

Recruitment & Selection!

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JOB ANALYSIS

1. Job Analysis: Meaning

When we refer to Job Analysis, we simply mean a purposeful, systematic process for collecting information on the important work-related aspects of a job. In simple terms, job analysis may be understood as a process of collecting information about a job. The process of job analysis results in two sets of data:

- i) Job Description
- ii) Job Specification.

Some possible aspects of work related information to be collected might include the following:

- 1) Work Activities - What a worker does, how, why, and when these activities are conducted.
- 2) Tools and Equipment used in performing work activities.
- 3) Context of the work environment, such as work schedule or physical working conditions.
- 4) Requirements of personnel performing the job, such as knowledge, skills, abilities (KSA) or other personal characteristics (like physical characteristics, interests or personality)

2. Job Analysis: Definition

Job Analysis may be defined as the process of studying jobs in order to gather, analyze, synthesize and report information about job requirements. Note in this definition that job analysis is an overall process as opposed to a specific method or technique.

3. Purpose of Job Analysis

Job Analysis information has been found to serve a wide variety of purposes. More recently, job analysis data have been used in areas such as compensation, training and performance appraisal among many others. Of particular interest here is the application of job analysis data in HR Selection. Broadly speaking in the context of HR selection, job analysis data are frequently used to:

- I. Identify employee specifications (KSA) necessary for success on a job.
- II. Select or develop predictors that assess important KSAs and can be administered to job applicants and used to forecast those employees who are likely to be successful on the job.
- III. Develop criteria or standards of performance that employees must meet in order to be considered successful on a job.

By examining factors such as the tasks performed on a job as well as the KSAs needed to perform these tasks, one can obtain an idea of what ought to be measured by predictors used in employment screening. When predictors and criteria are developed based on the results of a job analysis, a selection system that is job-related can be developed. By using a job related selection system we are in a much better position to predict who can and who cannot adequately perform a job. In addition, with a job related selection system, we are far more likely to have an employment system that will be viewed by job applicants as well as the courts as being a “fair” one.

4. Methods of Job analysis

4.1 Job Analysis Interviews

A Job Analysis interview consists of a trained analyst asking questions about the duties and responsibilities, KSAs required, and equipment and/or conditions of employment for a job or class of jobs. Job Analysis data collected through interviews are typically obtained through group or individual interviews with incumbents or supervisors. A job analysis interview may be structured or unstructured. For selection purpose, a structured interview is one in which specific questions are asked and means are available for recording answers to these questions (such as ratings scales or interview answer forms) is essential. An unstructured interview consists of a job analyst collecting information about a job without a specific list of questions developed prior to the interview. Because of the technical and legal issues involved in job analysis, a structured interview is much more likely than an unstructured one to provide the kind of job analysis data that can be used effectively in selection applications.

In the Context of HR Selection, a job analysis interview is typically performed for one or more of the following reasons:

- I. To collect job information- for example, information on job tasks – that will serve as a basis for developing other job analysis measures, such as a job analysis questionnaire.

- II. To serve as a means for clarifying or verifying information collected previously through other job analysis methods.
- III. To serve as a method, perhaps as one of several used, for collecting relevant job data for developing a selection system.

4.2 Job Analysis Questionnaire

Another commonly used job analysis method is getting the questionnaires filled from employees, their superiors and managers. This method consists of a questionnaire distributed to respondents who are asked to make some form of judgment about job information presented on the questionnaire. The questionnaire lists information such as activities or tasks, tools and equipment used to perform the job, working conditions in which the job is performed, and KSAs or other characteristics incumbents need to perform the job successfully. Respondents often use some form of a rating scale to indicate the degree to which various aspects of job information listed on the questionnaire apply to their jobs.

However, this method also suffers from personal biasness. A great care should be taken while framing questions for different grades of employees.

In order to get the true job-related info, management should effectively communicate it to the staff that data collected will be used for their own good. It is very important to ensure them that it won't be used against them in anyway. If it is not done properly, it will be a sheer wastage of time, money and human resources.

4.3 Task Analysis Inventory

A task analysis inventory is a questionnaire principally composed of a listing of tasks (100 or more tasks is not unusual) for which respondents make some form of judgment. Usually these judgments are ratings given by respondents using a task rating scale, such as frequency of task performance.

