

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.

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

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- 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?

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- 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.

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- **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

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- 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

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- 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

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- 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

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- 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

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- 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

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- 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

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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

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- Asking the questions

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

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- 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

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- 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

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- 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