchers and health practitioners defined health as the absence of negative states as opposed to the presence of positive states.

According to them psychological well being encompasses six components i.e.

- i) autonomy
- ii) personal growth
- iii) mastery of the environment
- iv) positive relationships with others
- v) purpose in life and
- vi) self acceptance.

Extending the ideas of positive health and positive psychology, Luthan (2002) has given the concept of positive organisational behaviour (POB) i.e. building human strengths at work.

Leadership

It is a well known fact that leadership is the most important issue in the human

sciences. It has been found that leaders can influence outcomes such as health and happiness at work. One of the important roles a leader should play is to encourage employee well-being and creating and sustaining healthy organisations. When both, leaders and the followers become aware of themselves (self awareness) and cultivate self-regulated positive behaviours it reflects that there is an automatic leadership. Authentic leaders express their true selves and display hope, optimism and confidence and they place unconditional trust on the part of the followers. They also show positive emotions, and self determination and are highly concerned about the development of the followers.

Studies have shown that when a leader displays the above behaviours it averts adverse health effects and extremely stressful environment and helps the employees to become more engaged in their jobs.

Moods and emotions

Mood and emotions also have a central role in Occupational Health Psychology. Positive mood creates a better immune system functioning and brings about high performance at work. Negative mood is related to ill health. Perceived organisation politics can have adverse affect and can be positively related to depressed mood at work among workers. Research has shown that individuals who believe that work demands suppress their work performance or when work demands leads to bad moods, there is more likelihood of experiencing unpleasant moods on the same day.

Emotional labour or emotional work is managing emotions for the sake of wage. There are also linked with individual's well being or organisational well being. When individual's are able to regulate their emotions they experience less burnout and more job satisfaction. Emotional intelligence or emotional competency has been considered as an integrated set of affect related skills at work and serve as buffers in the relationship between emotional labour and employee's well being.

Preventive interventions

The health and well-being programmes have been popularised of late through different methods of prevention among the general population and the working population in organisation. However, research has not come up with any well designed prevention and intervention techniques. Some attempts have been made to involve employees into their work situation (quality circles and other employee participation programmes), but time and again it has been proved that only the employees are the people who can improve their own job conditions. In other words, no amount of external directions or attempts will bring about a change in their mental health unless the employees willingly involve themselves into their work (intrinsic motivation).

Since the definition of health is aiming at holistic development and positive outlook, intervention should target the enhancement of individual strength that promote overall well-being and individual states that promote health.

1.4 EXPANDING THE VISION OF OHP

The changing nature of organisations and workers are the most important aspects for the change of the health status in today's organisations. The technology, virtual work, globalisation and the aging of the work force are the new horizon which are contributing significantly to occupational health. That is why this concept is evolving continuously as a field of study.

1.4.1 Technology

The growing dependence on information technology and the decreasing amount of human interaction have become major concerns these days. The rapid pace of technological changes has resulted in many expected and potentially problematic outcomes. There are many negative physical and psychological health consequences due to working with technology.

In the present day working conditions, there is an increasing rate and quantity of information, which are to be managed by the workers. Added to this is elimination of time and space barriers. Anyone at any time from any part of the world could be reached easily thanks to information technology. These create high stress on individual and have negative outcomes. Workers are having 24 hours workday because of technology. Thus the changes in the way people work and how it impacts the health has become a key area of study for the future.

1.4.2 Virtual Work

This is another potential area of study of OHP. Although the benefits of virtual work are well accepted, it also has a unique set of challenges from an occupational health perspective. Every individual needs some amount of interpersonal connectedness for good health and well-being, which is not possible with virtual work as people are way apart and located all over the globe and are connected only through computer terminals. Most of the time, they do not have face to face contact and thus may experience social isolation and loneliness, which can become risk factors for cardiovascular health. However, research has shown mixed results of the effect of virtual organisations.

1.4.3 Globalisation

The impact of cultural differences related to work values, dress code, language, religion, training needs and leadership attitudes toward diversity are some important topics which can be studied under globalisation. Besides this, the cultural differences also have an impact on health, stressors and the ability to overcome them. Health and safety are also certain issues which can be considered. The next issue is the selection of workers, which can have a huge impact on the individual and the organisational success.

1.4.4 Aging

This is another important concern of occupational health research. The aging population has become a new challenge in many organisation. The age wave referred to as the demographic transition, is the rapid aging of the developed and the less developed world's populations. Along with aging the population is living healthier lives and the expectation is that the average age of the workforce will continue to increase. Thus, research can be planned for studying early retirement and ageism. The impact of these two variables on OHP can be considered.

1.5 PSYCHOLOGICALLY HEALTHY WORKPLACE

As we have seen, OHP emerged from preventive medicine, psychology and engineering with an aim of either preventing health problems or helping to repair the damage. Thus prevention and treatment are only two of the missions of psychology. The emergent third mission is to build upon the strength factors which is the present attempt of psychology which is called the Positive Psychology Movement.

Thus four guiding principles of organisational health were put forth by Adkins et.al (2006) and these were as given below:

- Health exists on a continuum of morality to vibrant well-being.
- Organisational health is a continuous process, not an obtainable state.
- Health is systematic in nature and results from interconnections of multiple factors.
- Organisational health relies on fulfilling relationships that are achieved through communication, collaboration, and relationship building actions.

From the above one can delineate the guiding principles for healthy organisation. For instance, Granitch et.al (2006) set forth practices called as the PATH (Practices for Achievement of Total Health). This contained the following:

The PATH model originates in healthy workplace practices, which are proposed to positively impact on both employee well-being and organisation's improvement and provide for the interaction of these two variables.

1.5.1 Healthy Workplace Practices

This model identifies five categories of healthy work place practices, viz., (i) work-life balance, (ii) employee growth and development, (iii) health and safety, (iv) recognition and (v) employee involvement. All these categories have a specific and varied positive impact upon employee well-being and organisational improvement.

1.5.2 Employee Well-being

It is the physical, mental and emotional facets of employee health, though there is no general agreement on the best indicators of it. In the PATH model, the authors have shown the indicators as: physical health, mental health, low stress, high motivation, high commitment, high job satisfaction, high morale and positive climate.

1.5.3 Organisational Improvement

The authors of PATH model note eight illustrative organisational improvements, viz., (i) competitive advantage, (ii) performance and productivity, (iii) reduced absenteeism and turnover, (iv) reduced accidents and injury rates, (v) increased cost savings, (vi) hiring selectivity, (vii) improved service and product quality and (viii) better customer service and satisfaction.

As a result of practicing the above principles, employees and organisations are likely to profit in psychological, medical and financial terms. Beyond the individual man and woman, it is essential for all of us to help build psychologically healthy workplaces, so that we can build a better society. Now we come to the point where we need to say that if occupational health is not nurtured properly at work place, it can lead to stress at organisations.

A large body of literature has been examined by various researchers to find the causes and consequences of stress. It has been also agreed by many that studies of occupational stress are important for several reasons, some of which are given below:

- To identify some of the most common stressors of every life.
- For providing additional evidence for the stress-illness relationship.
- To search for methods of alleviating stress by providing proper intervention.

Self Assessment Questions

1) Name the four guiding principles given by Adkins et.al to promote organisational health.

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2) What is PATH model? Explain.

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3) How do you ensure psychologically healthy work place?

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1.6 STRESS FACTORS IN ORGANISATION

In this section we shall cover two general types of stressors:

- 1) those that have been commonly studied or have received considerable attention in the occupational stress literature and
- 2) those that have not received much attention but have off late become the focus of attention.

Let us first go over the commonly obtained stressors: First is the role stressors

1.6.1 Role Stressors

Role stressors have been the most commonly studied stressor than any others. A 'role' is essentially a set of the behaviour that is expected of an individual. Most people have multiple roles (example parents, employee, student, and spouse) and it is quite understandable that people have multiple sets of role demands. In a complex social system like the organisation, roles play an important function of bringing about order and predictability to the individual's behaviour. At a micro level roles help the employees to gauge whether one is doing what is expected of them.

The employee receives the role related information through both formal and informal sources. The formal source of information is the written job description and the others are the verbal and written communication from one's immediate supervisor. This information may be limited in defining an employee's role. For example written job description are very general and become outdated and in addition the supervisor

may also not have the complete knowledge of a job and his/her communication may also not be precise.

Therefore to compensate for these limitations employees may look to informal sources which include informal interactions with coworkers at the same level, or with subordinates and sometimes with persons outside the boundaries of the organisation. (E.g. customers, suppliers etc.)

1.6.2 Role Ambiguity

When various sources of information are utilised in defining a role it is called a 'role set' which should be a smooth process wherein clear and consistent information is given to the employee. When role related information is unclear, it will lead to stress known as 'role ambiguity', where the employee is unsure of what he/she is supposed to do. This can manifest in a variety of ways like unclear performance standards, no clarity about scheduling and work methods etc. A common example of role ambiguity experienced by employees is how much of responsibility and initiative they are entitled to.

1.6.3 Role Conflict

The other common stressor is the lack of consistency in the role related information provided by members of an employee's role set. The result here is 'role conflict'. This usually is because of inconsistent information or conflicting demands by different members of an employee's role set. Sometimes the same individual within an employee's role set may be inconsistent with his information.

1.6.4 Role Overload

Another role stressor is the 'role overload' which occurs when an employee is demanded more than what he/she can accomplish in a given time. The employee may feel over loaded for two reasons. First the feeling of role overload may be due to the volume of work. i.e. A bank employee may experience overload when the financial year is coming to an end and the transactions have to be settled before the year end. Second, role overload may be experienced due to the difficulty of the tasks, i.e. the employee may not have the skills and capabilities to perform the job.

1.6.5 Workload

This is another type of common stressor which can be defined as the amount of work an employee has to do in a given period of time. However, it is necessary to distinguish between perception of workload and objective workload. For example two employees may have the same amount of work but perceive their respective workloads quite differently.

When we talk of workload we should also consider it from the angle of quantitative work and qualitative work. If it is just the volume of work we are talking about then a qualitative work is more stressful than producing the quantity of the required work.

1.6.6 Interpersonal Conflict

Since employees work together for the best part of the day, there is always certain amount of interaction with other people (e.g. coworkers, customers etc.). These social interactions are to a large extent sources of satisfaction and personal fulfillment. But sometimes they can end up in making work more stressful if interpersonal conflict develops. Interpersonal conflict can be defined as negatively charged interaction with

others in the workplace. These can range from something as minimum as momentary dispute over trivial issues to heated arguments and at extreme level can even lead to physical violence.

There are many potential causes of interpersonal conflict one of them is competition, wherein employees must compete for rewards such as pay raises, promotions or even budget allocation (i.e. one department receives more budget and another less). These can lead to high competition among individual employees and the departments.

Another factor can be rude behaviour on the part of employees, i.e. when one person tries to influence another through threats or coercion. If the targeted person retaliates then conflict will occur.

The next cause for interpersonal conflict can be that the behaviour is not intentionally directed at another individual but ultimately has a negative effect. E.g. (social loafing) one or more members of a work group do not contribute their share of work and the other members must put in extra work, this creates resentment toward the members who avoid work and this may lead to interpersonal conflict.

What is important over here is that the person who is not contributing may actually have no intention of getting away without doing the work. He / she may not realise that he/she is being perceived as a 'free-rider'. People who experience high level of interpersonal conflict at work may spend time ruminating over the past conflicts and worry about future conflict before they even occur.

1.6.7 Organisational Constraints

Although the organisation's success depends totally on the job performance of their employees, anyone who has worked in an organisation knows that organisational conditions do not always facilitate performance or they may even detract or constrain an employee from performing. Most of the time we see that employees get handicapped because of the unnecessary rules and procedures, lack of sufficient resources or interruptions from fellow employees.

Peters and O'Connar (1980) have used the term 'Situational Constraints' to describe the different organisational conditions which prohibit employees from performing upto their capabilities and proposed a classification system consisting of 11 different categories of organisational constraints. These include:

- Job related information
- Budgetary support
- Required support
- Time and materials
- Required services and help from others
- Task preparation
- Time availability
- The work environment
- Scheduling of activities
- Transportation
- Job related authority

The inhibiting effect on performance for any of these categories of constraints can be due to unavailability, inadequacy or poor quality of information to accomplish the tasks and hence, the employees' performance is constrained.

Research has indicated that organisational constraints are strongly related to negative emotional reaction like job dissatisfaction, frustration and anxiety.

Further, research has also proved that performance standards are very low by some organisation and if employees perform better, they do not benefit from it as there are no incentives to perform above these standards which would in turn demotivate an employee from showing good performance.

1.6.8 Perceived Control

Compared to other stressors perceived control is more general and can manifest in a variety of ways. The two most common ways in which perceived control manifests itself are through job autonomy and participative decision making.

When the employee has the discretion over how his/her jobs should be performed and over the working time he/she is said to have autonomy. Turning to participative decision making, the employee here is involved in taking decisions which are directly concerned with the employee himself. E.g. Labour management committees, quality circles, job-enrichment and other shared governance policies.

Research showed that employees who perceive that they do not have control over their work situations reported being emotionally distressed and experiencing physical symptoms, showed lower level of performance and were more likely to quit their jobs. In case of participative decision making, research showed that lack of participation lead to negative attitudinal reactions.

Self Assessment Questions

1) Identify the common stressors in workplace.

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2) What are the various role related stressors?

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3) What do you understand by interpersonal conflicts as stressors?

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4) What is meant by organisational constraints?

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1.7 CONTEMPORARY ORGANISATIONAL STRESSORS

The stressors which were discussed earlier are somewhat ‘timeless’ and have been present in the work place for many years and are likely to be present for some more time in the future. But the stressors covered under this section are relatively new and are due to the changes occurring in the recent trends. These contemporary stressors are work, family conflict, mergers and acquisitions, lay offs and job insecurity and emotional labour.

