

System Analysis Design

Chapter 4

Information Gathering

Learning Goals

- ☐ **Strategy to gather information for computerization.**
- ☐ **Various sources of information.**
- ☐ **Methods of searching for information.**
- ☐ **Interviewing techniques to gather information from line managers to top management.**
- ☐ **Methods of consensus for formulating requirements.**

Information Gathering Strategies

- ☐ **Identify Information Sources.**
- ☐ **Evolve a method of obtaining information from the identified sources.**
- ☐ **Use Information flow model of organization.**

Information Sources

- ☐ **Users of System.**
- ☐ **Forms and Documents used in the organization.**
- ☐ **Procedure manuals, rule books etc.**
- ☐ **Reports used by the organization**
- ☐ **Existing computer programs(If Any).**

Continue...

- ☐ Interviews are very important.
- ☐ Use organization chart.
- ☐ Understand the importance of the people who operate the system-Clerks,Line managers.
- ☐ Gather information from Middle level persons who have lot of experience
- ☐ Gather both qualitative and quantitative information & Observe how the organization works.

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?
- ☐ 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?

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.
- ☐ 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.
 - ❑ Many people enjoy being interviewed, regardless of the subject.

Interviews

☐ **Drawbacks of Interview:**

- ☐ long preparation time

Planning an Interview

- ☐ Make a list of people to be interviewed and in what order
- ☐ Plan and note down a list of questions to be asked
- ☐ Plan several interviews with same person- mainly to clarify doubts
- ☐ Interview groups as appropriate

Interviewing Technique

- ☐ **Make appointment.**
- ☐ **Assign time.**
- ☐ **Read background material.**
- ☐ **State purpose of interview.**
- ☐ **Be punctual and pay attention to what user says.**

Continue...

- ☐ Obtain both quantitative and qualitative Information
- ☐ Discriminate between essential and appropriate requirements
- ☐ State what you understand and get it confirmed
- ☐ Do not extend interview
- ☐ Summarize information gathered and get it checked by the interviewee

Use of Questionnaires

- ☐ Questionnaires useful for statistical data collection
- ☐ Useful when large number of persons have to respond
- ☐ Make questionnaires short
- ☐ Design questionnaires by enumerating objectives and data needed to meet the objectives
- ☐ Several follow-ups/personal interviews may be required to get questionnaires back from respondents

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
- ☐ 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

Closed Questions

- ☐ **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**

Information Gathering other Methods

- ☐ Existing system(If any)
- ☐ Systems in similar organization
- ☐ Observe workflow in workplace
- ☐ Case repository in own organization