Chapter 4

Job Analysis of Library Professionals in Science and Technology Institutes

4.1 Introduction

Today knowledge is deemed to be the primary superpower that supplies energies to deal with all human developments and growth and also to combat every negative force that threatens the very human existence. Governments of all countries, industries and business houses and other organizations are heavily investing in the production and growth of new knowledge than ever before to be in the forefront of economic and political spheres and save human society from disasters. We perceive knowledge to be a huge reservoir that comprehends a wide range of human skills, new knowledge arising out of R & D in science, technology, social science and humanities; individuals who are endowed with extraordinary special gifts of inexplicable intuitive faculties for creativity, practical skills, expertise that may be their tacit knowledge; embedded knowledge in nature, manmade artifacts; conventions and traditions and many others.

The present age is known as the age of knowledge management and Information Communication Technology (ICT). Over the past few decades, there are a number of technologies and techniques have been developed and applied to facilitate for the creation of documents, disseminated stored and retrieved. Basically the documents in the form of digital and electronic format has got the optimum speed of access along
with the other necessities like accuracy of retrieve or high precision value, wide coverage with minimum time, easy sharing over network. Today we are living in ICT era where there is no dearth of documents and information. All the countries around the world are largely depends upon the knowledge and information. They are all engaged in variety of science & technology and research & development work for new discoveries of information and knowledge. As such the Libraries are getting central position in any research as well as academic institutions. Technology, in general, more precisely, ICT is the chief enabling agent of the changing environment of the libraries. Digital technology that is being widely applied to all process of information storage, retrieval and communication, said to be sweeping the world currently, is the focus of attention. The libraries are also connected to a vast arena of electronic resources and internet based services.

In today's environment, library professionals must act as a knowledge manager, applying all the skills of collection planning, selection, analysis and cooperation in order to manage the junction of print and digital resources. There is a need for already recruited library professionals for adequate in service training programmes in order to meet the new challenges of present day. On the other hand, recruitment of new library professionals with required knowledge, skills and abilities may be recruited in the library. For this task human resource planning viz-viz job analysis is most essential. Job analysis helps the organization by forecasting human resource requirements, comparing requirements and availability and forecasting human resource availability with a result of balance, surplus or shortage of human resources. This helps the authorities and
policy makers to decide whether transfer rationalize or recruitment and selection are to be done.

Government should take initiative for successful selection of curriculum and control over educational systems in terms of course and curriculum. It is necessary to determine in the early hours before starting the education. During the preparation of curriculums for the students of different educational avenues the job analysis plays a deciding role. It is necessary to analyse carefully the possible vocation. There should be a definite opportunity and possibility of the students for further higher study or employment prospects. These educational avenues are supposed to create proper manpower for these vocations. On the other hand, it is also significant to decide the general qualification, professional qualification, knowledge, skills, duties, experience, personal characteristics etc. for successful vocations. It is necessary to know what the job, vocations require.

4.2 Aspects of Job Analysis

Job analysis is the basic Human Resource management (HRM) tool for any organization. HRM is an important managerial part and plays an important role in any organization including the libraries. Proper job analysis ensures a systematic cooperation and understanding among the employees regarding their work and with the organization. Job analysis is the procedure by which different facts and information about a job can be exposed in a systematic way and also acts as one of best procedures for making the proper flow of work for the specific job as well as the common rules and regulations among the employees. It identifies the definite skills, knowledge,
ability, responsibility and duties required for a specific task. It is the base for job
description and job specification. Job description states the information regarding task,
duties, responsibilities of a job and job description express the minimum qualifications
to perform a job.

4.2.1 Description of Job Analysis

Before conducting job analysis job analyst tries to classify the different jobs as set,
where a particular job is a unit of jobs in an organization or institution. It is a difficult
task for the job analyst to classify and identify the key duties and responsibilities. Job
analyst generally tries to take help from the specific subject experts in the particular
field like teachers, professionals, incumbents, manger, directors, authorities, different
stake holders etc. of the particular job field area to decide the various important
components of the job. The different tasks, responsibilities, duties and for doing these
tasks the required knowledge, skills, abilities act as a tool for the sources of information
for job analysis. Therefore job analysis plays an important role for an organization to
streamline the job and to achieve the goals. Regular job analysis by the professionally
qualified job analyst helps the organization for better performance of the employees
and better services. The various ranges of information gathered in the process of job
analysis regarding the jobs act as a ready reference tool for the authorities and policy
makers which helps the authorities and policy makers for their decision making, human
resource planning, recruitment, selection, training and development, performance
appraisal, compensation and benefits, safety, health and hygiene, legal aspects and
some other managerial functions. The immediate products of this analysis are job
description and job specifications.
There prevail a lot of different definitions regarding the job analysis. These definitions are coined by different scholars and personalities at different times. Among these definitions two common and important definitions are included as follows-