1.7.1 Work-family Conflict

The conflict which exists between the importance of work and family is definitely not a new stressor. But of late due to nuclear family setup and demands for parental care, or child care, today’s employees are experiencing more stress from the domains of family and work. At the same time source of support that was previously enjoyed by people is not available presently.

A distinction has been made here between work-family conflict and family-work conflict. The first occurs when the demands of work interfere with one’s family responsibilities like an unexpected meeting late in the day can prevent a parent from picking up his/her child from school. The second occurs when the demands of family interfere with the work responsibilities, example when a parent needs to leave his/her work in order to take care of sick child or parent.

Another distinction that can be made in the work-family conflict is between the ‘time-based’ conflict and the ‘stress based’ conflict. In the time-based conflict the demand for time in one domain makes it more difficult to attend to one’s responsibilities in the other, for example, Since the workweek of any employee is 40 hours per week, he/she is completely occupied from 9 am to 6 pm at the work which may interfere with the demands of the family. This is an example of time-based family-work conflict.

In regard to stress-based conflict, this would occur when the strain due to stressors in one domain would impair the functioning of an individual in the other domain, for example, if a person has a tremendous workload and is tense or anxious because of this, he/she may not have quality interactions with family members. On the other hand if an employee who is emotionally strained over caring for an elderly parent, may have difficulty in concentrating on work and his/her performance may suffer.

Research in this area has consistently shown that both work-family and family-work conflict were negatively associated with job and life satisfaction but work family conflict was more strongly correlated with both job and life satisfaction than with the family-work conflict. The major implication of this finding is that employees find it more stressful when their work is interfering with their family. Another interesting finding is that work-family conflict was more strongly related to job and life satisfaction

among women than it was among men, emphasising that despite the recent societal changes, women still take on a greater share of family responsibility than men do.

1.7.2 Mergers and Acquisitions

Mergers occur when two separate organisations combine to form one. An acquisition on the other hand takes place when one company procures the financial control of another company. The acquirers assumes a dominant role over the acquired.

Generally, it is difficult to distinguish between mergers and acquisitions. The acquiring organisation usually tries to convey the impression that the two organisations are equal partners. Looking at the stress related implications of mergers and acquisitions it is often found that employees are left with a feeling of anxiety, uncertainty and job insecurity. Not enough research is available in this area but companies which are engaging in mergers and acquisitions should make an effort in communicating to employees as much information as possible to lessen their stress.

1.7.3 Layoffs and Job Insecurity

This is another new trend and is somewhat different from the other stressors discussed earlier. Layoffs occur in an organisational context but the direct impact is felt outside the organisational context. When layoffs take place, the employees who are not laid off, have feelings of vulnerability and even guilt and may also experience an increase in workload because of the amount of work that is shifted to them.

Looking at how people who are laid off feel, research shows that job loss is strongly related to psychological strain such as depression and loss of self esteem. It also has an effect on physical health and mitigates reemployment. But it is also found that, suppose people who had been laid off, actively researched for job they fared better and coped well than people who avoided looking for work. An obvious reason is: Active coping is likely to speed up reemployment.

With respect to emotional reactions, research shows that people who survived a layoff will respond with less trust and commitment toward their employing organisation. The 'psychological contract' which exists between the employees and organisation may suffer a breach of confidence.

Another important issue which may crop up for the lay off survivors is to accept a job transfer that may require a relocation. This can be very difficult particularly for dual careers families. It can also have a negative impact upon the children of job insecurity parents.

1.7.4 Emotional Labour

The term emotional labour, initially covered by Hochschild (1979, 1983) refers to the emotional demands that employees face on the job. Emotional labour can take many forms, but two stand out as being particularly relevant to the study of occupational stress.

In the first form, employees are forced to confront negative emotions. Example is when an employee of a sales department must interact with a dissatisfied client or when a physician must interact with a grieving family.

In another form of emotional labour, an employee may be forced to suppress his/her true emotional stake and promote the goals of the organisation. Many occupations have their own 'display rules' that tell the employees what emotions should be emitted to the customer or the client. Employees who work directly with the public

encounter this type of situation every day. Example a receptionist, a air-hostess, a waiter etc.

Research provides evidence that the most common stress related outcome associated with emotional labour has been emotional exhaustion. However, research also points out that the relation between emotional labour and emotional exhaustion may be quite complex because when emotions have to be displayed and they are congruent with how an employee is actually feeling, this may not be very harmful. Example being cordial to a customer will not be difficult for a sales person who is in a good mood.

Stressful impact of emotional labour may differ depending on

- 1) the frequency of emotional display required
- 2) the extent to which an employee is required to strictly adhere to display rules and
- 3) the variety of emotional expressions required.

Most of the research available in this area is in the service sectors like call centers, where, the employee is heard and not seen. This induces the feeling of emotional labour when one had to keep a check on the voice while talking to the customers, even though one is experiencing traumatic condition at his/her end.

Self Assessment Questions

- 1) Recall the contemporary stressors at the workplace.

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- 2) Describe lay offs and job insecurity as stressor.

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- 3) What is emotional labour? How does it affect worker's performance?

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1.8 LET US SUM UP

Occupational health has emerged from three disciplines i.e. medical, psychology and engineering. Medical field has shown us how we can use preventive methods to overt ill health by maintaining hygiene and fitness and following good eating habits. Psychology

gives ideas of making the work environment conducive and less hazardous so that work can be enjoyable and engineering branch provides the necessary equipment in the most convenient way so that the worker need not feel tried and exhausted by operating on difficult tools and machines. This unit has also shown the various avenues where new research can be planned and suggested how an organisation can create a psychologically healthy workplace, the principles of which have evolved a PATH model for enhancing the employees well being and organisational improvement. Further this unit also examined the stress at workplace and have delineated the various stressors which are common and also contemporary in nature.

1.9 UNIT END QUESTIONS

- 1) Define Occupational health
- 2) What is the meaning of occupation health psychology? What are the disciplines which contributed to the study of OHP?
- 3) What are the changes taking place in the field of OHP today?
- 4) What are some of the commons stressors one comes across in the work palce?
- 5) What are contemporary stressors? Name a few of them

1.10 GLOSSARY

Preventive Medicine	: The word has originated from epidemiology which means, an epidemic which can spread speedily if not dealt with instantly. Some preventive methods would certain with spread.
Positive Psychology Movement	: It has been understood that it is not enough to prevent or repair the damage but to strengthen the person or the organisations to face and deal their own problem.
PATH	: Practices for Achievement of Total Health an attempt is made to positively impact both employee well being and organisational improvement through this model.
Emotional labour	: The emotional demands that employees face on the job which can create high level of stress in an employee.

1.11 SUGGESTED READINGS

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UNIT 2 OCCUPATIONAL STRESS, BURNOUT, HEALTH AND WELL- BEING

Structure

- 2.0 Introduction
- 2.1 Objectives
- 2.2 Occupational Stress
 - 2.2.1 Brief History of Occupational Stress
- 2.3 Definition and Approaches
- 2.4 Occupational Stress Models
 - 2.4.1 Institute for Social Research Model
 - 2.4.2 McGrath's Process Model
 - 2.4.3 Beehr and Newman's Facet Model
 - 2.4.4 Demand Control Model
 - 2.4.5 Person Environment Fit Model
 - 2.4.6 Comparison of Occupational Stress Models
- 2.5 Burnout
 - 2.5.1 Emotional and Physical Exhaustion
 - 2.5.2 Lower Job Productivity
 - 2.5.3 Over Depersonalisation
 - 2.5.4 Causes of Burnout
 - 2.5.5 Symptoms of Burnout
 - 2.5.6 Reducing Burnout
 - 2.5.7 Coping with Burnout
 - 2.5.8 Organisational Strategies
 - 2.5.9 Individual Strategies
- 2.6 Health and Wellbeing
 - 2.6.1 Work and Health in the Changing Economy
 - 2.6.2 Psychosocial Stress and Stressor at the Workplace
 - 2.6.3 Theoretical Models of Workplace Stressors and Health
- 2.7 Workplace Intervention
- 2.8 Let Us Sum Up
- 2.9 Unit End Questions
- 2.10 Glossary
- 2.11 Suggested Readings

2.0 INTRODUCTION

Individuals working in any kind of organisations in the present days are bound to experience some level of stress as the demands at the workplace are constantly increasing. The complexity of the jobs and the competition of the various products are placing high pressure on the employees to use more creativity and innovation which is leading to a feeling of Burnout which is a level of exhaustion. Burnout has adverse effect on the health of the employee. Employees are finding it difficult to cope though they are making immense attempts to safeguard themselves against stress and burnout. The time has come where it is not enough if the employees alone take steps to fight against the stress. The organisations should also find ways of sustaining the well-being of the employees. Intervention techniques have to be stringently employed to promote the workers physiological and psychological well being. In this unit we will be dealing with occupational stress, and the various approaches to occupational stress. We will then discuss the occupational stress models and compare them across the models. This will be followed by a discussion on burnout syndrome and the causes thereof as well as strategies for preventing the same. Discussing work and health in the changing economy we will be dealing with psychosocial stress and stressor and the theoretical models at the workplace. We will then elucidate the various interventions that could prevent as well as manage workplace stress.

2.1 OBJECTIVES

After completing this unit, you will be able to:

- Define occupational stress;
- Elucidate the models of occupational stress;
- Describe the effect of Burnout on employees;
- Explain how to cope with Burnout; and
- Analyse factors contributing to Health and Wellbeing in organisation.

2.2 OCCUPATIONAL STRESS

Research has shown that when an individual is consistently exposed to stressful work conditions it is harmful to him/her and it may have a negative impact on their efficiency and effectiveness. Organisational Stress plays an important role in negative outcomes such as increased healthcare costs, higher rates of absenteeism and turnover. It also contributes to increased number of 'on the job' accidents and reduced productivity.

There is an increasing trend toward job related workers compensation claim due to the harmful effects of occupational stress. In the past compensation for work related injuries was limited to physical injuries only, which could have been caused by some physical event or stimulus. However of late more and more countries are recognising the legitimacy of physical and even psychological injuries that may be caused by some stressful aspect of the work environment that is not physical in nature. (For e.g. an over demanding supervisor or even workload)

Occupational stress can have impact even on the society as a person who is experiencing constant stress on the job will not function effectively in other roles such as a husband or a wife, a parent, a neighbour and a community member. Though failing to perform these roles may not have a direct negative impact on economic cost, but will definitely have an effect on the society in one form or the other.

2.2.1 Brief History of Occupational Stress

A well known Psychologist Walden Canon who was a pioneer in the investigation of the relationship between emotions and physiological responses had also coined the word ‘homeostasis’. He was the one who conducted some early scientific investigations in the field of occupational stress and pointed out that the stressful condition on the job are typically perceived as aversive events that require some adaptive responses designed to return the employee to normal functioning.

However the first scientific investigation of stress are attributed to Hans Selye (1956) who developed the ‘General Adaptation Syndrome’ which consists of three stages: ‘alarm, resistance and exhaustion’.

In the ‘alarm stage’, the physiological resources of the body are mobilised completely to deal with an impending threat.

In the ‘resistance stage’, the body recognises that all of its resources may not be needed and mobilises only those that are necessary for dealing with the stressful situation.

In the ‘exhaustion stage’, when the organism finds that whatever it does, there is no difference in the situation and the body’s physiological resources are depleted, a second attempt to mobilising the physiological resources takes place. If this attempt does not neutralise the threat, it may lead to permanent damage to the organism or what is termed by Selye as diseases of adaptation.

Selye has mainly focused on the physiological reaction to aversive physical stimuli and he never attempted any research at the workplace. The first large scale research was undertaken at the University of Michigan’s Institute of Social Research in early 1960s. The most noteworthy contribution of this research is the focus on psychological factors in the workplace that may be stressful to employees. Psychological factors represent aspects of the work environment having to do with interaction with other people. The primary focus of Michigan researchers was on what they termed as “role stressors” which are aversive working conditions associated with behaviour, that is expected of each employee in an organisation.

After this research, not much work was done on this concept in the Late 1960s and early 1970s. However, Terry Beehr and John Newman have done a comprehensive review and analysis of the occupational stress literature and published in the Journal of Personnel Psychology in 1978. This compilation is generally regarded as an important scholarly work and has been frequently cited. Their work actually altered many organisational psychologists views and pointed out that occupational stress was an issue which is worthy of attention. After this, there was a steep increase in the research of occupational stress.

Self Assessment Questions

1) What is meant by occupational stress? Explain with suitable examples.

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2) Give a historical account of occupational stress and the research in this area over a period of time.

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3) In about five lines explain about the general adaptation syndrome.

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2.3 DEFINITIONS AND APPROACHES

Over a period of time, researchers from various fields have evinced interest in the field of occupational stress and an abundance of research was contributed from various professional streams. To capture the interdisciplinary nature of the occupational stress, Beehr and Franz (1987) proposed that occupational stress can be approached from four different perspectives:

- 1) Medical
- 2) Clinical/Counseling
- 3) Engineering Psychology
- 4) Organisational Psychology

Let us take up each of the above and discuss in detail.

The distinguishing feature of ‘medical approach’ to occupational stress is a focus in the contribution of stress in the workplace to employee’s health and illness. Most of the research done in this area is by physicians, nurses etc. and when seen from this perspective the stress at work is considered as a pathogenic agent that contributes to disease conditions.

The ‘clinical counselling approach’ to occupational stress emphasises the impact of stressful working conditions on mental health outcomes like depression and anxiety. According to Beehr and Franz (1987) this approach focuses more on treatment than on research. In other words, they focus more on developing methods to relieve stress related symptoms and therefore more often the researchers are from clinical or counseling psychology background.

The ‘engineering psychology approach’ to occupational stress focuses on the sources that originate from the physical work environment. These include, work schedules, pace of work, or the designing of the employees work stations. The emphasis is more on physical environment as a source of stress, that is the interface between employees and the physical environment (also termed ‘human factors’).

An example of this is the height of the tables, the length and heaviness of the tools or the placing of switch boards and other knobs etc. which are frequently used by

the employees. They should be placed in such a way that there should be least exertion on the senses and body parts of the employee.

