#### **SESSION 1 ANALYSIS OF POST**

# **HUMAN FACTOR II**

**ANALYSIS OF POST ANALYSIS OF POST** 

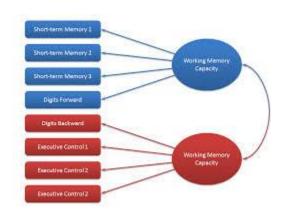
SESSION 1 ANALYSIS OF POST ANALYSIS OF POST

## SESSION 1 Job Analysis



Job Analysis is a process to identify and determine in detail the particular job duties and requirements and the relative importance of these duties for a given job. Job Analysis is a process where judgments are made about data collected on a job.

The Job; not the person An important concept of Job Analysis is that the analysis is conducted of the Job, not the person. While Job Analysis data may be collected from incumbents through interviews or questionnaires, the product of the analysis is a description or specifications of the job, not a description of the person.



Purpose of Job Analysis

The purpose of Job Analysis is to establish and document the 'job relatedness' of employment procedures such as training, selection, compensation, and performance appraisal.

**Determining Training Needs** 

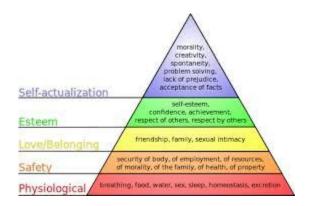
Job Analysis can be used in training/"needs assessment" to identify or develop:

# training content

assessment tests to measure effectiveness of training equipment to be used in delivering the training methods of training (i.e., small group, computer-based, video, classroom...)

# Compensation

Job Analysis can be used in compensation to identify or determine:



skill levels

compensable job factors

work environment (e.g., hazards; attention; physical effort)

responsibilities (e.g., fiscal; supervisory)

required level of education (indirectly related to salary level)

Selection Procedures

Job Analysis can be used in selection procedures to identify or develop:

job duties that should be included in advertisements of vacant positions;

appropriate salary level for the position to help determine what salary should be offered to a candidate;

minimum requirements (education and/or experience) for screening applicants;

interview questions;

selection tests/instruments (e.g., written tests; oral tests; job simulations);

applicant appraisal/evaluation forms;

orientation materials for applicants/new hires

Performance Review

Job Analysis can be used in performance review to identify or develop:

goals and objectives

performance standards

evaluation criteria

length of probationary periods

duties to be evaluated

Methods of Job Analysis

Several methods exist that may be used individually or in combination. These include:

review of job classification systems

incumbent interviews

supervisor interviews

expert panels

structured questionnaires

task inventories

check lists

open-ended questionnaires

observation

incumbent work logs

A typical method of Job Analysis would be to give the incumbent a simple questionnaire to identify job duties, responsibilities, equipment used, work relationships, and work environment. The completed questionnaire would then be used to assist the Job Analyst who would then conduct an interview of the incumbent(s). A draft of the identified job duties, responsibilities, equipment, relationships, and work environment would be reviewed with the supervisor for accuracy. The Job Analyst would then prepare a job description and/or job specifications.

The method that you may use in Job Analysis will depend on practical concerns such as type of job, number of jobs, number of incumbents, and location of jobs.

What Aspects of a Job Are Analyzed?

Job Analysis should collect information on the following areas:

Duties and Tasks The basic unit of a job is the performance of specific tasks and duties. Information to be collected about these items may include: frequency, duration, effort, skill, complexity, equipment, standards, etc.

Environment This may have a significant impact on the physical requirements to be able to perform a job. The work

environment may include unpleasant conditions such as offensive odors and temperature extremes. There may also be definite risks to the incumbent such as noxious fumes, radioactive substances, hostile and aggressive people, and dangerous explosives.

Tools and Equipment Some duties and tasks are performed using specific equipment and tools. Equipment may include protective clothing. These items need to be specified in a Job Analysis.

Relationships Supervision given and received. Relationships with internal or external people.

Requirements The knowledges, skills, and abilities (KSA's) required to perform the job. While an incumbent may have higher KSA's than those required for the job, a Job Analysis typically only states the minimum requirements to perform the job.

## 1 What is job analysis?

Job analysis is a systematic process for collecting and analysing information about jobs. Job analysis provides information about the work performed and the work environment. It also identifies the knowledge, skills, abilities and personal

competencies people need to perform their work well. In short, it is a method that provides a description of the job and profiles the competencies people need to be successful. Most definitions of job analysis identify three key points:

- Job analysis is not a single methodology it is a generic term which refers to a range of techniques, including observation, interview, and questionnaire based analysis
- Job analysis is structured the exploration of the role is guided and focused, although the degree of structure varies with the technique used
- Job analysis is analytical. The process attempts
  to break the job down into its component parts,
  rather than to describe the job as a whole.
   Depending on the application, job analysis may
  look at jobs in different ways:
- Job oriented procedures tend to

concentrate on the work itself, such as the equipment used, the typical working conditions, the end results of the job, etc

- Worker oriented procedures concentrate on the knowledge and abilities that are required in order that the job holder can perform the job effectively
- Behaviour oriented analyses look at the specific behaviours that take place in order that the job can be performed effectively.

  Note that these differences are not always clear cut. Given that job analysis data may be applied to a number of Human Resource functions, it is unlikely that any one particular method will perfectly suit all of them equally. Combining aspects of various methods, however, can provide information applicable for a variety of functions

# Step 4: Train the analysts

If you intend to use internal analysts you have to teach them how to use the selected methods.

# Step 5: Preparation of job analysis

• Communicate the project in the organization. • Preparing the documentation, for example: interview questions, questionnaires.