According to Jean Jones and Thomas Decothis, (1969), “Job analysis is the process of getting information about jobs, especially what the worker does, how he gets it done, why he does it, skill, education and training required, relationship to other job, physical demands, environment conditions etc.” and on the other hand according to Edwin Flipoo, (1980), “Job analysis as the process of studying and collecting information relating to the operations and responsibilities of a specific job”.

Job analysis provides various information of a particular job. Some important areas of information provided by the job analysis are as follows-

a) Job Identification and the title of the job.

b) Distinctive or significant characteristics of the job, its location setting, supervision, union jurisdiction, and discomforts

c) What the typical worker does; Specific operations and tasks that make up the assignment, and their relative timing and importance; the simplicity, the routine, or complexity of tasks, responsibility for others, for property, or for funds.

d) What materials and equipments the worker uses: metals, plastics, grain, yarns; and lathes, milling machines, electronic ignition testers, corn huskers, punch presses, and micrometers are illustrative.
e) How the job is performed: The emphasis here is on the nature of operations, and may specify such operations as handling, feeding, removing, drilling, driving, setting up, and many others.

f) Required personnel attributes: Experience, training apprenticeship, physical strength, coordination, physical demands, mental capabilities, aptitudes, and social skills are some attributes.

g) The conditions under which the work is performed: Working conditions and work environments is a major contributing factor in the performance of the job, and the satisfaction of the employee.

For the job analysis, regular collection, keeping the different record and information regarding the jobs are very important. These information are assembled and analysed during appraisal in different occasion by the employers and authorities. Further, this information also help the employers and the authorities to decide the duties, responsibilities, working environment etc. for better quality of service in terms of quality and quantity.

The planning process of job analysis starts with choosing the right person, by whom the job analysis will be conducted. In an organization, a job analysis is generally conducted by the following three different categories of person or groups namely-

a) **By a Temporary Job Analyst:** The authority or organization may hire a temporary job analyst from outside to conduct job analysis in their organization.
b) **By Employing a Full Time Job Analyst:** The concerned authority may appoint a full time job analyst for their organization. As the job analysis is a continuous process it helps a lot for proper record keeping of information regarding the job analysis.

c) **By an Employer, Supervisor, Job Incumbent or a Combination of Both:**

The authority may conduct job analysis through the supervisor, job incumbent or combination of both supervisor and job incumbent. Generally it is practiced in the government sector organizations.

### 4.2.2 History of Job Analysis

In around the year 1900, the concept of job analysis was developed for the first time as a management technique. F. W Taylor is the first person who showed keen interest in improving the efficiency of work and made extensive study on job with the principles of scientific management. Early studies regarding the organization were interested on the purpose of the job only. But this concept disappeared as the human relations movement came into focus and changed the concept into both the job and employee of the organization. In the early 1960s the psychologists and other behavioural scientists rediscovered jobs as a focus of study in an organization in relation to the organizational structure and behaviour of the employee. Earlier, job analysis had focused only upon the work being done. But later in the years during 1965 this concept was changed by the psychologists as they had given interest in job analysis and contributed in three areas of job analysis. Firstly, development of questionnaire for job data collection, secondly, worker point of job analysis and thirdly, focus on the small elements of the
Afterwards with the development and practice of the concept of job analysis the wide use of statistics, computer, and legal aspect is also an indispensable part of job analysis as the wage and minimum service rule is directly or indirectly related to job analysis. The first job analysis was started to practice by the United States almost 50 years back. The United States, Department of Labour has developed job analysis procedures and implemented over many years. They developed and published The Dictionary of Occupational Titles. In India, generally the job analysis of library professionals of different positions is conducted by different individuals and the organizations for their organizational benefits only. There is no standard model for job analysis. Therefore, different organizations, institutes, governments conduct job analysis according to their need.