A task inventory often contains three major categories of information: a) Background Information on Respondents b) A listing of the job tasks with associated rating scales and c) other or miscellaneous information.

A task inventory is method to identifying—with the help of employees and managers—a list of tasks and their descriptions that are components of different jobs.

The list of task itself is not a job description, it is a method used in job analysis. It was initially developed by US military. This method was used when a large number of jobs in an occupational category are to be analyzed and incumbents cannot be interviewed individually.

Task inventory process:

- Incumbents can respond to tasks listed by interview.
- Rate the frequency, time spent of each task by analyst, supervisors, incumbents...
- These tasks then allow inferences about KSAs needed to perform the job
- The rating scales allow inferences about weighting KSAs & tasks in selection

4.4 Position Analysis Questionnaire

Position Analysis questionnaire (PAQ) is a standardized, structured job analysis questionnaire containing 195 items or elements. Of this total, 187 items concern work activities and work situations, seven relate to compensation issues, and the final item deals with the exempt or nonexempt status of the position being analyzed. These elements **are not** task statements. Rather they represent general work behaviors, work conditions or job characteristics.

Items on the PAQ are organized into six basic divisions or sections. These divisions and a definition are as follows:

- I. Information Input- Where and how a worker gets information needed to perform the job.
- II. Mental Processes- The reasoning, decision making, planning and information processing activities that are involved in performing the job.
- III. Work Output- The physical activities, tools and devices used by the worker to perform the job.
- IV. Relationship with other persons- The relationship with other people that are required in performing the job.
- V. Job Context- The physical and social context in which the work is performed.
- VI. Other Job Characteristics – The activities, conditions and characteristics other than those already described that are relevant to the job.

Rating scales are used in the PAQ for determining the extent to which the items are relevant to the job under study. Six different types of scales are used:

- I. Extent of Use: The Degree to which an item is used by the worker.
- II. Amount of Time: The Proportion of time spent doing something
- III. Importance to this job: The importance of an activity specified by the item in performing the job.
- IV. Possibility of Occurrence: The degree to which there is a possibility of physical hazards on the job.
- V. Special Code: Special rating scales that are used with a particular item on the PAQ.

On the whole, each of the rating scales consists of six categories. For example, the scale

“Importance to this job” is composed of the following ratings points.

- N (0) = Does not Apply
- 1= Very Minor
- 2= Low
- 3= Average
- 4= High
- 5= Extreme

The PAQ has served a variety of purposes. For the most part, the instrument has been used for-

- a) Predicting aptitude requirements for jobs.
- b) Evaluating Jobs and setting compensation rates.
- c) Classifying Jobs

Recently, the measure has been applied to other uses as well, such as grouping jobs into families, developing personnel evaluation systems, predicting stress associated with various jobs, and as an element in developing career planning systems.

4.5 Subject Expert Workshops

Subject Matter Expert (SME) Workshops consist of groups or panels of 10 to 20 job incumbents who work with a group leader to produce a job analysis. Because

participants are selected for their knowledge of the job, they are referred to as subject matter experts or SME.

There is no one particular format for conducting the workshops. However, the following general steps seem to characterize most workshops:

- a) Selecting and Preparing SMEs to participate in the workshop
- b) Identifying and rating job tasks
- c) Identifying and rating KSAs associated with these job tasks.
- d) When a Content validation study is being conducted, a fourth step is added. This step requires that the SMEs judge the relevance of a selection measure's content (for example, items on an employment test, or selection interview questions) to the job domain. In carrying out these steps, questionnaires and group interviews are often used to collect relevant job data.

4.6 Critical Incident Technique

The Critical Incidents Technique was originally developed to gather information to determine training needs and develop performance appraisal forms. The process is designed to generate a list of especially good and poor (critical) examples of performance (incidents) that job incumbent's exhibit. The object of the Critical Incident Technique is to gather information regarding specific behaviors that actually have been observed, not to gather judgmental or trait-oriented descriptions of performance. These behaviors are then grouped into job dimensions. The final list of job dimensions and respective critical incidents provide a great deal of qualitative information about a job and the behaviors associated with job success or failure. As the basic elements of information collected are job behaviors rather than personal traits, it is a work oriented procedure.

