

# Information Gathering

# What kinds of Information do we need?

- Information about the Firm/Organization
- Information about the User Staff
- Information about the Work Flow

# Information about the Firm/Organization

- Policies
- Goals
- Objectives
- Organization Structure

# Information about the User Staff

- Authority Relationships
- Job Functions
- Information Requirements
- Interpersonal Relationships

# Information about the Work Flow

- Work Flow
- Methods and Procedures
- Work Schedules
- DFD or Flowchart

# Where does Information Originate?

- Information is gathered from two principal resources:
  - Personnel or written documents from within the organization
  - and from the organization's environment.

# Continued...

- The Primary External sources of information are:
  - Vendors
  - Government Documents
  - Newspaper and Professional Journals

# Continued...

- The Primary Internal sources of information are:
  - Financial Reports
  - Personnel Staff
  - Professional Staff (Legal Counsel, auditor etc.)
  - System Documentation and Manuals
  - The User or User Staff
  - Reports and Transaction Documents



# Information Gathering Tools

- Review of Literature, Procedures and Forms
- On Site Observation
- Interviews and Questionnaires

# Review of Literature, Procedures and Forms

- Who uses the forms?
- How important are they to the user?
- Do the forms include all the necessary information?
- What items should be added or deleted?
- How many departments receive the existing forms? Why?

# Continued...

- How readable and easy to follow in the form?
- How does the information in the form help other users make better decisions?

# On Site Observation

- What kind of system is it? What does it do?
- Who runs the system? Who are the important people in it?
- What is the history of the system? How did it get to its present stage of development?
- What kind of system is it in comparison with other systems in the organization?
- Is it a fast paced or slow system to external crises?

# Observation Methods

- Natural- A natural observation occurs in a setting such as the employee's place of work.
- Contrived- A contrived observation is set up by the observer in a place like a laboratory.

# Continued...

- **Obtrusive-** An obtrusive observation takes place when the respondent knows he/she is being observed
- **Unobtrusive-** An unobtrusive observation takes place in a contrived way such as behind a one way mirror

# Continued...

- Direct- A direct observation takes place when the analyst actually observes the subject or the system at work
- Indirect- In an indirect observation the analyst uses mechanical devices such as cameras and videotapes to capture information

# Continued...

- Structured- In an structured observation the observer looks for and records a specific action
- Unstructured- These methods place the observer in a situation to observe whatever be pertinent at that time



# Problems in On Site Observation

- Intruding into the user's area often results in adverse reactions by the staff, therefore adequate preparation and training are important
- Attitudes and motivations cannot be readily observed
- Observations are subject to error due to the observer's misinterpretation

# Continued...

- Unproductive, long hours are often spent in an attempt to observe specific one time activities or events

# Interviews

- It is a face to face interpersonal role situation,  
in which a person called the interviewer,  
asks questions to another person,  
designed to gather information about a  
problem.

# Advantages of Interview

- It is a superior technique used for exploring areas
- It offers better opportunity to evaluate the validity of the information gathered.
- The interviewer can observe not only what they say and how they say.
- It is an effective technique for eliciting information about complex subjects

# Continued...

- Many people enjoy being interviewed, regardless of the subject

# Drawbacks of Interview

- The major drawback of an interview is the long preparation time

# The art of Interviewing

- It is an art.
- The primary requirements for a successful interview are to create friendly atmosphere and to put the respondent at ease.
- The interview proceeds with asking questions properly, obtaining reliable responses, and recording them accurately and completely

# Arranging the Interview

- It should be arranged so that the physical location, time of interview, and order of interviewing assure privacy and minimal interruption.
- Appointments should be made well in advance and interviewer should adhere to time period.



# Guides to a Successful Interview

Following steps should be taken:

- Set the stage for the Interview.
- Establish rapport; put the Interviewee at ease.
- Phrase questions clearly and succinctly.
- Be a good listener; avoid arguments.
- Evaluate the outcome of the interview.

# Guides to a Successful Interview..

- Set the stage for the interview
  - This is an ice breaking session, relaxed, informal phase where the analyst opens the interview.
  - The analyst adjusts his/her own image to counter that of the interviewee

# Continued...

- Establishing Rapport
  - A. Do not deliberately mislead the user staff about the purpose of the interview.
  - B. Assure interviewees confidentiality that no information will be released to unauthorized personnel

# Continued...

- C. Avoid showing off your knowledge or sharing information from other sources.
- D. Avoid acting like an expert consultant
- E. Respect the time schedules
- F. Do not promise anything you cannot deliver, such as advice

# Continued...

G. Dress and behave appropriately for the setting

H. Do not interrupt the interviewee

I. Avoid personal involvement in the affairs of the user's department

# Continued...

- Asking the questions

# Continued...

- Obtaining and recording the response- The analyst should make an effort to obtain information from the user

# Continued...

- Data recording and the notebook- Many systems fail because of poor data recording. So special care must be taken to record the data



# Questionnaires

- These are the questions to which individuals respond

# Advantages of Questionnaires

- It is economical and requires less skills to administer than the interview.
- A questionnaire can be administered to large number of individuals simultaneously
- Questionnaires ensure uniformity of questions
- In a questionnaire respondents give opinion without fear

# Continued...

- Respondents have time to think the questions over and do calculations to provide more accurate data

# Types of Interviews and Questionnaires

- The Unstructured Alternative
- The Structured Alternative

# The Unstructured Alternative

- It is a relatively nondirective information gathering technique.
- It allows respondents to answer questions freely in their own words.
- The responses are spontaneous rather than forced.
- System analyst should encourage the respondent to talk freely

# The Structured Alternative

- The questions are presented with exactly the same wording and in the same order
- Questions may be either closed or open ended.
- An open ended question requires no response direction or specific response

# Continued...

- Closed questions are those in which the responses are presented as a set of alternatives. There are five major varieties:
  - Fill in the blanks:
  - Dichotomous (yes/no type) questions:
  - Ranking scales questions
  - Multiple choice questions
  - Rating scales questions