4.2.3 Uses and Advantages of Job Analysis

Job analysis is considered as an essential ingredient for the personnel management. The variety of information gathered during the job analysis process are very important for all ranges of employees and overall human resource planning process like recruitment, selection, training and development, wage and salary administration, job design, performance appraisal, compensation and benefits, health, hygiene and safety, legal aspects and some other managerial functions. Thus this information varies considerably depending on the aim and objectives of the analysis programme. Job analysis is a basic human resource management tool for all the organizations. The various advantages of job analysis are:
a) **Provides First Hand Job-Related Information:** Job analysis process provides valuable job-related data such as duties and responsibilities of a particular job, risks and hazards involved in it, skills and abilities required to perform the job and other related information which helps managers.

b) **Helps in Creating Right Job-Employee Fit:** Job analysis helps management to place right person at the right place.

c) **Helps in Establishing Effective Hiring Practices:** Job analysis helps the manager in establishing effective hiring practice as all possible questions are answered through job analysis.

d) **Guides Thorough Performance Evaluation:** Job analysis helps manager in performance evaluation of the job done by job holders.

e) **Helps in Analyzing Training & Development Needs:** Job analysis helps managers to understand need of training, when to impart training, whom to impart training etc.

f) **Helps in Deciding Compensation Package:** Job analysis helps manager to decide compensation package for specific job as it provides information regarding responsibilities and hazards involved in the job.
4.2.4 Problems with Job Analysis

There are a number of problems available in the process of job analysis. Some of them are mentioned as follows-

a) **Lack of Management Support:** Lack of management support is the biggest problem that arises in the job analysis process. The management support from top to bottom is very essential to enhance the output or productivity of job analysis.

b) **Lack of Co-operation from Employees:** Proper cooperation and coordination is necessary for collecting authentic and accurate job data. In many cases coordination from the employees’ side is not got which leads to wastage of time and money of the job analyst.

c) **Inability to Identify the Need of Job Analysis:** Identification of need and purpose of job analysis are not properly identified in many cases which may futile the whole process of job analysis.

d) **Biasness of Job Analyst:** Biasness of job analyst is a problem in job analysis process. An unbiased and balanced approach is essential for real and genuine job analysis.

e) **Using Single Data Source:** Job analysis requires more sources of information of data should to be considered. But in real case analyst some time uses single data source for job analysis.
4.2.5 Nature of Job Analysis Information

There are two types of job analysis information depending upon the need of the job analysis:

a) Task Requirements: The task requirement includes the procedures, methods, and standards of performance of the job, as well as equipment used to perform.

b) Person Requirements: Person requirements include the knowledge, skills, abilities and behaviours required for successful job performance.

A job analysis needs both types of information task requirements and person requirements and bridges between the person and task requirements.

4.2.6 Types of Job Analysis

There are various types of job analysis found in different organizations for various purposes. Among them the four important kinds of job analysis are applicable for all kinds of organizations. These are as follows.

a) For improving working methods, processes and quality
b) For health, hygiene and safety of the employee
c) For in service training of the employees
d) For recruitment and new employment, including transfer, restrict of hiring, early retirements, downsizing and lastly for making "fair" wages schedule.
4.3 Method of Job Analysis

The method of job analysis may be divided into two categories- qualitative and quantitative methods.

4.3.1 Qualitative Methods of Job Analysis

a) **Job Questionnaire**: A job questionnaire may be prepared and distributed to all concerned employees asking about the job information i.e. its various components, time spent on each of them, and so forth. The completed questionnaire could be given to the supervisors for their observations and remarks.

b) **Interview**: Practically, interview method is used to obtain precise, complete and comparable information about the job. The job analyst prepares list of questions as with a questionnaire and asks the questions to the jobholders about the duties and tasks of their job. After the interview is over, the analyst drafts a report, and shows it to the immediate superior for approval.

c) **Observation**: Observation technique is preferred in case of the job which is simple and repetitive in nature. The analyst observes the real situation of the job regarding working conditions, equipment used, and skills required.