The 'organisational psychology approach' to occupational stress focuses on what were previously defined as psychosocial sources of stress in the workplace. This implies two things: one the focus is on cognitive appraisal or the process by which employees perceive the work environment and decide whether it is stressful or not.

Second is, the sources of stress when employees interact with others. If these interactions are forceful and unpleasant, people experience stress and this affects the overall organisational effectiveness.

2.4 OCCUPATIONAL STRESS MODELS

To guide both research and organisational efforts and to reduce stress some theoretical models of occupational stress have been developed, which are as given below:

- Institute of Social Research (ISR) Model
- McGrath's Process Model
- Beehr & Newman's Facet Model
- Demand-Control Model
- Person-Environment Fit Model

2.4.1 Institute for Social Research Model

It is an offshoot of the research conducted at the University of Michigan's Institute for social research over a period of time. It is known as ISR model of occupational stress mainly because the researches were conducted at the Institute of Social Research of the Michigan University.

This model begins with the objective environment which essentially includes anything in an employee's work environment like the number of hours worked, the amount of responsibility, the extent to which interaction with others is required and so on.

The next step in this model is labeled the psychological environment. The employee here is perceiving the objective environment and appraising and making judgements as to whether it is threatening. This is the key component of the organisational psychology approach. Once the environment is appraised, the result may be immediate and it can be physiological, behavioural and emotional response on the part of the employee.

Physiological changes that are commonly evolved by stressful situation are increase in heart rate, blood pressure and respiration. Immediate behavioural responses could be decreased effort or an inability to concentrate and emotional responses may include increases in both anxiety and depression symptoms and a decrease in job satisfaction.

Depending upon the severity and duration of the immediate responses, the result may be adverse change in mental and physical health.

Then next component in the ISR model is the impact of individual differences in all the process of the model. People obviously differ in their genetic makeup, demographic characteristics, personality traits and the quality of interpersonal relationships with others. Any or all of these may impact the manner in which people perceive the

objective environment, their immediate response to perceived stressors and ultimately whether stressors lead to adverse mental and physical health.

The model has served as a conceptual guide for many researches of organisational stress, and therefore it has been quite influential. There are some weaknesses of this model, like its generality and simplicity. Some of the important arguments can also be that certain variables and processes have not be explained like, accounting the employees effort to cope with stressors, or acknowledging that stressors may impinge on the employee from outside the organisation.

2.4.2 McGrath's Process Model

McGrath has proposed a theoretical model that focused on the performance related implications of occupational stress. This model conceptualises the stress process as a four stage, closed loop process.

The 1st stage represents situations that employees encounter in organisations. Then they are perceived as a cognitive processes and when these perceptions are negative, this signals the presence of stressors.

In the next stage, the model proposes that after a situation is appraised, the individuals make decisions about how they will respond to the stressor. Once the decision is made, the individual engages in some form of overt behaviour. Sometimes this behaviour, may have negative implications for performance (e.g. reducing effort) though this does not happen always. For example suppose an employee is confronted with a stressor (e.g. conflict with a co-worker) he may choose a more adaptive response (e.g. talking rationally to the person) and alter the situation in a favourable manner.

There are some positive features to this model and the most important among them is the recognition that responses to stressors involve conscious choice on the part of the employees. As McGrath has incorporated decision making in his model he was considered as a person who is ahead of this times.

2.4.3 Beehr and Newman's Facet Model

This model proposes that occupational stress process can be broken down into a number of 'Facets' that represent categories of variables to be studied.

The Personal facets represents the stable characteristics which are brought to the workplace by the employees. The variable here are of demographic characteristics (like age, gender, race) and personality.

The environmental facet, in contrast, represents the stimuli in the work environment, which the individual employee must confront. These include characteristics of the work performed (e.g. Level of complexity) as well as the nature of job related interpersonal relations.

The next is the process facet at which the person's and the situation's characteristics interact. This is the point at which the employee appraises the work environment and decide whether it is harmful or not.

Once the environment is appraised and the employee perceives stressors to be present, there may be a variety of consequences for both the individual employee and the organisation as a whole. Thus the 'human consequences facet' represents the different ways, in which employees may respond to stressors, and which can have

implication for each individual employee (e.g. health problem, substance abuse etc.).

In contrast the “organisation consequences” talks about how an employee’s responses have implications for organisational functioning (higher rate of absenteeism and turnover).

Depending on what outcomes the individual organisation will have, some response will be required and this is called the Adaptive response which calls for efforts on the part of the individual and organisation to respond adaptively to stressors.

An adaptive response of an individual could be exercise when he /she feels tense or anxious. On the organisation side, it may attempt to institute flexible work hours if it finds that there is increased absenteeism of the work force.

The final facet in this model is the “Time”. This facet has an impact on all the other facets. The time facet recognises that the employee’s appraisal of the environment to determine what aspects are stressful and responding only to them, are set in temporal context (for e.g. finishing a product at a targeted date. This is temporary stress and will pass when the work gets completed with a small delay). In some cases, this process can be very short or it can occur over a period of several years.

2.4.4 Demands Control Model

This model was proposed by Robert Karasek in the late 1970’s and has limited scope than the other models. According to him, when employees face heavy Job demands and have little control over their work, it is the most stressful situation in the workplace. Karasek (1979) has used the term ‘*Job Decision Latitude*’ to denote control over the work situation. The best example for the model is the typical work in the scientific management wherein the employees were provided with challenging goals, in the form of production standards, but did not have control over things, such as the design of work, methods and the scheduling of rest breaks.

Research using this model has examined health and physiological outcomes and some other research has investigated psychological outcomes which have shown the limitations of this model. However the recent tests of Demand Control model have shown that the interaction between Job demands and control may be more complex than what was originally proposed by Karasek as some researchers found that they could predict higher level of blood pressure among employees who reported high self-efficacy. This suggests that having control over one’s work tasks is helpful to an employee, only if he or she feels able to perform those tasks (i.e. has high self efficacy).

2.4.5 Person Environment Fit Model

This is another model of occupational stress which has great implications for many organisational phenomenon. The historical roots for this model can be traced back to Kurt Lewin for his interactional psychology. As you may remember, Lewin believed that human behaviour is a function of interaction between the person and his environment. Therefore the most important aspect to organisational stress is the degree to which there is a fit between the person and the situation.

Suppose the employee perceives that the work environment is stressful then there is a lack of fit. The general idea of this Person Environment fit is very simple but there are many ways in which fit and misfit between an employee and the work environment can occur. According to Kristof (1996) fit or misfit can happen, when the employee’s

skills and abilities match or do not match the requirements of the job he or she is performing. Suppose an employee lacks the skills and abilities to perform the job, he / she will feel inadequate or when he/she has good skills and abilities and the job requirements are not upto his/her capabilities, there too an employee can end up getting bored, frustrated and dissatisfied with the job. In either of the cases, the employee will perceive the job as stressful.

The concept of Person environment fit or misfit can also occur at the macro level of analysis. For example suppose the employee places a high value on individual accomplishment and the organisation in which he works values teamwork, working in such an environment can be very stressful to the employee.

This approach is found to be quite useful to occupational stress researchers and over the years many refinements have been made in this area.

The major limitation of the Person Environment fit approach is that compared to the environment component, the person component has been studied and measures have been researched to reduce employee stress. Not much work has been done in attempting to measure and find organisational characteristics and thereby bring about the required changes.

2.4.6 Comparison of Occupational Stress Models

After going through the occupational stress models, some comparisons of the relative merits of each model is made. In terms of usefulness all the models score well on it. However the ISR model and Beehr & Newman Facet model have greater scope for research because these were found to be relatively easy to use and clarify the focus of a stress related organisational intervention.

The demands-control model has received the most empirical scrutiny but the results have always been mixed. This may be due to the fact that the conditions under which demands and control interact are very complex.

The P.E fit approach has also received quite a fair amount of empirical testing, but the research has not been much in the context of occupational stress.

Self Assessment Questions

1) Describe in detail the Institute of Social Research model.

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2) What is McGrath's Process Model? Explain.

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3) Discuss Beehr Newman's Facet Model in detail.

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4) Discuss demand control model in terms of occupational stress.

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5) Discuss briefly the person environment fit model of stress in occupations.

2.5 BURNOUT

A specific form of employee stress is burnout over the years they have been many attempts to define Burnout, but only in the year 1982 a proper definition could be given by Malasch. Burnout is a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that can occur among individuals who do people's work. i.e. people in service oriented organisations such as teaching, health care, police or military services banking insurance etc. It is often the most conscientious employees who suffer burnout syndrome. Their loyalty and commitment make unreasonable demands upon their time and energy. Their adherence to these demands reduces the boundaries between life and work to such an extent that they live to work. But, in return there is usually no recognition for their high involvement with work, which leads to a sense of burnout. Sufferers lose their sense of care for their co-workers, become cynical, defeatist and disillusioned and experience a deep sense of failure and this leads to a high level of stress. This further leads to a feeling of low self-esteem and low self efficacy.

Burnout as this definition views, is a function of following three concerns, viz.,

- i) Emotional and physical exhaustion
- ii) Lowered job productivity
- iii) Over depersonalisation

Let us deal with each of these in detail.

2.5.1 Emotional and Physical Exhaustion

This is an inner condition caused by various personal and organisational factors. Personal factors are marital, legal or financial problem. These issues can become so important in the life of a worker that there is a good chance of giving up or resigning to them. i.e. worker begins to feel helpless, losses sight of reality and there is a change in his / her behaviour. When these problems take their toll on the workers they begin to feel inadequate in handling their personal situation.

2.5.2 Lowered Job Productivity

This can be a cause and also a result. Workers generally like to produce. When workers are busy, they feel they can achieve positive results, salary increases, recognition, advancement etc. Then the work that is being done does not feel burdensome. The workers are motivated by the challenge.

In contrast, when some constraints and demands emerge and lower the productivity then problems occur. These constraints and demands impinge on the workers' welfare and make them less productive, less happy and less motivated.

2.5.3 Over Depersonalisation

With the technological advancement, most of the jobs are becoming automated. This dehumanizing aspect coupled with many rules and regulations are causing undue hardships on the remaining workers, and is leading to reduced interpersonal relationships.

This is causing early burnout of workers.

However, it is important to notice that none of the concerns have referred to long term boredom as a true reason for burnout.

Burnout was also defined as the unreleased stress and its physiological activation. What was once a high useful mechanism has become maladaptive.

Self Assessment Questions

1) Define the term Burnout and name the three main concerns.

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2.5.4 Causes of Burnout

Generally the factors contributing to burnout can be identified as:

- Organisational characteristics,
- Perceptions of organisation
- Perceptions of role
- Individual characteristics
- Outcomes

These variables can lead to burnout, but the presence of any of them does not guarantee that burnout will occur. It is the individual's capabilities to work under and handle stress that determines whether one would experience burnout or not.

Because of this contingency, stressful conditions result in a two-phased outcome. The first level being the stress itself and the second level being the problems that crop up from the manifestation of this stress.

Variables found to be significantly related to Burnout

Organisation Characteristics	Perceptions of organisations leadership	Perceptions of Role	Individual Characteristics	Outcome
Caseload Satisfaction	Formalisation	Autonomy	Family/friends Support	
Turnover rate	Communication	Job Involvement	Sex	
Staff size	Staff support	Being supervised	Age	
Administrative support	Peers Clarity Rules and procedures	Work pressure Feedback Accomplishment	Tenure Ego level	
	Innovation	Meaningfulness		

Source: Baron Perl man and E.Alan Hartman, "Burnout: Summary and Future Research, "Human Relations, 25, No.4 (1982), 294. Reprinted by permission of Plenum Publishing Corporation.

2.5.5 Symptoms of Burnout

When stress reaches the optimum level i.e. when the individual cannot handled it any longer and suffers from its effects, severe changes start appearing. These can be in the form of health, attitude, emotions or the relationship with others. Moreover there can be adverse changes in the behaviour like alcoholism, substance abuse etc. Thus burnout is a multifaceted phenomenon and is a by product of both personal variables and organisational variables.

2.5.6 Reducing Burnout

Organisations are consistently attempting to reduce the stress levels of employees by establishing proper procedure, before the workers get burned out. Although, so far, no clear cut remedies are available. Some techniques have been proposed.

Identification: The analysis of the incidence prevalence and characteristics of burnout in individual, work group, subunits or organisations are done to obtain indices of stress and burnout.

Prevention: This is an attempt to mitigate the burnout process before it begins.

Mediation: This is a procedure for slowing, halting or reversing the burnout process.

Remediation: There are some techniques for people who are already burned out or are rapidly approaching the end stage of this process.

The above four techniques are coupled with the four specific areas of concentration to obtain a 4 x 4 matrix. This matrix design specifies as to which techniques best fits which level of burnout. The following figure shows how burnout intervention works.

Goal of Intervention				
Site Intervention	Identification	Prevention	Mediation	Remediation
Personal Individual	Self-evaluation	Professional	Stress	
Counseling Orientation	Evaluation	↔ training/	↔ Management	↔
Interpersonal	Peer feedback	↔ Supports Groups	↔ Creative Supervision	↔ Group Counselling
Workplace Job/career	Formal surveys	↔ Professional Development	↔ Job redesign changes	
Organisational Employee	Performance	Organisational	Quality	
	Monitoring	↔ development	↔ assurance	↔ assistance

Source: Whiton Stewart Paine, ed. Job Stress and Burnout (Beverly Hills, Calif.: Sage Publications, © 1982), p.20, Reprinted by permission of Sage Publications, Inc.

The key point here is that only after making an accurate identification of the level of burnout, the programme is tailor made to meet the individual need. However, the changes do not concentrate only on one factor. Any change planned for one area will invariably effect other areas. Therefore new training programmes have to be developed and implemented to enable the changes to occur.

Thus, Burnout is a costly affair for any programme to help alleviate these problems. Most of the programmes attempt at doing two things: i.e. increase productivity and make the job more pleasant for the worker.