Each Critical Incident Consists
of

- a) A description of a situation
- b) The effective or ineffective behavior performed by a job incumbent
- c) The consequences of that behavior.

The result of the critical incidents technique is a list of events where employees performed tasks poorly or exceptionally well.

The critical incident technique (CIT) is a qualitative approach to job analysis used to obtain specific, behaviorally focused descriptions of work or other activities. Here the job holders are asked to describe several incidents based on their past experience. The incidents so collected are analyzed and classified according to the job areas they describe. The job requirements will become clear once the analyst draws the line between effective and ineffective behaviors of workers on the job.

For example, if a shoe salesman comments on the size of a customer's feet and the customer leaves the store in a huff, the behavior of the salesman may be judged as ineffective in terms of the result it produced. The critical incidents are recorded after the events have already taken place – both routine and non-routine.

The process of collecting a fairly good number of incidents is a lengthy one. Since, incidents of behavior can be quite dissimilar, the process of classifying data into usable job descriptions can be difficult. The analysts overseeing the work must have analytical skills and ability to translate the content of descriptions into meaningful statements.

4.7 Fleishman Job Analysis Survey

The F-JAS was developed by Edwin Fleishman to help identify worker specifications for a job, job dimension, or task. It is a worker-oriented approach to be applied once job duties have been identified.

The F-JAS consists of behaviorally anchored rating scales for 52 abilities. Each of the abilities is classified into one of four general ability categories, including

- a) Cognitive
- b) Psychomotor
- c) Physical
- d) Sensory/Perceptual

Job experts are asked to determine the level of each ability required to perform the job. In addition to the 52 ability scales, research is being conducted on several other scales. Information is being collected on the following research dimensions:

- a) Interactive/Social : The research scale includes 9 items
- b) Knowledge/Skill Scales: The research scale includes 11 items

In applying the F-JAS, several steps are involved that include the following:

- I. Determining Level of Analysis
- II. Selecting Job Agents
- III. Rating Ability Levels for Each Task
- IV. Analyzing Results
- V. Selecting Test

4.8 Functional Job Analysis

More than 50 years ago, Sidney Fine and his associates recognized that one of the problems in studying work is the imprecision of language used in describing jobs. As a consequence, efforts were undertaken to begin work on a system for accurately defining and measuring worker's job activities. The system that emerged was labeled Functional Job Analysis.

Two types of task information are obtained from FJA:

- a) What a worker does, that is, the procedures and processes engaged in by a worker as a task is performed.
- b) How a task is performed in context of the physical, mental and interpersonal involvement of the worker with the task. These type of information are used to clarify both what a worker does and the results of those job behaviors.

When using FJA, judgments about jobs are based on at least two premises:

- I. All job require workers to deal, in some degree, with people (clients, customers, co-workers etc.), Data (Information or Ideas) and Things (machines or equipment)
- II. The tasks a worker performs in relation to People, Data and Things can be measured by rating scales.

Functional Job Analysis is frequently applied by an analyst working with job incumbents, either individually or in groups. The objective is to describe what a worker does in performing the job-**not what** gets done.

4.9 Job Element Method

Whereas many of the methods of job analysis we have examined begin with identification of tasks or basic work functions, the Job Element Method (JEM) developed by Ernest Primoff has a different orientation. Basically, it is a worker-oriented process designed to identify the characteristics of superior workers on a job. Supervisors or incumbents develop a list of these characteristics and then rate them in such a way that the characteristics essential to superior performers are delineated. These qualities are what Primoff calls job elements.

Job elements include a wide variety of characteristics that describe superior performers on a job. These elements consist of workers characteristics such as the following:

"A knowledge, such as knowledge of accounting principles; a skill, such as skill with woodworking tools; an ability, such as ability to manage a program; a willingness, such as willingness to do simple tasks repetitively; an interest, such as interest in learning new techniques; or a personal characteristics, such as reliability or dependability."

Once identified, the elements are translated into more specific employee characteristics called sub elements. For example, the element *Ability to Make Electrical Calculations* may have been identified for the job of Industrial Electrician. Sub elements for this element might be the following: a) Determining the voltage across a resistor in a series circuit. b) Computing power in a circuit for given levels of voltage and amperage.