d) **Independent Observers**: In this method, a trained observer is additionally allotted to collect the job information. This method is used in case of job involving in crucial nature.
4.3.2 Quantitative Methods of Job Analysis

a) **Functional Job Analysis**: Functional Job Analysis (FJA) method tries to examine the fundamental components of ‘data, people and things’. This method was developed to improve job classification in Dictionary of Occupational Titles (DOT) which helps a job analyst to learn what is involved in a particular job. FJA assumes jobs can be described in terms of three basic relationships viz. physically relating to things, using mental resources to process data and interacting with people during the job. Later on, Occupational Information Network (O*NET) was developed which replaced the DOT. O*NET is an internet accessible database. It describes occupations of worker's tasks, knowledge, skills, abilities, and other characteristics (KSAOs) and workplace requirement. It is more user- friendly than the DOT. O*NET content model categorizes data into six groups as worker requirements, experience requirements, occupational requirements, occupation-specific requirements, occupational characteristics and worker characteristics.

b) **Position Analysis Questionnaire**: Position Analysis Questionnaire (PAQ) is a very structured job analysis questionnaire filled by a job analyst himself. PAQ divides information into 6 categories such as Information input, mental processes, work output relationships, Job context and other characteristics
c) **Management Position Description Questionnaire**: Management Position Description Questionnaire (MPDQ) is a standardized system specifically designed for use in analysing managerial jobs. The MPDQ method examines a variety of managerial dimensions, including decision making and supervising.

### 4.4 Sources of Job Information

Different sources are available for getting the proper and complete information about a particular job.

- **a) Institutional or Departmental Head**: The Institutional or departmental head is more concerned about the overall situation of the institute. The analyst frames a questionnaire and collects the information from the head of the institutes.

- **b) The Supervisor**: The immediate supervisor is closer to the jobholder than the line manager or head. The supervisor is the source to know the precise information about the job as he has good understanding what is being done and how it is done in a job.

- **c) The Job-Holder**: The person doing the job is the most important source of information about the job. The information which is not known previously about the job, the problem areas of the job may be obtained from the job holder.

- **d) The Leaving Interview**: The job analyst can obtain great information from the person leaving the job regarding the views about what type of the job is, what is going on, what are the personal relationships, what is the workers’ view of the
management and what sort of improvement would be useful to improve and clarify jobs from the resigning person’s viewpoint are the type of information obtained from the person leaving the job.

4.5 Steps in the Process of Job Analysis

The major steps to be followed in carrying out job analysis are as follows:

a) Organization Analysis: At the very beginning the overall view of different categories of jobs and number of jobs are collected. The organization chart and the work flow is an important source of information for the purpose.

b) Uses of Job Analysis Information: What are the possible uses of information pertaining job analysis are identified concerning the organizational priorities and limitations.

c) Selection of Jobs for Analysis: In this step the sample jobs are selected for purposes of job analysis

d) Collection of Data: After selecting the job for job analysis, data are collected on the characteristics of job.

e) Preparation of Job Description: The information collected during data collection is used in preparing a job description for the job highlighting major tasks, duties, and responsibilities for effective job performance.
f) **Preparation of Job Specification**: Similarly, the information gathered during data collection is also used to prepare the job specification for a job highlighting the personal attributes required in terms of education, training, aptitude and experience to fulfill the job description.

### 4.6 Job Description

Job description is an important outcome of job analysis which is basically descriptive in nature containing a statement of the job, what the job is, what the specific duties and responsibilities, qualifications required, what general conditions and situational factors are involved etc. There is no universally accepted standard format for job description. Therefore, the structure of job description depends upon the kind of work being analysed and job evaluation plan. Job description must specify the title of the job and its position in the organisation, summarise the tasks performed and list the skills and abilities required.

#### 4.6.1 Design of Job Description

Job description contains brief, factual and precise information about the job as far as possible. A complete job description should precisely contain the following categories of information:

a) **Job title**: It represents a summary statement of what the job entails.

b) **Job objective statement**: This statement is generally a summary designed to orient the general nature, level, purpose and objective of the job.

c) **List of duties or tasks performed**: The list contains an item-by-item list of principal duties, continuing responsibilities and accountability of the job.
position. The list should contain each and every essential job duty or responsibility that is critical to the successful performance of the job. The list should begin with the most important responsibilities first and continue down in order of significance of work.

d) Description of relationships: The list includes explanation about the relationship between job holder and the supervisory positions, subordinating roles and other working relationships.

e) Supervision: It states the number of persons to be supervised along with their job title.

f) Machine, tools and equipment used: It explains the use of machine, tools and technique by the job holder.

g) Hazards: It states the nature of risks to life and possibilities of occurrence.