To this end organisations are making efforts to systematically study each job and redefine it in such a way that if proper equipment and working conditions exist, a more productive work force will result. But to bring about these changes a great amount of effort is required on the part of the personnel. They have to see that the compensation for these new jobs is competitive and equitable. Therefore new job description have to be written and systematic process of job evaluation have to be done. Training becomes a compulsory process, to help employees adapt to their new endeavours.

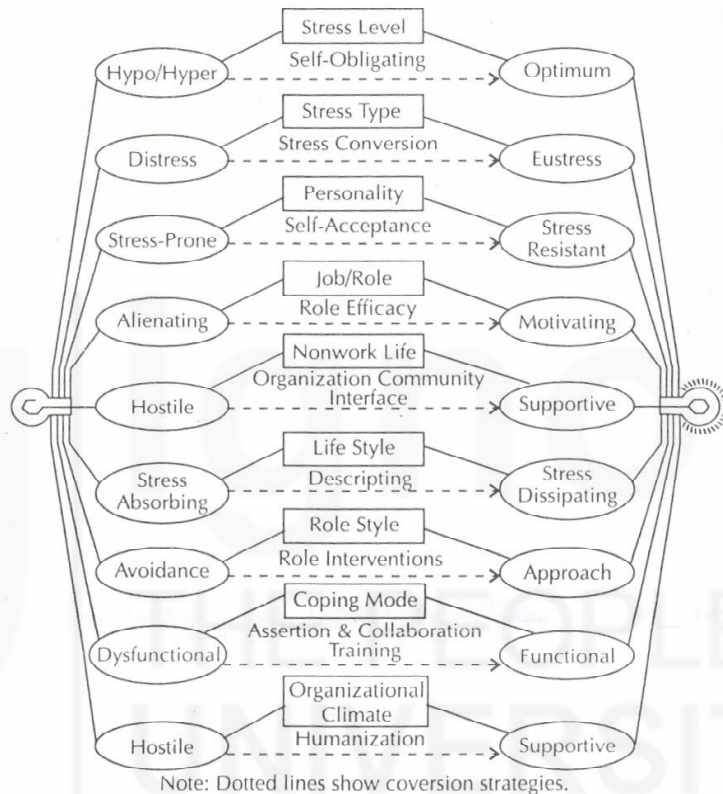
Finally, some programmes which help in reducing the stress must be offered to the employees like diet control, aerobic exercises, health screenings, smoking cessation and assistance to 'look off' from drinks and alcohol addictions. Some progressive companies are putting these practices to use are dealing with stress in a proactive way rather than in a reactive way.

2.5.7 Coping with Burnout

Pareek (1994) has likened stress to the electricity and the person to electric bulb. If the voltage is low (i.e. work underload); the bulb will not glow. If the voltage exceeds the capacity the electricity can burn out the bulb. It is only when the voltage

is just right (optimised stress) for the bulb it will function with maximum efficiency.

Since burnout is defined as the end result of stress experience an individual should attempt to handle it adequately i.e. channelise it well stress should be taken as a challenge. An employee should search for methods to overcome it, only then he can have job satisfaction, become creativity and make better adjustment to life and work. A phenomenon know as ‘glow up’ has been given by him in contrast to burnout. He says that being aware of the factors which contribute to burnout can help us to avoid this stage. It will help us understand how we can convert the energy to lead to glow up. The figure given under will show factors producing burnout and glow-up and the conversion strategies.



Executive Glow up and Burnout: Contributing Factors and Conversion Strategies

(Source: U. Pareek, 1994, *Making Organizational Role Effective*. © 1994 by Tata McGraw-Hill Publishing Co. Ltd., New Delhi. Reprinted with permission.)

2.5.8 Organisational Strategies

How organisation can help overcome burnout: “Organisational strategies”.

Burnout and creative supervision: Research has shown that burnout is caused due to the interaction between intra-individual sources and intra-organisational sources. The role of the supervisor becomes very important here as he/she has a great potential for reducing stress and building health. Work related skills and self esteem can be promoted by the supervisor and he / she can also encourage peer support and improve the communication channels.

Unfortunately, many supervisors are found not to have proper supervisory knowledge and skills. They themselves do not have proper role clarity and end up experiencing role stress. If they can overcome their own problems, they can use their creativity to help the worker overcome his / her problems by:

- i) **Facilitating communication:** Here the misunderstandings and rumours can be removed. Most employees play organisational games which can deplete their emotional and mental resources and in turn reduce productivity. A supervisor can enhance the productivity with straight forward and open communication. He should adopt assertive communication which helps him express his thoughts, feelings and beliefs in direct, honest and appropriate ways.
- ii) **Evaluation:** Since it is the supervisor's prerogative to evaluate employees' performance, employees are usually wary of him / her. A creative supervisor should use proper methods of evaluation and gain the confidence of the employee. This in turn will build new skills in the employee instead of being afraid of the evaluation process.
- iii) **Decreasing job pressure:** As one of the major reasons for burnout, creative supervisor should sort out the duties of a subordinate so that the jobs can be handled properly. Many a times, the employees do not possess the knowledge and skills to perform all the jobs. Therefore he / she should use mentoring and help the employee to prioritize and enjoy doing the work.
- iv) **Creating channel for peer support:** The most essential factors for employees are the kind of emotional dependence and social support they experience. Therefore the supervisor can encourage team work instead of dealing with them individually.
- v) **Dealing with the personal problems of the employees:** All most all workers have some personal problems. A supervisor who is empathetic towards the subordinates understand and help them to overcome the problems present in his work situation and can develop proper methods to cope with them and tackle the problem of burnout easily.

2.5.9 Individual Strategies

- i) **Listen to one's body:** With some amount of tuning into their body needs people can easily recognise the symptoms like chronic fatigue, tense muscles, depression and lethargy which give the message that the body cannot take it any longer.
- ii) **Take control of one's stress perception:** one should not blame the external environment / situation for their stress. One has to accept that it is one's own perception which makes one stressful. One should develop the attitude that, one can strive hard to change the unpleasant stresses and realistically accept those that cannot be changed. Besides this one should also be able to recognise what they can change and what cannot be.
- iii) **Lower one's expectation:** People should be able to recognise their capabilities and strengths and set goals accordingly. One should not set goals which are not obtainable and feel as a failure. We should also lower our expectations of other people, which will make us emotionally detached. The most important way of dealing with burnout is take control of the condition.

Self Assessment Questions

1) Explain how the organisation can safeguard an employee against burnout.

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2) What are the ways in which one can control burnout?

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3) What are organisational strategies?

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4) What are individual strategies?

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2.6 HEALTH AND WELLBEING

For most people, work is the primary source of income. At workplaces people are exposed to physical hazards like toxins, noise or ergonomic misfits. Besides these the psychosocial hazards like the experience of loss of control, humiliation, failure or unfair treatment cannot be ruled out.

2.6.1 Work and Health in the Changing Economy

So far the occupational safety and health research has been primarily concerned with injury prevention and physical hazards at the work place, but off late the focus is on the psychosocial conditions of workplace, which are of great importance in a changing economy. The new economic developments like downsizing and outsourcing have led to intensified work and the societies are now recognising that stress levels at the workplace are constantly increasing.

2.6.2 Psychosocial Stress and Stressors at the Workplace

The definition of the term stress needs a little clarification here because a psychosocial ‘stressor’ at the workplace is a factor in the work environment which by itself or in combination with other factors has a potential negative effect on the worker. These factors could be unrealistic workload, time pressure, high emotional demand, lack of job security etc. A person would show stress reactions when these factors are difficult to control and if exposure to them are chronic. These stress reactions have the potential of creating severe psychological and physical health problem which get manifested in the form of cognitive, emotional, behavioural and physiological dysfunctions.

2.6.3 Theoretical Models of Workplace Stressors and Health

There are two theoretical models: i.e. Demand-control-support model developed by Karasek and the effort-reward imbalance model developed by Seignist.

Demand-control-model

In this model it is assumed that job strain increases the risk of psycho-physiological stress reactions and subsequent ill health especially cardiovascular disease. Further, if an individual is also exposed to low social support from coworkers and supervisors, a three way health hazardous interaction of high demand, low-decision latitude and low support is assumed, which is called as iso-strain.

In the next model i.e. effort-reward imbalance model there is a mismatch between high effort and low reward and leads to stress reactions and disease.

There is a third variable in this model which is called a “work related over commitment” which is a personality aspect which makes certain individuals more vulnerable to experiencing psychosocial stress reactions. These models have been extensively tested mainly for the cardiovascular disease and also for musculoskeletal and psychological disorders. Several studies have shown that exposure to job strain, iso-strain and effort-reward imbalance could result in increased risk of ill health. However, the results are not conclusive.

2.7 WORKPLACE INTERVENTION

There are three levels of workplace intervention. i.e. the individual level, the group and the organisational level.

At the individual level the intervention is through providing health education, using personal protective equipment. A workplace intervention programme that attempts to improve employee health behaviour is to advise the person to eat less fat, to do more exercise, to better cope with psychosocial stress. The work environment also tries to support this by providing low fat food choices in the cafeteria, limiting excessive overtime, some employees are given time to exercise, reducing exposure to psychosocial stressors.

As for Group intervention, the approach is one of helping employees and others to cooperate with others and ensure social support.

Organisational intervention refers to the improvement in working conditions and circumstances. Since these interventions focus only on the behaviour modification method, a broader and more comprehensive workplace interventions should be planned which address working conditions as a means of improving employee's health.

Generally organisation intervention are time consuming, expensive and difficult to design, control and evaluate. In addition a number of barriers have to be overcome, as they are viewed as interferences into the existing system of the company.

Thus to overcome these obstacles certain crucial factors have been identified which are felt as successful interventions. These are given below:

- i) Support from top management as well as relevant actors within the company like unions, employees, health and safety experts etc.

- ii) A clear determination of aims, tasks, responsibilities, planning and financial resources.
- iii) A detailed problem analysis in order to choose and plan the right intervention.
- iv) A strong focus on organisational changes complimented by person-directed measures.
- v) A participative approach (worker involvement during problem analysis and development of appropriate solutions).
- vi) A long term perspective that allows continuous improvement of the intervention measures.

2.8 LET US SUM UP

We have studied about the harmful effects that can impact a worker, when he/she is consistently exposed to stressful work situations. Five models of occupational stress have been discussed i.e. the IRS model the importance of the objective environment and psychological environment has been discussed and their effect on the worker has been shown in McGrath's process model the cognitive processes that takes place at work environment has been discussed and if there is a negative perception of the work environment, he says stress is experienced. In Behr and Newman's model, they say that occupational stress process can be broken down into number of facets and depending upon what outcome the individual and organisation will have, some responses are made which are called as 'Adaptive responses' to reduce the levels of stress. In the demand control model, the Job decision latitude has been emphasised which denotes the amount of control the individual will have over his work situation. Lastly the person environment fit models, shows us to how important it is to have a proper fit between the person and the environment if one should avoid the feeling of stress i.e. an employee should feel that the job is the best fit for him / her, if he / she should enjoy the work. Lastly the efficacy of the models have been discussed.

Our next focus was on burnout, which is an offshoot of excessive stress. Workers experience, emotional and physical exhaustion, give lowered job productivity and become depersonalised when they experience burnout. It is also found that people who have high aspirations and strong motivation are the ones who experiences burnout. The causes, symptoms, methods of reducing and individual and organisation coping methods have been extensively discussed and we turned out attention to health and well being wherein, the psychological stress and stressors at the workplace have been identified and how to intervene and promote health has been discussed.

2.9 UNIT END QUESTIONS

- 1) Define occupational stress. Trace the brief history of occupational stress.
- 2) Discuss the various Occupational Stress Models.
- 3) What do you understand by the term Burn Out? What are the symptoms of burnout?
- 4) What are the various methods by which one could manage burnout in a workplace?
- 5) Discuss the concepts of health and well being.

2.10 GLOSSARY

- Occupational stress** : Stressful condition at the workplace which can have negative impact on the effectiveness of the worker.
- Exhaustion stage** : The body recognises that there will not be any difference in the situation.
- Burn Out** : A stage beyond exhaustion, where the organism cannot handle the stress and severe changes in the person's emotions, attitudes and personality take place.
- Iso-Strain** : When there is low social support, a three way health hazardous interaction of high demand, low decision latitude and low support is assumed.
- Work related over commitment:** It is a personality aspect which makes some individuals more vulnerable to experiencing psychosocial stress reactions.

2.11 SUGGESTED READINGS

Agarwal, Rita (2001) *Stress in Life and Work*, New Delhi, Sage Publications.

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UNIT 3 THE AGING WORK FORCE, WORK HOURS AND SHIFT WORK

Structure

- 3.0 Introduction
- 3.1 Objectives
- 3.2 The Aging Work Force
 - 3.2.1 Age Diversity and Health
 - 3.2.2 Intervention
 - 3.2.3 Empirical Findings Regarding the Effects of Age Diversity in Teams
- 3.3 Work Hours
 - 3.3.1 The Most Popular Forms of Alternative Work Arrangements
 - 3.3.2 Flexible Work Schedule
 - 3.3.3 Job Sharing
 - 3.3.4 Telecommuting
 - 3.3.5 Benefit to Organisations
- 3.4 Shift work
 - 3.4.1 Examples of Shift Work
 - 3.4.2 Fire Fighting Schedules
 - 3.4.3 Graveyard Shift
 - 3.4.4 Industries
- 3.5 Health Effect of Shift Work
 - 3.5.1 Sleep Disturbances
 - 3.5.2 Disturbance of Eating Pattern
 - 3.5.3 Other Health Problems
- 3.6 Psychological Problems of Shift Workers
- 3.7 Performance and Safety in Shift Work
 - 3.7.1 Optimal Shift Work Scheduling
- 3.8 Selection of Shift Workers and Health Monitoring
- 3.9 Let Us Sum Up
- 3.10 Unit End Questions
- 3.11 Glossary
- 3.12 Suggested Readings

3.0 INTRODUCTION

As organisations are getting more and more complex there is an increasing need for employing more workers to handle the increasing load. Organisations off late are accepting a diversified work force, like people from different geographical locations, different cultures and ethnicity, women workforce, physically and mentally challenged people and aged workforce to work on suitable jobs. Besides the competitive edge of an organisation, individuals are also prepared to work beyond their retirement age for various reasons, and the most important amongst them is their sustained levels of energy thanks to improved medical aid and diet and fitness practices.