# Step 6: Collecting data

• Collecting data on job activities, employee behaviors, working conditions, and human traits andabilities needed to perform the job... • Using one or more of the job analysis methods to collect data.

# Step 7: Review and verify

Consolidate the results. You must review all data collected. This will help you to confirm that the information is factually correctand complete. How can review information? • Review data with his or her immediate supervisor. • Review data by technical conference (is a job analysis method). • Review data with incumbents by interview.

Step 8: Develop a job description and job specification

Implement the results into the company procedures according to the goal-setting. Develop a job description and job specification from the job analysis information. A job description is awritten statement that describes the

activities and responsibilities of the job, working conditions and safety and hazards... A job specification summarizes the personal qualities, traits, skills, and background required for getting the job done.

Job analysis methodsOBSERVATION METHODS

Observation methods consist of direct observation, work methods analysis, technique of criticalincident.

#### 1.Direct observation

This form is based on analysis of job in order to observe and make records of behaviors/events/activities/tasks/duties when something is happening.

# 2. Work methods analysis

The form of analysis on work methods is applicable to describe manual and repeated manufacturing jobs, for example the jobs of assembly-line. Such analysis on work methods consists of analysis of time, motion study and micro-motion.

# 3. Critical incident technique (CIT model).

The method of critical incident technique is applied to discovers behaviors towards working which canhelp classify performance into good and bad level.

#### **4.INTERVIEW METHOD**

This tool is considered to be very useful to analysis of jobs. In which questions are given to bothincumbents and supervisors under such form of individual or a group. Interview consists of structuredInterviews, unstructured interview, open-ended questions

#### QUESTIONNAIRE METHODS

Questionnaire methods includes 6 techniques as follows:

5. Position Analysis Questionnaire (PAQ model)

The model of PAQ is a technical of questionnaire for analyze jobs. In 1972, McCormick, Jeanerette, and Mecham (1972) developed this technique which is a structured instrument of job analysis tomeasure characteristics of job and then associate them with characteristics of human. Such technique includes 195 job elements that describe generic human behaviors during working.

6.Functional job analysis (FJA model)

The model of FJA is a technique uses to analyze jobs.the Employment and Training Administration of the United States Department of Labor developed thistechnique. There are7 scales (numbers) of the technique that measure: 3 worker-function scales:measure % of time spent with: data, people, things; 1 worker-instruction scale; 3 scales that measurereasoning, mathematics, language.

7. Work Profiling System (WPS model)

The method of Work Profiling System is a technique of questionnaire to analyze jobs. The techniquemakes use of a computer-administered system and discovered by Saville & Holdsworth, Ltd.

#### 8.MOSAIC model

The model of MOSAIC is a technique used to analyze jobs by gathering information from bothincumbents and supervisors. The model includes 151 job tasks which are ranked based on the level of importance to make sure that job performance is maintained efficient and 22 capacities which are ranked based on the level of importance, and also necessary effectiveness at entry.

# 9. Common Metric Questionnaire (CMQ model)

This style was created by Harvey and regarded as a job analysis of "worker-orientation". It is designed to be widely applied in a wide range of both exempt and nonexempt jobs. There are 42 generalquestions in the background section, 62 questions on contacts with people, 80 questions relating todecision-making, 53 questions of activities in terms of both physical and mechanical, and 47 questionson setting of work.

## 10.Fleishman Job Analysis System (FJAS model)

It includes 52 cognitive, physical, psycho-motor, and sensory ability, each of the categories consists of two parts – an operational and differential definition and a grading

scale. The method called Fleishman Job Analysis System is a technique used to analyze jobs in which jobs

are described based on opinions of vital capacities. There are 52 cognitive, physical, psycho-motor, and sensory ability, each of them includes two parts: a grading scale and an operational and differential definition.

## OTHER METHODS11. Task Inventory

Indeed, a task inventory lists all discrete activities which create a certain job or certain company.

#### 12.Job element method

This style is somehow similar to the method of critical incident technique. The method concentrates onbehaviors during working and such consequences that the behaviors bring about more than look atabstract characteristics. This method was developed by Ernest Primoff.

# 13.Diary method

The method of diary is considered to be a very useful tool to analyze jobs. In this method, jobs areassessed thanks to workers' daily records or their lists of activities that they practice day by day...

# 14. Checklists and rating scales

In this method, jobs are analyzed by using a list keeping track of such job elements. Many questions can be raised, such as working purposes, key roles and responsibilities, organization; relationships; decision making; authority; Skills, knowledge, experience; working conditions.

# 15. Competency profiling

This form of job analysis is an activity that determines certain capacities which are characteristics of high levels of performance in a certain job. It includes skills, knowledge, capacities, values, interests, personalities.

## 16. Examining Manuals/reference materials

In analyzing jobs, the analysts use manuals/ or materials of reference including quality manual, humanresource manual, procedures, instruction, forms, job description...These documents are available sothat organizations can apply them in accordance with standards of ISO 9000.

# 17.Technical conference

This tool is of great usefulness in analyzing jobs based on Subject Matter Experts (SMEs). SMEs willimplement sessions of brainstorming to discover elements of jobs. In this method, SMEs can apply afull mix of all methods of job analysis.

# 18. Threshold Traits Analysis System (TTAS model)

In 1970, Felix Lopez developed the model of Threshold Traits Analysis System (TTAS model). Themodel includes a standard

set of 33 traits in which ability traits are "can do" factors while attitudinaltraits are "willing to do" factors.

Classification of job analysis m