### 4.6.2 Guidelines for Writing a Job Description

The following are some guidelines which help in writing job description.

a) Truthful about what is expressed.

b) Skipping non attributes information

c) Generalized or ambiguous expressions, such as ‘prepare’, ‘assist’, ‘handle’ etc. should be omitted

d) All statements should be clearly defined and simply set down- promiscuous use of adjectives only reflects one’s own opinion.

e) Description of job is being done by majority of workers holding the designation.

f) Simple language should be used while writing the job description.
g) The job, which is a part of teamwork, should establish the team relationship in description.

h) Job description should be revised often when the changes in the job happen.

i) Job description should have the agreement of the concerned supervisor.

j) At the end of job description, initials of the persons who compile them should be given.

4.6.3 Uses of a Job Description

Apart from being a basis for job evaluation, the job description has several uses, such as:

a) **Supervisor to Employee Communication**: Job description is a document which affords supervisor and subordinate communication as it contains outline of the work to be done in a job.

b) **Recruitment, Selection, Promotion, and Transfer**: The information available in job description can be used as a sound basis for recruitment; selection, promotion and transfer.

c) **Work Performance Appraisal**: Work performance appraisal may be examined with the help of job description as it indicates details about the work, duties and responsibilities performed by the jobholder.

d) **Manpower Planning, Training and Development**: As job description shows the knowledge, skill and ability requirement for effective performance of the
duties, therefore, it acts as a rational basis for manpower planning, training and development.

e) **Organisation and Procedure Analysis:** The duties and responsibilities outlined in the job description may be used for greater advantage by management in analysing organisation and procedures, because they reveal how the work is organised, how the procedures are operated and how authority and responsibility are apportioned.

### 4.7 Job Specification

Job specification is a derivation from the job description, which emphasises on the personal characteristics required by the person holding the job. Job specification includes academic qualifications, professional qualifications, age, years of experience, relevance and nature of previous experience, and other skills and attitudes, the minimum eligibility requirements, which the candidate must have, for the appointment to a job. The format for job specification should include the following items:

a) Position Title  
b) Education/ Training  
c) Experience  
d) Knowledge  
e) Abilities  
f) Skills  
g) Aptitude
h) Desirable Attributes

4.8 Linkages between Job Description, Specifications and Analysis

Job description is a broad statement of the purpose, duties and responsibilities of a job or position. A job description is based on a detailed job analysis and usually summarises the essential information gathered through job analysis. They describe the main tasks and responsibilities of the job clearly and concisely in order to facilitate the systematic comparison of jobs for evaluation purposes. The kind of information and amount of detail contained in the job descriptions depend on the job evaluation plan to be used.

Job specifications are mainly used in selecting and recruiting staff and are accordingly not essential to job evaluations. But the certain personal attributes, such as experience, education and aptitude, may occur in both, the job description as well as the job specification. Many job evaluation plans accordingly use job specifications to complement job description.

4.9 Job Evaluation

Job evaluation is a systematic method for determining the relative worth of a job in comparison within and outside organization. Job evaluation consists of job analysis, job description, job specification, job grading, job classification and job assessment. It is the evaluation of the job but not the job holder.
Job evaluation is a method of establishing the value of jobs in a job hierarchy. Job evaluation is a comparative process based on a whole series of tasks, responsibilities and obligations, including the skills, knowledge and mental agility that require qualities of initiative, reliability of the employee and so on. Job evaluation aims at establishing pay structures that are fair and equitable.

Job evaluation deals with determination of the relationships between salary rates of jobs. In assessing the process of determining the relative worth of various jobs within the organisation differential wages may be paid to jobs of different worth.

**4.9.1 Objectives of Job Evaluation**

The primary objective of job evaluation is to find out the value of work. But this is a value which varies from time to time and from place to place under the influence of certain economic pressures. The aim of job evaluation is not to create a rate, but to discover what that rate is at that time and in that place. Some other objectives of Job Evaluation are described below:

a) To provide a base for salary negotiations founded on facts rather than on indistinct undefined ideas.

b) To disclose the irregularity of salary and pay structure

c) Helps rationalising or simplifying the system of pay structure by reducing number of separate and different rates

d) To determine not only what the job is worth but also the value of each of the aspects, such as, the skill and responsibility levels.
4.9.2 Method of Job Evaluation