There are many advantages of employing aged workers as they have more experience, have different kinds of wisdom, more conscientious and less turnover. However when they have to work in a team, these virtues serve as some drawbacks, because the present day younger workforce are more forceful, enthusiastic, are go getters and risk takers, which may not be palatable to the older workers and they find it hard to adjust to this work setup.

In this unit, we will be also discussing about work hours, in which different methods of working hours will be presented under the heading of alternative work schedules. These alternative works schedule have come into vogue to ease the worker from the burden of working for long hours at the workplace with out being able to attend to other duties and responsibilities towards his / her families. When different options have to be proposed for the worker to choose from, it serves as one form of motivation, wherein, he / she could attend to the jobs and also be able to perform other activities in their free time.

Shift work has also been discussed in this unit. There is a slight difference between shift work and work hours, though to a large extent they over lap. Shift work is usually planned to benefit the organisation. In this system, the organisation is maximising its production using the same work space and equipment by employing 3 to 4 sets of employees to work in the organisaiton 24/7. However, there are certain difficulties that shift workers encounter if they are engaged in shifts which are at odd time, like late in the evening or night shift. It has long lasting effects upon the physiological and psychological health.

3.1 OBJECTIVES

After completing this unit, you will be able to:

- Define and describe Aging work force;
- Explain what is age diversity and its impact on the health of older workers;
- Describe work hours and the various alternative work schedules;
- Define shift work;
- Differentiate between types of shift systems;
- Analyse the health effects of shift work;
- Elucidate the Psychological aspects of shift workers; and
- Explain selection of shift workers.

3.2 THE AGING WORK FORCE

After the World War II, organisations have seen an increasing number of workers in the age range of 35 to 54 years old. There is a decline in the percentage of employees who are less than 35 years. A number of factors can be attributed to this trend.

- i) Decline in the birth rate post World War II
- ii) Improved health and medical care, which is helping people to live longer, leading more productive lives.

- iii) Removal of the mandatory retirement rules, which have allowed people who are capable to do work to continue working beyond their sixty years particularly where the jobs do not require strenuous physical performance.

The latest estimation reveals that in today's work force, the forty-five and above segment of workers represents about 31.6% of the total work force.

- iv) Shift from hard physical labour and agriculture to knowledge and learned skills which have taken over and completely replaced strain and endurance. Thus the older workers with their added experience and wisdom fit ideally into any kind of corporate sectors.
- v) Older employees did not have the kind of opportunities the younger generations have in terms of savings, life insurance, health insurance, pensioning and medical benefits. Due to poor saving rates and their own realisation that they need to earn for their survival they are taking up jobs as long as it is possible for them to work.

Organisations are now forced to accommodate the older workers into their milieu and make some amendments in managing them. Since aged workers are employed in bigger numbers in the organisations, HR managers find it problematic to manage the age diversity. Managers work with certain pre-conceived ideas about older people. There are some long standing stereotypes regarding aging. These include perceptions like, the older workers have decreased performance, decreased stamina, are difficult to train, are not flexible, have greater risks and have less capacity to work. Along with these perceptions there are other assumptions that there are natural outcomes of getting old e.g. vision, hearing, stamina etc.

However, it is time to dispel with these stereotypical ideas because research has systematically shown that these assumptions are for the most part false. These biased views about older workers are considered as responsible for the ongoing discrimination against them.

Older workers encounter problems on the job as a result of this generalisation. They stand true only in some cases. However, many of the shortcomings of older workers can be overcome. In reality, many older workers are in good health, are open to change, are trainable and are willing to take reasonable risks. Actually what have been considered as limitations are now considered as assets.

Considering the strengths of the older workers, they are typically more experienced, they have realistic expectations of jobs as a result of their own past experience they are easier to be satisfied and tend to respond to intrinsic reward. The most important aspect is they usually stay for a longer period with their employers and have lower absenteeism rates.

There are many legislations which have been chalked out for the protection of the older workers against discrimination which the employers should thoroughly be aware of. True characteristics of the older workers need to be recognised, they should be given support and should be understood properly. The benefits for this extra effort will usually be forthcoming in the form of increased loyalty and reduced absenteeism and turnover.

Novelli tries to reduce the age discrimination in the workplace and encourages employees to adopt human resource policies with multiple options to meet the needs of older workers and aid them in remaining on the job or returning to the workforce by offering them more learning opportunities.

He suggests that companies should provide technology and training courses tailored to older workers skill gaps in order to keep them abreast with new equipment. He feels that older workers can learn new things, although, the methods that are used for training younger workers will not be suitable. Their training should be in the form of setting their own pace to work or take alternative classes. This would help them to become better trained and highly performing staff. He stresses that public perceptions of older workers should change and it should be understood that by turning away the older workers, we are wasting human capital.

Dowd says that we can change the mindset we have about older workers as they are able to get different kind of knowledge, experience and wisdom something which is not taught in schools and to ignore this kind of knowledge and wisdom in return for skilled employees is considered ignorance on the part of the employers. He further adds that solutions focused on older workers are important. He calls it E3-employment, education and economic development – which together form a strategy to use this untapped labour pool

3.2.1 Age Diversity and Health

Baltes (1997) in his theory describes human development across the life span as a selective optimisation with compensation (SOC). That is to say, successful aging is based on the use of strategies that help the individual to select the most appropriate goal that optimises thinking and behaviour (energy, time, learning) during goal striving and that compensates for the potential loss that might have happened during the attainment of the goal (e.g. effort, time or the use of external aids).

Research by Freud and Baltes (2002) have supported this formulation by revealing that the use of SOC strategies was positively associated with subjective well-being and health. Since complex decision-making tasks need to engage in SOC strategies than the simple group decision making tasks, the health of older workers might be more positive and stable when they work in groups performing complex decision-making tasks in which some amount of consultation process is involved.

In the same way, research on job design also revealed that when high levels of control, skill use and task variety are present in the jobs, it sustains the older workers health and well being (War 1997). Therefore we can say that complex tasks offer opportunities for control and skill utilisation. The uses of SOC strategies are important as they give a positive feeling and serve as a protective function on the subjective health of group members, including older workers. Thus, management practitioners must remember that while designing healthy and high performing teams, these finding should be kept in mind i.e. older workers will be happy and healthy when they are working with a group or team.

3.2.2 Intervention

A proper intervention should be planned on the reduction of age discrimination, the promotion of advanced learning, improving ergonomics for older workers adaptation of working time. Retirement plans should be provided to promote favorable conditions for a successful collaboration of young and old people.

Novelli suggests that to accommodate older workers with their rich experiences and wise judgement skills we can make some changes in the work timings like making a provision for part-time or alternative work schedules, to allow older workers more flexibility in their work life as they age.

Mitchell feels that the older workforce have greater need for medical care, so companies have to adapt to the ‘a la carte’ menu of benefits from which employees can choose to address their healthcare costs instead of the traditionally defined benefit plans of earlier years which would never be enough for any calamities due to economic fluctuations.

3.2.3 Empirical Findings Regarding the Effects of Age Diversity in Teams

Organisations are mostly working on team-based system and aged workers have not been so much used to this method in earlier days. When they are included as members of a team the age diversity present in a team composition was found to have certain negative effects. These effects can be attributed to bad climate (less cohesion, lower job satisfaction) less communication, a higher turnover rate (older people leave the group earlier) more problems in decision-making and lower performance.

However, Age diversity can have both advantages and disadvantages. The advantages are utilisation of more experienced people during problem solving, their judgement ability, their wisdom etc, and the disadvantage is intensification of conflicts, due to rigidity, having a negative opinion of the younger generation and old form of knowledge and training.

Self Assessment Questions

1) Write in 5 lines, the advantages and the disadvantages of age diversity.

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3.3 WORK HOURS

Most of the working hours are for 7 hours a day and six days a week and in the Western countries they are for 8 hours a day and 5 days a week. They start at a fixed time and leave at a fixed time.

But of late a number of organisation are introducing “Alternative Work Schedule Options”. The common theme among these, is that they are increasingly flexible for employees. Flexible work hours have become most common these days as people are complaining about being pressed for time and the difficulty of balancing work and personal responsibility. So with flexible work schedule option some of these complaints can be removed and in turn improve employees’ motivation, productivity and satisfaction.

The idea is that employees have to put in 40 hours of work per week. It is upto the employee to fit his working hours so as to see that he / she puts in 40 hours work.

3.3.1 The Most Popular Forms of Alternative Work Arrangements

Compressed work week: In this the employee works for 10 hours per day for 4 days. This allows more leisure time for the employee and helps them travel to and from work at non-rush hours. This increases employees enthusiasm, morale and commitment to the organisation, increase productivity and reduce costs (electricity

and maintenance), reduce overtime expenditure, turnover and absenteeism and makes it easier for the organisation to recruit people.

The disadvantages of this method / option are:

It may affect productivity in situations where work process requires significant startup and shutdown period. But this can be worked out when the productivity periods are taken into consideration in determining the time required to generate a given output.

If everyone in the organisation is off at the same time the firm will have no one to handle the problems or deal with outsiders in the off day.

Suppose the employees have to take turns for their days off then some employees may not get their preferred days as off (Monday or Friday), then they become jealous and resentful.

When employees put in too much time in a single day. They become tired and their performance will lower on the other days.

Therefore to overcome these problems, some organisations are using what is called as nine-eighty schedules (9-80). In this, the employee works a traditional schedule for one week i.e. the regular 8 hours and a compressed week schedule the next week getting off an every other Friday i.e. they work 80 hours in two weeks but work only for 9 days.

Thus, with this method the organisations is staffed at all times but still gives employees off on two full day every month.

3.3.2 Flexible Work Schedule

This is also called as flexi-time. This gives the employees some discretion over when they arrive at work and when they leave work. The work day is broken down into two categories. Flexible time and core time. All the employees have to be at their work stations during core time. But can choose their schedules during flexible time. The following figure will show how this takes place.

Flexi hours	Common core	Lunch hour	Common core	Flexi hours
6 am	9 am	12 pm	3 pm	6 pm

Employees have to work a specific number of hours a week but are free to vary the hours of work within certain limits.

Thus one employee may choose to start work early in the morning 6 am and leave at 3 pm. Someone else will start at 9 am and leave at 6 pm and somebody else can start early morning and take a lunch break and come back to work late afternoon.

Some people can also work for some extra hours on certain days and exchange them for an off on a certain day. This work schedule has become very popular in US which are followed even in India these days. The benefits for flexitime are many. This has reduced absenteeism, increased productivity, reduced overtime expenses, lessened hostility towards management, reduced traffic congestion around work sites, eliminate laziness and provide increased autonomy and responsibility for employees which increases job satisfaction.

The one major advantage of this is workers gets to tailor their work day to fit their personal needs and can adjust their work activities to those hours in which they are individually more productive.

On the other hand, the major drawback is that it is not applicable to all sorts of jobs. It is more useful for people who are dealing with customer services etc. but not possible for people who have to work along with others in the organisation (e.g. clerks, receptionist, sales personnel in stores etc.).

Flexitime is more difficult to manage because others in an organisation may not be sure when a person will be available for meetings etc. Expenses will also go higher, hence the organisation has to be open for a longer period of time and comprehensive service demands that people be at their workstations at predetermined times.

3.3.3 Job Sharing

This is a more recent method of work scheduling. It allows two or more individual to split a traditional 40 hours a week job i.e. one person can work from 8 am to 12 noon and another person can work from 1 pm to 5 pm on the same job. Otherwise one person can work one day and another can work on another day i.e. alternative day. Two part time employees share one full time job. Job sharing is desirable for people who want to work only part time or when job markets are very tight.

The advantage for the organisation on this arrangement is that it can accommodate the preferences of a broader range of employees and can also draw upon the talents of more than one individual in a given job (The best example for this is the work of a receptionist where two peoples work is not interdependent and also does not matter greatly for the customers). We also have other profession like doctors, police, personnel firemen, etc. doing this kind of job). It is like having two heads and paying for one. You can have more workers for less pay and no benefits be given since they are on part time. It gives the employees more flexibility and freedom. It increases the motivation and satisfaction for people who cannot work for 40 hours in a week. The major disadvantages are to find a compatible pair to share the job, which can coordinate the intricacies of one job. However, there seem to be more success in these types of arrangement.

3.3.4 Telecommuting

The example of this are the home page, browser, chat room, net, URL and search engine. The term telecommuting include both flexible scheduling and the use of advanced information technology. This refers to people who do their work from home on computer that is linked to the office. It is also called as virtual office. They can have more time to do other activities besides their job and they have more freedom with little or no interruptions from colleagues, more work gets done.

3.3.5 Benefit to Organisations

- They can reduce absenteeism and turnover.
- They can save in facilities like parking spaces, power, office space etc.
- The kind of job that telecommuting can accommodate are information handling tasks, mobile activities and professional and other knowledge-related tasks, telemarketer, customer service representatives, reservation agents, content developing, case writing etc.
- Helps retain key employees, with minimum adjustments from all side
- Saves a lot in other costs.

- Morale of an employee also improves through this arrangement.

Other advantages to the organisation include the following:

- Maximising office space: Since not all employees come to the office, the office space can be minimum.
- Reduces face to face communication and flexibility,
- Demands greater coordination suitable only for some jobs and may be abused by employees.

Self Assessment Questions

1) Write in 5 lines the meaning of Flexi hour.