4.10 Repertory Grid

The repertory grid technique (RGT or RepGrid) is a method for eliciting personal constructs, i.e. what people think about a given topic. Methodology of repertory grid is used for identification of competencies.

It was devised by George Kelly in around 1955 and is based on his Personal Constructs theory of personality.

The repertory grid is a technique for identifying the ways that a person construes (interprets/ gives meaning to) his or her experience. It provides information from which inferences about personality can be made, but it is not a personality test in the conventional sense. It is underpinned by the Personal Construct Theory developed by George Kelly first published in 1955.

A Grid consists of four parts:

1. A Topic: it is about some part of the person's experience
2. A Set of Elements, which are examples or instances of the Topic. Working as a clinical psychologist, Kelly was interested in how his clients construed people in the roles they adopted towards the client, and so, originally, such terms as 'my father', 'my mother', 'an admired friend' and so forth were used. Since then, the Grid has been used in much wider settings (educational, occupational, and organizational) and so any well-defined set of words, phrases, or even brief behavioral vignettes can be used as elements. For example, to see how I construe the purchase of a car, a list of vehicles within my price range could make an excellent set of elements.
3. A set of Constructs. These are the basic terms that the client uses to make sense of the elements, and are always expressed as a contrast. Thus the meaning of 'Good' depends on whether you intend to say 'Good versus Poor', as if you were construing a theatrical performance, or 'Good versus Evil', as if you were construing the moral or ontological status of some more fundamental experience.
4. A set of ratings of Elements on Constructs. Each element is positioned between the two extremes of the construct using a 5- or 7-point rating scale system; this is done repeatedly for all the constructs that apply; and thus its meaning to the client

is captured, and statistical analysis varying from simple counting, to more complex multivariate analysis of meaning, is made possible.

Constructs are regarded as personal to the client, who is psychologically similar to other people depending on the extent to which s/he would tend to use similar constructs, and similar ratings, in relating to a particular set of elements. And it is the way that the constructs are identified that makes a Repertory Grid unique.

The client is asked to consider the elements three at a time, and to identify a way in which two of the elements might be seen as alike, but distinct from, contrasted to, the third. For example, in considering a set of people as part of a topic dealing with personal relationships, a client might say that the element 'my father' and the element 'my boss' are similar because they are both fairly tense individuals, whereas the element 'my wife' is different because she is 'relaxed'. And so we identify one construct that the individual uses when thinking about people: whether they are 'Tense as distinct from Relaxed'.

Practical Component:

1. Students need to identify two jobs in the college and need to do job analysis for those positions using any of the job analysis methods.
2. In teams students can be asked to give presentations about various types of jobs (regular, temporary, full time, part time, apprentice, contractual, and outsourcing) in different industries along with its advantages and disadvantages
3. In Teams, select and analyze any two of the Job postings advertisements in Newspapers to know more about job description and job specification mentioned in each advertisement for every post.
4. Obtain online access to the resume data base of Naukri.com or Monsterindia.com for a week give at least four Job Descriptions and specification to each student, to search and download from the data base at least five resumes for each positions.

5. Students can identify 4 or 5 jobs of their interest and can create Advertisements for the same imagining that they are Proprietors of the companies and hiring for these positions.
6. Debate on Advantages and disadvantages of hiring external and Internal for the selected jobs like Police Constable, Doctor, CEO, Mechanical Engineer, Professor etc.,
7. Role play: Students can do the role play for the entire process of hiring and selecting 3 or 4 selected roles in a specific industry.

RECOMMENDED BOOKS:

1. Human Resource Selection by Robert D. Gatewood and Hubert S. Feild, South western Cengage Learning, Mason, Ohio 2001
2. Staffing Organization, Herbert G. Heneman III, Timothy A. Judge, 5th Edition, McGraw Hill International

REFERENCE BOOKS:

1. Employee Selection, Lilly M Berry, Thomson Publications
2. Hiring & keeping the best people, HBS Press
3. Human Resource Planning, Dipak Kumar Bhattacharyya, 2nd edition, Excel BOOKS.
4. High performance hiring by Robert w. Wendover, Crisp Publication, California, 1991.