After job analysis and preparation of job descriptions and job specification comes the essential stage of job evaluation for the systematic comparison of jobs in order to establish a job hierarchy. There are four basic methods of job evaluation.

a) The Ranking Method: The ranking method is used generally in a smaller unit. In this method an outline of job is prepared according to the hierarchy of the job group. The group may include either many jobs or one or few jobs. After that all the jobs are arranged or ranked in order of their importance from the simplest to the hardest. The ranking method involves five steps, namely, preparation of job description, selection of rates and key jobs, ranking of all jobs and preparation of job classification from the rating.

b) Job Classification or Grading Method: In this method, a pre-determined grades or classifications are prepared by a committee and then the various jobs are assigned within each grade or class. The group and class represent different pay levels ranking from low to high. This method is also suitable in case of small unit where less numbers of job are available. Five steps are involved in this method, such as, preparation of job description, preparation of grade description, selection of grade and key jobs, grading the key jobs, classification or grouping of all jobs.
c) **Point Method:** In this method a manual is prepared which outlines all elements or factors of each job and provides scales and index. This is the most widely used method of job evaluation. The compensable factors such as various job characteristics are identified. And then degrees are determined to which each of these factors are present in the job. Different numbers of points are assigned to each degree to its factor. After the degree of each factor is determined, the corresponding number of points of each factor is added and overall point value is obtained. The steps involved in this method are: determination of jobs, which are to be evaluated, selection of pre-determined number of factors, breaking down each factor into degrees or levels and assign a point value to each level or degree, determination of relative values or weights to assign to each factor, assignment of money value to points.

d) **Factor Comparison Method:** This method can be applied by a specialist who is perfectionist in the comparison and appraisal of job. The major job elements are selected first. These are not pre-determined as in the manual method. The major steps in this method are: clear –cut job description, selection of key jobs, ranking of key jobs, valuing the factors, comparing all jobs with key jobs, establishing the monetary unit value for all jobs.

### 4.9.3 Advantages of Job Evaluation

Both management and the employees are benefited from job evaluation. The advantages of job evaluation are as follows:
a) Job evaluation provides a superior pay structure and management is benefited from looking at its pay problems in a more disciplined way;

b) Job evaluation helps to ensure that differences in skills and responsibilities are properly recognised and when job holders increase their skills or take on more responsibilities, they are rewarded suitably

c) Job evaluation helps in manpower planning, recruitment, promotion, training, development and other management development programmes;

4.10 Job Analysis and Strategic Human Resource Management

Human Resource Management (HRM) is concerned with all aspects of employee management in an organization including strategic HRM, human capital management, knowledge management, organization development, human resource planning, recruitment and selection, and performance management, training and development, reward management, employee relations, health and safety.

Strategic Human Resource Management (SHRM) is the interface between HRM and strategic management. It is the action where a strategic design is implemented to attain the organizational goal. As SHRM emphasises on structuring and implementing the policies, hence job analysis and SHRM are inter-related to each other.

Job Analysis is an integral part of strategic planning which provides a detailed analysis of tasks and responsibilities, risks and hazards, functions and duties, tools and
equipments to be required. Job analysis helps to understand who to fit at a particular place and job. On the other hand, SHRM determines how to make use of human capital to achieve organizational goals.

Job Analysis determines the training needs of employees to increase productivity of the person as well as the organization. SHRM also decides when and how to train the employees to increase the output to achieve organizational goal.

Job analysis serves the base for SHRM of an organization to attain its goals and objectives.

Job analysis process determines the jobholders’ competency to perform the assigned job successfully, whereas SHRM determines strategies and policies to place right person at the right place and at the right time to get the maximum out of an employee. In other word, SHRM ensures optimum utilization of human resources.

4.11 Job Design

Job design is a logical sequence after job analysis. Job analysis provides job related data, kills and knowledge, whereas job design involves organization of tasks, duties and responsibilities in a work. Job descriptions and specifications can be used for designing or redesigning jobs. There is no one best way to design a job. Different situations call for different arrangements of job characteristics. Different emphasis may be placed on performance and satisfaction as desired outcomes.

Job design involves three steps
a) Specification of individual tasks

b) Specification of method of performing the task

c) Combination of tasks into specific jobs to be assigned to individuals.