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3.4 SHIFT WORK

Shift work is slightly different from alternative work schedule options. When the organisations invest high capital in equipment and are in the need to compete with the world wide markets, they are forced into operating 24 hours a day. This requires back to back or overlapping shifts that fill the 24 hours period.

Technology also plays an important role in this change, because most of the modern processes require continuity e.g. steel making, pulp and paper, petroleum operations etc. All these require workers to be on the job 24 hours a day.

Another important problem which had nudged the organisations to opt for shift work is 'transportation'. The heavily populated business and manufacturing centres encouraged workers to start their jobs at different times to lessen the traffic congestion.

Therefore shift work is an employment practice which is designed to make use of the 24 hours of the clock instead of the standard working day of 8 hours. The term shift work includes both long-term night shifts and work schedule in which employees change or rotates their shifts.

In this practice a day may be divided into three shifts, i.e. 8 hours of each shift from 8 am to 4 pm, from 4 pm to midnight and from midnight to 8 am.

The day shift that is, from 8 am to 4 pm is called the 1st day shift,

then the late afternoon to midnight (4 pm to 12 midnight) is called the 2nd shifts and

the night shift (12 midnight to 8 am) is called the 3rd shift.

Sometimes the employees are given an option of choosing to work during weekends as well. Therefore on the whole they will be four or more sets of employees in an organisation at any given point of time to work in these different shifts.

There is another system of shift work where 12 hours work is done. i.e. (6 am to 6 pm) Here four sets of workers are used. That is, shift 'A' will work during day time and shift 'B' will work in the night.

These two shifts will cover 48 hours (i.e. 12 hrs x 4days) and take off for the next 48 hrs. Then shift ‘C’ and shift ‘D’ will work for the next 48 hrs.

For this kind of practice, four sets of workers are needed.

In another type of shift work, employees may work for 14 consecutive days or nights, 6 am-6pm or 6 pm-6 am; and can be free for three or four weeks.

Shift work was earlier very typically followed in manufacturing industry, where the aim was to increase the use of the capital equipment to the maximum and enable the organisation to produce three times more production compared to just a day shift.

This method was followed to counter balance the marginal increase of the produce through performing overtime work. However, both approaches would incur higher wage costs. These methods are very common in industries such as automobile and textile manufacturing and also in locations where a shutdown of equipment would incur an extensive restart process. e.g. Food manufacturing plants. They have an extensive cleaning programme if they shutdown and want to restart.

Besides the manufacturing units, shift work was also in practice in law enforcement and the armed forces as well.

However, in the present day scenario, the service industries are adopting shift system for example, a restaurant, government and private employment, public safety and health care, police, fire prevention, security, emergency medical transportation and hospitals, even media like television stations and newspaper offices are working on shift systems.

The three shifts system is the most common pattern of shift work and the timing of the shift can be very early like from 6 am to 2 pm, for the 1st shift,

2nd shift is from 2 pm to 10 pm and the

3rd (night) can be from 10 pm to 6 am.

This generally covers over a five day week and provides the employees their days off on different days of the week and the organisation is working 24/7.

All the shifts have desirable and less desirable qualities. First shift has a very early starts, so the employee in this shift will have a heavy cut of his/ her previous evening. The 2nd shift will eat away most of the evening time when the rest of the people are socialising. The 3rd shift forces the employee to adjust to sleeping during the day.

3.4.1 Examples of Shift Work

The following paragraphs will give various examples of shift system and off times.

Three-shift example:

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri
6:00 a.m. to 2:00 p.m.	Shift 1	Shift 1	Shift 1	Shift 1	Shift 1	Off	Off
2:00 p.m. to 10:00 p.m.	Shift 2	Shift 2	Shift 2	Shift 2	Shift 2	Off	Off
10:00 p.m. to 6:00 a.m.	Shift 3	Shift 3	Shift 3	Shift 3	Shift 3	Off	Off

“Four on, four off” is a shift pattern that is being heavily adopted in the UK and in some parts of the United States. An employee works for four days, usually in 12-

hour shifts (7:00 to 7:00) then has four days off. While this creates a “48-hour week” with long shifts, it may be preferred because it shrinks the workweek down to four days, and then gives the employee four days rest—double the time of a usual weekend. Due to this pattern, employees effectively work an eight-day week, and the days they work vary by “week”.

In “four on, two off” the employee only gets two days off.

In a seven-day period, this adds up to 56 hours work (on average, based on 12 hour shifts).

Four on, two off is mainly adopted by industries in which employees do not engage in much physical activity.

Four on, two off example:

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri
7:00 a.m. to 7:00 p.m.	Day 1	Day 2	Day 3	Day 4	Off	Off	Day 5

A variation of this is the “two days, two nights, four off” pattern of working.

In this shift schedule, employees work 12-hour shifts from 6:00 a.m. to 6:00 p.m. on day shifts and from 6:00 p.m. to 6:00 a.m. on nights and take off for the remaining four days.

For this type of shift work the organisation has to employ four separate teams to maintain 24/7 coverage. Here the worker works for 5 days at 9 hrs in the 1st week and 4 day at 9 hrs in the 2nd week and get 5 days off.

5/4/9’s shift example:

Week	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Week 1	9 hrs	9 hrs	9 hrs	9 hrs	8 hrs	Off	Off
Week 2	9 hrs	9 hrs	9 hrs	9 hrs	Off	Off	Off

“12/24/12/48” (or “12/24”) is another variation.

Employees work in shifts of 12 hours; first in a day shift (e.g., 7:00 a.m. to 7:00 p.m.), followed by 24 hours rest, then a night shift (7:00 p.m. to 7:00 a.m.), finishing with 48 hours rest.

This pattern needs four teams for full coverage, and makes an average 42-hour workweek. E.g. Duty doctors.

12/24/12/48 shift example:

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri
7:00 a.m. to 7:00 p.m.	Day 1	Off	Off	Off	Day 3	Off	Off
7:00 p.m. to 7:00 a.m.	Off	Day 2	Off	Off	Off	Day 4	Off

“Continental shift”, adopted primarily in central Europe, is a rapidly changing three-shift system that is usually worked for seven days straight, after which employees are given time off. For example, three mornings, two afternoons, and then two nights.

Continental shift example:

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri
6:00 a.m. to 2:00 p.m.	Shift 1	Shift 1	Shift 1	Off	Off	Off	Off
2:00 p.m. to 10:00 p.m.	Off	Off	Off	Shift 1	Shift 1	Off	Off
10:00 p.m. to 6:00 a.m.	Off	Off	Off	Off	Off	Shift 1	Shift 1

“**Split shift**” is used primarily in the catering, transport, hotel, and hospitality industry. Waiters and chefs work for four hours in the morning (to serve lunch), then four hours in the evening (to serve an evening meal). The average working day of a chef on split shifts could be 10:00 a.m. to 2:00 p.m. and then 5:00 p.m. to 9:00 p.m.

Split shift example:

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri
10:00 a.m. to 2:00 p.m.	On	On	On	On	On	Off	Off
2:00 p.m. to 5:00 p.m.	Off	Off	Off	Off	Off	Off	Off
5:00 p.m. to 9:00 p.m.	On	On	On	On	On	Off	Off

“**Earlies and lates**” is used primarily in industries such as customer service (help desk/phone-support), convenience stores, child care (day nurseries), and other businesses that require coverage greater than the average 9:00 to 5:00 working day.

Employees work in two shifts that largely overlap, such as “early shift” from 8:00 a.m. to 4:00 p.m. and “late shift” from 10:00 a.m. to 6:00 p.m.

Earlies and lates shift example:

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri
8:00 a.m. to 4:00 p.m.	Shift 1	Shift 1	Shift 1	Shift 1	Shift 1	Off	Off
3:00 p.m. to 11:00 p.m.	Shift 2	Shift 2	Shift 2	Shift 2	Shift 2	Off	Off

In the “7-day fortnight shift” pattern, employees work their allotted hours within 7 days rather than 10.

Therefore, 41 hours per week equate to 82 hours per fortnight (fourteen days and nights), which is worked in seven days, at 11–12 hours per shift.

This shift structure is used in the broadcast television industry, as well as many law enforcement agencies.

7-day fortnight shift example

Time	Sat	Sun	Mon	Tues	Wed	Thur	Fri	Sat	Sun	Mon	Tues	Wed	Thur	Fri
8:00 a.m. to 8:00 p.m.	Shift 'A' Day 1	Shift 'A' Day 2	Off	Off	Off	Shift 'A' Day 3	Shift 'A' Day 4	Off	Off	Shift 'A' Day 5	Shift 'A' Day 6	Shift 'A' Day 7	Off	Off
8:00 p.m. to 8:00 a.m.	Shift 'B' Night 1	Shift 'B' Night 2	Off	Off	Off	Shift 'B' Night 3	Shift 'B' Night 4	Off	Off	Shift 'B' Night 5	Shift 'B' Night 6	Shift 'B' Night 7	Off	Off

The “DuPont 12 Hour Rotating Shift” provides 24/7 coverage using 4 crews and 12 hour shifts while providing a week off. Average hours is 42 hrs per week but contains a 72 hour week which can be challenging. It is used in several manufacturing industries in the US.

DuPont 12 Hour Rotating Shift example:

Week	Fri	Sat	Sun	Mon	Tues	Weds	Thurs
1	Nights	Nights	Nights	Nights	Off	Off	Off
2	Days	Days	Days	Off	Nights	Nights	Nights
3	Off	Off	Off	Days	Days	Days	Days
4	Off	Off	Off	Off	Off	Off	Off

The “Five and two” provides 24/7 coverage using 4 crews and 12 hour shifts over a fortnight. Average hours is 42 per week but contains a 60 hour week which can be challenging.

Five and Two Shift example:

Week	Fri	Sat	Sun	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Mon	Tues	Weds	Thurs
1	Nights	Nights	Nights	Off	Off	Nights	Nights	Off	Off	Off	Days	Days	Off	Off
2	Days	Days	Days	Off	Off	Days	Days	Off	Off	Off	Nights	Nights	Off	Off
3	Off	Off	Off	Days	Days	Off	Off	Days	Days	Days	Off	Off	Days	Days
4	Off	Off	Off	Nights	Nights	Off	Off	Nights	Nights	Nights	Off	Off	Nights	Nights

The “Seven Day Eight Hour Rotating Shift” provides 24/7 coverage using 8 hour shifts with 4 crews.

This consists of a day shift from 7:00 a.m. to 3:00 p.m., a swing shift from 3:00 p.m. to 11:00 p.m. and a graveyard shift from 11:00 p.m. to 7:00 a.m.

Each shift is worked for seven days straight. The eight hour shifts allows vacations and absences to be covered by splitting shifts or working double shifts.

The run of day shifts is 56 hours but the eight hour shift provides time for some socialising after work.

This is a common work method in the pulp and paper industry in the Western United States but has been largely replaced by a 4 days, 4 off, 4 nights, 4 off, 12 hour rotation.

Seven Day Eight Hour Rotating Shift example:

Week	Sat	Sun	Mon	Tues	Weds	Thurs	Fri
1	Days	Days	Days	Days	Days	Days	Days
2	Off	Off	Off	Off	Grave	Grave	Grave
3	Grave	Grave	Grave	Grave	Off	Off	Swing
4	Swing	Swing	Swing	Swing	Swing	Swing	Off

Submarine sailors in the American Navy engage in a pattern known as sixes while underway. Instead of a 24-hour day, the ship operates on an 18-hour schedule. Any given individual is scheduled to stand watch for six hours, perform any other duties and engage in leisure time for six hours, then sleep for six hours. If enough personnel

are available, a given watch station may benefit from a fourth man referred to as the “midnight cowboy”. He will stand the same six-hour watch in a given 24-hour period, usually from midnight to 6:00 a.m. (hence the “midnight” portion of the name, which is most often shortened to just “cowboy”) and the person who would normally stand that watch is free. This gives rise to a schedule of six on, twelve off, six on, thirty off, six on, twelve off.

3.4.2 Firefighting Schedules

In many departments, firefighters work 24-hour shifts. They are authorised to sleep in the fire station at night but are still subject to calls for service the entire shift. Departments have many options for scheduling firefighters for coverage. One option is 24 on/48 off, where a firefighter will work 24 hours and have 48 hours off, regardless of the day of the week or the holidays. Often they will be scheduled in an A-B-C pattern. Thus, a firefighter will be assigned to A, B or C shift and work whenever that letter is on the calendar.

Another option is known as a California roll, where some shifts will be close together but allow for several days off. One option is thus A-B-A-C-A-C-B-C-B where a firefighter will work 24 hours on, 24 off, 24 on, 24 off, 24 on, 96 hours (4 days) off.

Another way to do it is thus: A-B-A-B-C-A-C-A-B-C-B-C where a firefighter will work one day, off one, works one, off two, work one, off four days.

3.4.3 Graveyard Shift

Graveyard shift, night shift or third shift (3rd shift) means a shift of work running through the early hours of the morning, especially one from midnight until 8:00 a.m. There is no certainty as to the origin of this phrase; according to Michael Quinion it is little more than “an evocative term for the night shifts when your skin is clammy, there’s sand behind your eyeballs, and the world is creepily silent, like the graveyard.”

3.4.4 Industries

Industries requiring 24/7 cover are those that employ workers on a shift basis, for example:

- Customer service including call centers
- Death care (Medical Examiner or Coroner)
- Emergency response systems
- Firefighting
- Rescue services
- Police
- Funeral
- Health care
- Logistics
- Hospitality
- Manufacturing

- Military
- Retail
- Telecommunications: viz.
- Television
- Radio broadcasting
- Transportation
- Security
- Public utilities: viz.
- Nuclear power
- Fossil fuel
- Solar, wind, and Hydro power

Self Assessment Questions

1) In 5 lines explain about the graveyard shift.

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3.5 HEALTH EFFECT OF SHIFT WORK

When a nonstandard work schedule is performed it has a major impact upon the internal rhythm of the body i.e. the body's biological clock.