4.11.1 Job Design Approaches

a) Scientific Management Approach: This approach is also known as engineering approach. This approach is the earliest approach of job design which was propounded by F. W. Taylor, the father of scientific management. This approach states the standardization of jobs into the single best way by which they can be performed. This approach intends for systematic and specific determination of job description for each job. This approach emphasise on monetary compensation as reward for successful performance of the job.

b) Behavioural Approach: This approach is also known as human relation approach which recognizes the need to design jobs which are interesting and rewarding. Herzberg’s research popularized the notion of enhancing need satisfaction through job enrichment. According to Herzberg, the employee is dissatisfied with the job if required maintenance factors to the required degree are not introduced into the job.

c) Socio- Technical System Approach: The socio-technical approach is accompanying both technical system and social system when designing a job. Job design through socio-technical approach requires the combined efforts of employees, supervisors and union repetitive in analysis significant job
operation. This approach emphasis on designing a job by taking holistic or systems view of the entire job situation, including its physical and social environment.

### 4.11.2 Factors Affecting Job Design

Job design is affected by organizational, environmental and behavioural factors. A properly designed job makes a job satisfying.

**a) Organizational Factors:** Characteristics of task, work flow, ergonomics and work practice are considered as organizational factors affecting job design. Job design requires the assembly of a number of tasks according to characteristics of task into a job or a group of jobs. The flow of work in an organization is influenced by the product and service which suggest the sequence and balance of the task. Ergonomics is concerned with designing the job to fit physical abilities of individuals. Work practice is determined by time and motion study which determines the standard time needed to complete a job.

**b) Environmental Factors:** Environmental elements affect all aspects of HRM, on exception in case of job design also. The external factors are employee abilities and availability, social and cultural expectation.

**c) Behavioural Elements:** Behavioural factors which affect job design are feedback, autonomy, use of abilities and variety. Feedbacks are received from the individuals about their performance at a job. The absence of autonomy,
which provides decision power, can cause employee’s poor performance. Use of ability in a job makes a job holder to perform a job effectively. Variety is another behavioural element by which personnel specialist can reduce errors in a job.

### 4.11.3 Techniques of a Job Design

The popular techniques of a job design are work simplification, job rotation, job enlargement and job enrichment.

**a) Work Simplification:** In this work specification technique a job is broken down into small sub parts and each part is assigned to one individual. Work specification is done so that the less trend and less paid employees can do this job. This technique is adopted in case of jobs which are not specialized enough in nature. This technique may have negative outcome as over simplification of job results in boredom with attendant risk or errors and resignations.

**b) Job Rotation:** Job rotation means movement of employees from one job to another job. In case of job rotation employee performs different jobs of same category in nature. It has both positive and negative side. Job rotation may increase reward potential of a job as different skills and abilities are needed to perform the different jobs. Job rotation may not have much impact on employee enthusiasm and efficiency. In job rotation technique workers may feel rootless.

**c) Job Enlargement:** Job enlargement means expanding the number of tasks and duties assigned to a given job. Job enlargement is opposite to work
simplification as adding a new duty to a job does not mean necessity of new skills and abilities to perform it. Job enlargement is horizontal expansion of a job. Job enlargement has positive outcome as it may claim to have motivational impact and it may have negative impact on employees likely to be resisted.

d) **Job Enrichment:** Job enrichment means to improve both task efficiency and human satisfaction by giving greater scope for personnel achievement and recognition. More challenging and responsible work provides more opportunity for individual advancement and growth in job. It has positive outcome as it increases motivation, reduces absenteeism, psychological needs of employees are needed. It has negative outcome as job holder may not like to accept new responsibilities.

e) **Autonomous Work Team:** Autonomous or self directed work team is an intact group of employees who are responsible for the whole work process or segment that delivers product or services to an organization. The self directed team members work together to improve their operations, handle day to day problems, and plan and control their work. In autonomous work team technique involvement of employee brings commitment and decision making. It has negative outcome as there is resistance from employees unions and managers.

f) **High Performance Work Design:** This technique of job design means to improve performance in an environment where positive and demanding goals are set. This technique starts from developing an autonomous team working and
develops an approach enabled team to work effectively together in a situation where the rate of innovation is high. This technique has positive outcome as it works in an environment of high rate innovation rational freedom. It has also negative outcome as it may work in large bureaucratic organization.

4.12 Job Analysis and Total Quality Management (TQM)

Job analysis deals in investigating each job separately and collecting the job-related information. On the other hand, Total Quality Management (TQM) concentrates on teamwork, integrity, continuous improvement and continuous assessment of jobs.

Job Analysis is not consistent with TQM. Both the entities focus on entirely different theories and operate on different models. Still job analysis has lost its relevance in today’s world. It has its own importance and is still required to be carried out as it gives basic information related to specific jobs and helps managers in decision making process. Job analysis assists in management processes including recruitment and selection, job evaluation, performance evaluation and appraisal and training and development need analysis.

Job analysis helps in TQM process. TQM does not confine employees only to a particular job. But it determines scope for additional duties along with the basic duties. Job analysis determines the basic duties of a job whereas TQM determines the additional work load to a job to achieve organisational goal and optimum resource utilization in an organization.
4.13 Impact of Job Analysis on Job Satisfaction

Job analysis may impact on job satisfaction. If managers want good results from the job analysis, a good communication inside the organization is necessary. The discussion of job description with the employee makes employee feel better in their job. Through job description, a job holder gets the description of the objective of the organization, the tasks to be accomplished, which makes the jobholder satisfied by receiving the responsibilities. The job description gives a clear picture about the job which reduces the difficulties and obstacles of a job and this leads to make a jobholder satisfied.

4.14 Impact of Job Analysis on Performance

Regular job analysis process makes an organization to better understand about the capabilities and limitations of the job holders. Thus different corrective actions may be taken to improve the deficiencies in the job. A positive job analysis also contributes to personnel utilization by promoting positive job attitudes and work commitment. Job analysis can be used to identify factors that shape the jobholder’s motivation and job satisfaction. The practical experience of most organizations indicates a positive impact of job analysis leading to generate administrative efficiency and cost savings, better organizational climate and improved productivity and growth of an organization.

4.15 Job Analysis and Library Professional

Library professionals are increasingly responsible not only to provide traditional library information services but also to deliver online information services according to the user needs. Librarians need to keep up to date with their users’ expectations to make
them survive and serve them. Many professionals are going through many occupational changes to face the future challenges. ICT has changed the role of not only libraries but also library professionals in the changing environment in which they now work.

As the information industry has changed, the expectations of information users have soared and librarians have come to fear for their positions and profession. As we race into the future, librarians should begin to think about the position of the library in the new environment. LIS professionals are functioning under great pressure to keep pace with the constantly changing technological environment. Today, librarians have to play multiple evolving and expanding roles to face many new challenges in the dynamic technological environment. A librarian must be a professional expert, techno literate, web usability expert, knowledge manager, navigator, trainer, educator, marketer, service provider and many more.

Job analysis helps the LIS professionals to identify the different job positions involving in this profession. Job description and job specification provides the LIS professional a well organized picture about the duties and the responsibilities to be done. A well structured pay structure derived from job evaluation helps the LIS professionals to know the pay and remuneration involved in their services.

4.16 Job Analysis in S & T Institutes

Job analysis is the foundation for managing libraries and human resources. The main purpose of conducting job analysis is to prepare job descriptions and job specifications which help a library establish operational systems and conduct work efficiently and
effectively, by offering a good look into the knowledge, different technology, functions and responsibilities associated with certain positions in the library. S & T institute libraries should establish and consolidate HR management systems in such a way as to ensure increased expertise among library professionals by tracing the impact of the introduction of computers and the advancement of the internet and IT on their working environments and functions. This could be accomplished by eliminating unnecessary duties and by promoting acquisition of new knowledge and skills that are required by the newly emerging duties and responsibilities.

It is hoped that job analysis will help S & T institutes with the human resources management and institutional development that is essential for appropriate job specification, organizational diagnosis, and increasing the expertise of library professionals. Job analysis will help S & T libraries to analyze the method and content of duties performed by their employees, identify the purpose and reasoning behind these duties, and present requirements for certain duties. When analyzing duties in order to develop a duty model, in particular, there should be a system through which similar duties are integrated, simplified and standardized depending on frequency, importance and difficulty of duties. Through this process, S & T libraries will be able to optimize human resources management and achieve efficiency in organizational management, as well as creating materials to support education, training and performance management.
4.17 Summing Up

For a successful career planning and prospects, a continuous professional development is an essential part. The Library Professionals with better personal, professional and technological competencies have great opportunities and bright future in the modern libraries. Job analysis will help the library professionals to brighten in their job position with their higher professional competencies.