All the organs in our body function with a rhythm. These rhythms are synchronized by factors such as light or dark, summer or winter, clock time or social stimuli. These synchronizers are called Zeitgebers (a German word for time-given).

The most important synchronizers for human beings are the awareness of clock time and social interaction e.g. for clock time, is when someone comes from US, we see that they have a jet lag. This is because of the difference in time. An example of social interaction is, when we are cut off from our family and friends, we feel lost.

Our internal rhythms are governed by the biological clock of approximately 24 hours period and are called 'circadian rhythms' (Latin word circa dies meaning about a day).

The body temperature functions according to a rhythm, the rhythms of endocrine system changes, the flow of urine is also rhythmic, the absorption, effect, metabolism and excretion of many drugs are strongly rhythmic.

Over and above this, the cardiovascular, hematopoietic, respiratory and autonomic nervous system also exhibit rhythmic patterns. So when the phase of a synchronizer is shifted, the body rhythms either shift with the synchronizer or become desynchronized.

The primary concern of the occupational medical community is the physiological

problem related to shift workers, but the shift workers themselves have a feeling that psychosocial shifts actually create the greatest problem in their lives.

The main concern is with the way shift work interferes or disrupts their family relations and their social lives. Consequently organisations which attempts at alleviating the physiological problems of the shift workers should also aim at taking into consideration the family and social life of the worker.

The most important and common risk factors of shift work are “sleep disturbance” and altered eating patterns:

3.5.1 Sleep Disturbances

The quantity and quality of sleep is usually disrupted when a worker needs to sleep during the day time instead of night. It is also found that 50% of the day shift workers sleep 7 to 8 hrs but only 15% of night shift workers sleep that long. Though the hours of sleep needed by a person differ on the basis of individual needs and the age, all persons need more sleep time than is possible with night shift workers, which is found to be no longer than seven hours if they sleep in the day time.

These sleep problems in shift worker, occur basically because of the sleeping period which is transferred to the time of the day and is not conducive to sleep, either in terms of circadian rhythms or environmental conditions.

Impairment in both the quantity and quality of sleep can effect the well being of an individual and if the impairments are severe it can have an impact upon work performance and safety.

3.5.2 Disturbance of Eating Pattern

Shift workers and particularly night shift workers have a higher rate of gastrointestinal problems. They experience a high rate of digestive problems due to their eating habits. The reasons are change in eating times, the difficulty of obtaining hot, nutritious meals during the night shift and the inability to have social contact during meal times with family or friends. There is a disturbance in the appetite also because of lack of the social environment during the eating time. Sleep disturbances may also play an important part in loss of appetite and eating patterns. Besides these some other conditions such as personality, stress on the job, coffee drinking, family problems and social difficulties are also contributing factors.

3.5.3 Other Health Problems

Certain health problems like diabetes mellitus and epilepsy have been found to effect shift workers since both have been found to be rhythmic in nature. Periodic variations have been observed in persons with diabetes mellitus as the rhythms may affect the timing of insulin administration. Moreover, a diabetic person should have regular food intake and correct timing of medication which may not be possible under shift work condition.

Even the epileptic seizures have been found to follow a rhythmic pattern in terms of the time of day. Night shift workers suffering from epilepsy tended to have seizures during their customary sleep time. Sleep disturbances which is a primary problem of shift work is believed to increase the incidence of epileptic seizures.

3.6 PSYCHOLOGICAL PROBLEMS OF SHIFT WORKERS

The psychosocial problems of shift workers can be more severe than the physiological problems. When shift workers socialise with other shift workers or lives in a community where shift work is the predominant work form they may not experience so many problems. But if this is not the case then they feel isolated from friends and community because participation in social and community activities become limited.

Further family relationships also suffer particularly, when younger children are present at home. Shift workers also complain about sex related problems and disturbed relationships with friends.

However, shift workers can have some positive psychosocial effect like he/she can spend more leisure time during the day with family or friends if they are not working during the day time hours. Many shift workers feel the loss of not going to theatres or sports events.

3.7 PERFORMANCE AND SAFETY IN SHIFT WORK

It is well know that human performance follows circadian rhythms. Thus, when the same type of work is undertaken by a person at different times, it will result in different outputs i.e. it is possible that the production rate would reduce considerably if a worker performs it in the night shift. However, studies have not supported these assumptions. The research conducted on safety among shift workers has also been inconclusive. Accidents rates were found to be higher in the morning and afternoon shifts than in the night shifts, but when accidents occurred in the night shift there were more serious.

3.7.1 Optimal Shift Work Scheduling

Certain criteria have been suggested which can be useful in judging the appropriateness of a shift schedule.

Single night shifts are to be preferred over consecutive night shifts because the circadian rhythms will not alter significantly.

Similarly for psychosocial reasons, shift workers should work no longer than one week on the shift without free time or a change of shift.

Each night shift should be followed by atleast 24 hrs of free time. This will give a suitable recovery period after each shift from sleep deprivation.

The length of shift should be based on the type of work to be done. i.e. shifts involving light work can be longer than those that require heavy physical or mental work.

The length of the shift cycle should not be too long and if the rotational system is used, the shift should be rotated regularly so that workers can plan their family and social lives.

Workers on permanent shift work should be given as many free weekends as possible so that they may participate in atleast some family and social functions.

3.8 SELECTION OF SHIFT WORKERS AND HEALTH MONITORING

While selecting people for employment in an organisation which requires shift work, a careful review must be done because 20% of the working population cannot tolerate shift work. There are certain basic guidelines which should be followed while assigning workers to shift work.

New employees below the age of 28 years and older than 50 years should be selected with caution for shift time. If the over 50 years worker is experienced and well adapted to shift work, he / she should be allowed to continue shift work on a voluntary basis if his physiological status supports it.

Persons suffering from gastrointestinal disorders should not be put on shift work. When meal times are disrupted compounded with unavailability of hot and nutritious meals these people may be affected by some psycho-physiological problems, which may have adverse effects on their digestive system.

People suffering from diabetes and thyrotoxicosis should not be employed for shift work unless they are medically monitored. Diabetic people need to have regular food intake and thyrotoxicosis need appropriate therapeutic timings which are not possible under shift work conditions.

Similarly people with epilepsy should not be employed for shift work without proper medical evaluation.

Further people with sleep disturbance and emotional instability are not suited for shift work.

Workers living in noisy areas or near airports and whose homes are not properly insulated against noise pollution suffer from constant sleep disturbances, therefore it is better to avoid them for shift work.

Shift workers should be given particular attention by health personnel and their organisations at regular periods so that their health status is known and incase of some problems they can be removed from shift work and be placed in regular work shift.

Self Assessment Questions

1) In about 7 lines discuss about the psychological aspects of shift workers.

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3.9 LET US SUM UP

The overview of this unit has shown us how age diversity can hamper the working of an organisation particularly when the organisation places for team based work. There are certain stereotypical biases leveled at the aged workers and therefore, younger workers have conflicts and are less cooperative with them. But, there are also certain advantages of employing aged workers because, they are more stable, more committed and experienced and have high levels of loyalty to the engaging organisation. Over and above these their knowledge, skills, experience and wisdom cannot be ignored.

Turning our attention to work hours, organisations have resorted to offering various work schedules to the employees to motivate them to work in the organisations and at the same time be able to fulfill their own personal chores. They are different types of alternative work schedule from which employees can choose the working hours of their choice. However, there are certain disadvantages to this because, it is a big burden on the HR manager to keep tabs on different employees work hours and monitor them effectively.

In the next section we discussed shift work. The organisations have divided the day of 24 hours into three shifts and employ different sets of workers to span over the 24 hrs of the day. This method is used to increase their production. If a single shift is followed, the machinery and the workshop floors will be idle for the next 16 hrs, instead, if shift work is planned these two important resources can be used to the maximum extent with little more cost to yield greater profits for the organisation.

However, since the human resource needs to be employed to engage the machinery in the organisations, there are certain precautions to be taken to protect this valuable asset. The organisations have to take certain steps to safeguard the health of the shift workers because working in different shifts can have adverse effects on the health of the worker, in terms of sleep, eating patterns and more importantly on the psychosocial aspects. Certain techniques have been discussed in this unit to overcome the ill effects of shift work.

3.10 UNIT END QUESTIONS

- 1) What do you understand by aging workforce? How can you address their problems.
- 2) What are the different types of work hours?
- 3) What is shift work? What are its effects on the workers.

3.11 GLOSSARY

Aging workforce	: Workers who have attained their superannuation and still seek jobs.
Alternative work schedules	: This is a method of giving the employee to choose his timing of work so that, he can have some spare time to attend to other domestic and personal works.
Job sharing	: This is also one method alternative work schedule wherein two people will share the same job and may come in at different parts of the day or on alternate days.
Telecommuting	: Is working from home by getting connected to the organisation with the help of computer.
Shift work	: This is a method used by an organisation to provide services or to produce more yield. The same equipment and space is used and three or four sets of employees work in the organisation round the clock.

UNIT 4 SAFETY AND ACCIDENT PREVENTION - PSYCHOLOGICAL INTERVENTION STRATEGIES

Structure

- 4.0 Introduction
- 4.1 Objectives
- 4.2 Accidents
 - 4.2.1 Accident Proneness
- 4.3 Causes of Accidents
 - 4.3.1 Heating
 - 4.3.2 Lighting
 - 4.3.3 Age and Experience
 - 4.3.4 Health
 - 4.3.5 Absenteeism
 - 4.3.6 Psychological Factors
- 4.4 Model of Accident Phenomenon
 - 4.4.1 A Model of Accident Phenomenon
 - 4.4.2 Situational Factors in Accident Occurrence
- 4.5 Individual factors in accident occurrence
- 4.6 Psychological Intervention Strategies
 - 4.6.1 Personnel Selection and Placement
 - 4.6.2 Safety Training
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 - 4.6.4 Committees
 - 4.6.5 Prizes
 - 4.6.6 Management Support
 - 4.6.7 Contests
 - 4.6.8 Use of psychological Tests
- 4.7 Let Us Sum Up
- 4.8 Unit End Questions
- 4.9 Glossary
- 4.10 Suggested Readings and References

4.0 INTRODUCTION

From any point of view, be it economical, social, psychological or physical, accidents constitute one of the major problems to mankind. Basically it is assumed that the tendency to meet with accidents or engage in behaviour likely to lead to accidents is a characteristic of some individuals and thus it is predictable. It is thought that high accident prone people can be weeded out at the time of selection itself. But this is not actually possible as there are no predictors available which can discriminate between individuals who are accident prone and not accident prone. However, some psychological tests such as reaction time, intelligence and pursuit meter may provide

a slight index. Accidents at organisations are caused due to several factors, and the only way to manage them is through engaging in safety measures. It is essential to provide proper safety equipment to workers but most importantly, training in methods of safety should be given which would inadvertently reduce accidents. Besides this the top management's commitment and convictions are also essential to see that the employees are working in safe conditions. These factors would contribute towards the employee's morale and involvement in the organisation's progress. This unit deals with safety and accident prevention. It examines the causes of accidents and puts forth the various preventive measures to avoid accidents.

4.1 OBJECTIVES

After completing this unit, you will be able to:

- Define and describe what are accidents;
- Elucidate the causes of accidents;
- Explain what is safety; and
- Examine the different methods of safety.

4.2 ACCIDENTS

Accidents are not only expensive but they also lower the morale of the workers and in addition result in lower production rates. As a group, companies with good safety records have more satisfied workers than the companies with high accidents severity and frequency. There would be hardly any basis for action if accidents happen purely by chance but behind every accident there is a very real cause which experts believe can be controlled or eliminated.

Accident prevention can be a huge financial investment for both employees and employers. The National Safety Council reported in 1954 that individual accidents are a tremendous financial problem for any organisation.

Human errors are an important cause of accidents and inspite of these facts, the safety engineer who is responsible for accident prevention is usually not a person from behavioural sciences.

Organisations do not understand the needs of such specialists. Certain amount of psychological intervention would go a long way in aiding the organisation to bring down the accident rates and save huge costs.

An accident is defined as any unexpected event that interrupts or interferes with the orderly progress of the production activity or progress by the National Safety Council. Sometimes accidents may cause damage to equipment or materials or may delay production without resulting in an injury or fatality but many a times there is a possibility that injuries or fatalities also occur.

The Occupational Safety and Health Act, 1970 has developed a procedure of recording and reporting occupational injuries and illness. They record injuries and illness that are Lost work day cases (these are sometimes called disabling injuries) Non-Fatal cases without lost workdays (cases without lost workdays which result in transfer to another job or termination of employment or require medical treatment other than first aid).

Let us also consider accident behaviour (or unsafe behaviour) as Whillock et al, (1963) have proposed. They say that accident is that behaviour which might result in injury to the individual himself or herself or to someone else. A behaviour need not necessarily result in personal injury or physical damage but can be considered as a precipitating factor in majority of the accidents.

4.2.1 Accident Proneness

It is a tendency of a person to continuously have accidents as a result of some stable and persisting characteristics. For example, two individuals operating the same machinery under identical circumstances have the same situational probability of having an accident. But, one may be inherently a poor operator in the area of coordination, because of this lack of proficiency, there is a chance that he / she will have a greater probability of having an accident. This person is called accident prone operator. Many attempts have been made to identify individuals who are accident prone.

In majority of industrial studies evidence shows that accidents do not happen to persons on the basis of equal liability. Some have more than their share and one accident will predispose one to others. This may be due to the psychological makeup which make people more susceptible to accidents.

Self Assessment Questions

1) What is accident?

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2) What accident proneness?

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3) What are the causes?

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4.3 CAUSES OF ACCIDENTS

Accidents are caused in terms of the nature of work. Some jobs are such that they are highly accident prone and one has to take considerable precautions to avoid and prevent the accidents from occurring. Some of the jobs which have more chances of having accidents include the following:

Mining, marine transportation, quarry and construction are more prone to accidents.

Environmental conditions of work: Also certain environmental conditions cause more accidents as compared to other environmental conditions.

4.3.1 Heating

For instance, it was found from research studies that the accident rate was lowest when the temperature is between 55 and 59 degrees Fahrenheit and highest over 69°.

Between 59 and 69 degrees it was moderate. Further it was found that men experience the heat more than women. The reason could be that they work harder and as a result may be fatigued and influenced by the high temperature.

4.3.2 Lighting

Accidents sometimes happen due to insufficient lighting. Most accidents were found to happen in the winter months. Lack of light is responsible for three types of accidents. Contact with machinery, object dropping on a person, person falling. Another type of accident influenced by insufficient light is eye injury resulting from something getting into the eye. These kinds of accidents happen because workers get the objects dangerously close when they have difficulty in seeing.

4.3.3 Age and Experience

It is found that employees usually had more accidents in the first six months and steadily dropped in the later periods. This can be avoided if proper training on job procedures and safety was given. Thus, in general accidents rates decrease with age. When men and women were compared accidents rate decreased steadily with age for men but not clear cut evidence is available about women. Age normally accompanies experience which in turn accompanies a decrease in accident rate.

4.3.4 Health

It has been noticed that accidents are significantly associated with the aspect of health. When a worker is predisposed with some ailment, there are higher chances that his / her concentration in the job reduces and hence increase the rates of accidents.

4.3.5 Absenteeism

There is a direct relationship between accidents and absenteeism. When a worker wants a leave of absence and is not sanctioned the leave, there is a chance of accidents increasing as his mind or concentration is not on the task he is performing.

4.3.6 Psychological Factors

When workers were liked by their fellow workers they tended to be accident-free and those who were disliked by their associates tended to have higher accident rates. Further it was also found that when morale is high accidents are not likely to happen.

Self Assessment Questions

- 1) In about 3 lines briefly mention the environmental conditions at work which cause accidents.

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4.4 MODEL OF ACCIDENT PHENOMENON

Since in most of the accident cases human behaviour is the contributing factor, it is important that we discuss such behaviour in terms of two classes of variables viz. Situational and Individual. The occurrence of all accidents can be associated with either one or both of these factors.

4.4.1 A Model of the Accident Phenomenon

Surry (1968) has proposed a model of industrial accidents which has three principal stages with two similar 'cycles' linking them. Each intervening cycle is characterised by a series of six questions that need to be answered in 'yes' or 'no'.

Stage I: The first stage is the environment both the spatial and temporal with potential injury agents (moving equipments, machinery tools, hazards). It is in this kind of environment that possible accidents can happen.

The link between this stage and the next is the danger build-up cycle with its sequence of events reflected in the six questions. If any of the questions have negative response then danger is imminent. But if all the replies are affirmative (Yes) then the danger will not grow and no injury or damage will ensue.

Stage II: This is a stage of hazard of imminent danger which is caused by a condition or circumstance which if not checked properly can lead to injury or damage. A tool dropping from the hand of the worker who is working at the higher level or someone slipping on the oil on the floor. The cycle is from this stage to the third stage and there is also the emergency period cycle. This also is reflected by the questions and any negative answer to one of the questions will again lead to injury or damage.

Stage III: The stage of injury and/or damage (i.e. an accident) can develop if there is any negative response to one of the questions in the cycle, otherwise there is no damage done.

However, the time involved in this sequence of stages can vary and sometimes only in split seconds. That is why the implied decisions are to be taken immediately for each sequence of questions and also the associated perceptual and cognitive process and physiological responses should occur simultaneously.

We can see that in this model there is a distinction made between the situational and individual factors.

The situational factors are associated with stage I (people and the environment) and the individual factors are associated with the decision (action) process that generally occurs during the danger build-up and danger- release cycles.

4.4.2 Situational Factors in Accidents Occurrence

The general characteristics of a situation and the predisposing characters of the situation are the important requirements for establishing the probability of accident inducing circumstances. This probability in combination with the incidences of accident behaviour by people in the situation determine the liability (risk) of accident .

There are many different situational factors that can be related to frequency rates of accidents from which a few can be shown for the relationship that exists between them.

Job Factors: This is one of situational factors where tabulation is given of the average number of hospital visits per year for employees on a few jobs in an organisation.

Job	Average Number of
Hospitals Visits	
Crane operator	3.55
Reckoner	2.96
Sheet inspector	2.54
Potman	2.10
Supervisor	1.16
Roll turner	.47

Therefore to reduce the probabilities of accidents appropriate human factors need to be applied while designing the equipment.

Work Schedule

This is another situational factor, wherein Surry (1968) pointed out that during the normal day schedule, the rate of incidence of accidents taking place are less in the beginning of the morning work period and drops before lunch break.

After lunch the rate tends to be low but rises until mid afternoon and tends to decline a little or remain on level. Such an effect can be attached to fatigue but sometimes motivation can also be the cause.

In night shift work situation the tendency is slightly different. The accident rate is high at the beginning of the shift, drops after that and increases slightly after work breaks, then drops again.

However, these patterns of accidents are found only in some work situation. They cannot be assumed as universal.

Atmospheric conditions

This is one of the most important situational factors for accidents. There is a close relationship between temperature and accidents, the accidents are lowest at the optimum temperature and higher when the temperature is very low or very high. The optimum temperature however would depend upon the nature of the task, the clothing worn, the degree of acclimatization of the workers and the age of the individual.

Besides these there are other situational factors related to accident frequency and these include some sociological factors also.

Self Assessment Questions

- 1) Mention the situational factors of accidents.

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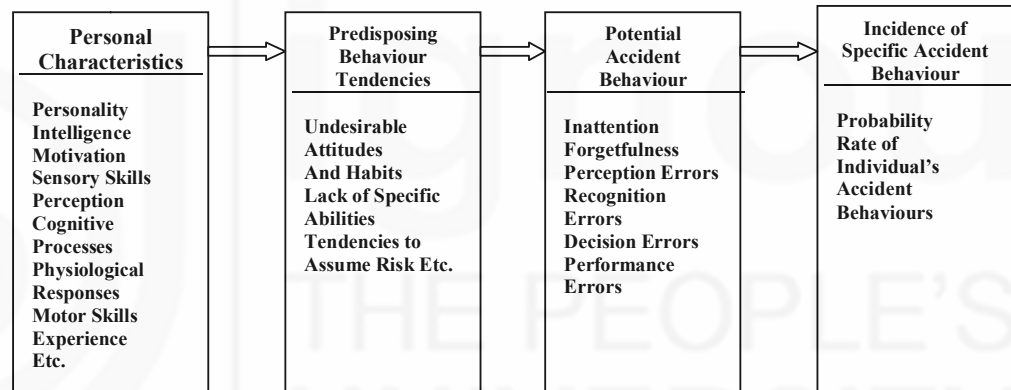
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4.5 INDIVIDUAL FACTORS IN ACCIDENTS OCCURRENCE

An Individual's personal factors cannot be ruled out when considering the predisposing behaviour tendencies which influence the potential accident behaviour.

Surrey's formulation (shown in the above fig.) specifically refers to the human functions such as perception cognitive processes and physiological responses which contribute to the decisions and the resulting actions.

Any errors in the above functions contribute to accidents. These errors can be regarded as behaviours and in combination with situational factors can cause accidents. It should be noted that there are certain specific types of behaviour that can be accidents in a given circumstances.



Besides these there are certain specific personal factors related to accidents in different situations. These are given below:

Vision:

Some studies have shown that vision is related to accidents frequency. When a group of employees (whose visual skills meet certain statistically determined standard) have been compared with another group (whose vision does not meet those standards), it has been found that there is a relationship between injuries and visual skills. In other words, there were less accident records of people who have met the standard of visual skills.

Age and Length of services:

A number of accidents surveys have revealed the relationship between age and accidents. However, there are different patterns for different job activities. Very young and elderly workers might not be placed in hazardous jobs. The most susceptible age is found to be the early twenties. This is very important for management safety programmes.

Perceptual-Motor Relationship:

When a study was conducted on accidents in relation to perceptual speed and motor

speed, it was found that those with accident records tend to have more motor speed, whereas people who had more of perceptual speed were found to have less accidents rates. This indicates that people who have better perceptual skill perceive quicker and then react. But people who have motor skills, react quicker and perceive slowly.

Other factors:

In some circumstances personality factors have also been found to be related to accidents. Besides this, the personal, emotional and attitudinal factors were also found to be predictors of traffic accidents.

4.6 PSYCHOLOGICAL INTERVENTION STRATEGIES

Many efforts are being made to reduce accidents in the manufacturing plants and great stress is being placed on safety. Efforts are being made in two directions.

- i) Reducing the liability of the situation
- ii) Minimising the possible influence of any relevant personal factors.

The most common type of safety training is to make employees safety conscious and safety-wise. Many psychological principles are used to safeguard the workers. The measures taken by the safety engineers cover a spectrum of techniques, procedures and guidelines directed toward reducing situational liability.

These include the installation of protective guards on machines, changes of method, arrangement of material and equipment, use of protective clothing and gear, improvements in the environment and other techniques aimed at minimising the specific types of hazards. It has been increasingly recognised that the design of equipment and the nature of the physical environment can effect the accident liability.

There is more focus on the design of equipment and work stations to suit the individual physical aspects (like height, weight etc.) that contribute to safety.

Let us consider atleast a few of the possible approaches to reduce accidents from the human liability rather than from situational side.

4.6.1 Personnel Selection and Placement

Some personal factors are significantly related to accident frequency on a given job. Therefore to avoid this it is necessary to select those individuals whose personal or biographical records show that they have good accident records. Certain tests such as vision tests, psychomotor tests and job sample tests can be appropriate indicator about an individual's accident proneness. Simulated settings can be made use of in personnel selection to serve as better predictors of future performance.

4.6.2 Safety Training

Surry (1968) has pointed out that past experiences greatly reduces accidents. Training can also provide some experience to the new employees, before they begin their jobs, in acquainting them with possible hazards and also with those practices and method which will minimise the likelihood of their having accidents. Moreover, proper attitudes toward safety practices are also developed through training programmes. Training programmes need not be only for the new employees but is required for the current employees also. Here some principles of learning should be used to ingrain

proper safety methods. The best technique of training is the programmed instruction which is found to be highly effective. There has been a dramatic reduction of accidents in the later part of the century and this can be attributed to many factors, including the improvement of the machines and equipment people are using on their jobs, the use of safety devices and the improvement of working conditions. Though safety training is one method of reducing accidents, minimising hazards at the work place, publicity of safety methods etc. would also help. When comprehensive safety programmes are provided to the employees it can result in a saving a lot of expenditure for the organisation.

4.6.3 Persuasion and Propaganda

Different types of persuasion and propaganda like posters and placards are used in most of the training programmes. These to a certain extent increase the 'safe behaviour' Surry (1968) has given some suggestions for developing propaganda campaigns which are given below:

- Use of sound premises based on known cause and effect relationships.
- Use of various media in information exposure.
- Use of direct approach in which the campaign is aimed at specific points, rather than on general appeal.
- Making sure that the appeal pertains to the person to whom it is directed.

4.6.4 Committees

More and more safety committees are becoming the policy force behind safety programmes. The two basic committees are management and joint union management committees. Safety here is a primary collective bargaining issue. Both management and union officials realise its importance and are striving for improvements through joint safety committees. Today the safety problems are not big issues in union management contract negotiation.

4.6.5 Prizes

Presenting an award to employees who practice good safety measures does reduce accidents but this does not sustain as a long term motivation. Organisations have realised that it is better to train or transfer the employees to a safer job when they are highly accident prone. Moreover if the employees are supplied with safety equipment free of cost, it would be more helpful.

4.6.6 Management Support

The success of any safety programme largely depends upon the conviction of the foremen and top management. Safety is an integral part of foreman's job and he can ensure safety measures through group participation. It is found through studies that if the organisation conducts classes in accident prevention method and when top officials attend and lead the discussions, the rate of accidents have fallen to a considerable extent.

4.6.7 Contests

When some competition between plants or workers is planned, it was found to be effective for a while. But psychologically it has been found that it is not good in the long run as the contestants lose interest very soon in these sorts of programmes.

4.6.8 Use of Psychological Tests

There is no proper evidence for remarking that psychological tests are very useful in selecting people who have traits that lead to safety at work. Accidents happen due to several factors at work. It is quite possible and even likely that there will be more than one cause for a single accident. However, certain tests like intelligence, reaction time dotting and pursuit meter are sometimes used and when a correlation was computed there was a substantial relationships but not an absolute one. Therefore it can be concluded that these tests need to be used at the time of selection itself.

Self Assessment Questions

- 1) State the industrial safety programme to avert accidents.

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4.7 LET US SUM UP

Any unforeseen a unexpected event is termed as accidents and these accidents are more common in production organisation as there are heavy machinery, unsafe working condition, high levels of noise, temperature and hazardous conditions prevailing all around the individual employee. Besides these, if the employee's physical, psychological emotional and social conditions are not up to the expected mark, they can have adverse effects upon his / her working system which can also contribute to causing accidents. Accident can be dangerous as they can sometimes incapacitate an individual or also cause death. They not only cause a lot of anxiety and stress to the employee and the employers but can cost heavily to both. There are many situational factors, individual and other factors which are dealt in the above paragraphs, as causes of accidents and certain important method of averting these accidents have also be stated in the psychological intervention strategies, which if followed can help prevent accidents to a large extent. All organisations, should follows these method stringently so that they can save upon the costs of accidents in the forms of compensation and insurance claims.

4.8 UNIT END QUESTIONS

- 1) What do you mean by an accident?
- 2) What are the situation and personal factors which can cause accidents?
- 3) What do you understand by industrial safety programme? Explain

4.9 GLOSSARY

- Accidents** : Unforeseen and unexpected even which can lead to severe damage to individual organisation.
- Situational causes** : The general characteristics of a situations such as noise, atmospheric condition, sharp tools, heavy equipment, place of work conditions of work etc.

Individual causes : Vision, age, perceptual and motor skills, emotional, attitudes, personal issues.

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