Fact Finding Techniques

- Fact finding is process of collection of data and information based on techniques which contain following techniques.
    1. Questionnaires
    2. Interviews
    3. Observation of the work environment
    4. Sampling of existing documentation, forms and databases
    5. Research and Site visits
    6. Prototyping
    7. Joint requirements planning

- System analyst uses suitable fact-finding techniques to develop and implement the current existing system.
- Fact-finding techniques are used in the early stage of System Development Life Cycle including system analysis phase, design and post implementation review.

1. Questionnaires

- Questionnaires are also one of useful fact-finding technique to collect information from large number of users.
- Users fill up the questions which are given by the system analyst and then give the answers back to the system analyst.
- May be paper-based or electronic
- Select participants using samples of the population
- To fulfil the requirements of the system objective, system analyst should have the ability to clearly define the design and frame of questionnaires.

Types of Questions	Examples
Closed-Ended Questions	• How many telephone orders are received per day? • How do customers place orders? • What information is missing from the monthly sales report?
Open-Ended Questions	• What do you think about the way invoices are currently processed? • What are some of the problems you face on a daily basis? • What are some of the improvements you would like to see in the way invoices are processed?
Probing Questions	• Why? • Can you give me an example? • Can you explain that in a bit more detail?

Advantages of Questionnaires

- People can fill the forms and give answers freely to the analyst.
- This technique is inexpensive.
- Users are more willing to response real answer as they do not need to give their personal information.
- Responses can be calculated and analyzed quickly.

Disadvantages of Questionnaires

- Incomplete answers will be received from users.
- Analyst cannot observe the body language of user responses.
- Good questionnaires are difficult to prepare.

2. Interviews

- Interview is the most used technique to collect information from the face-to-face interviews.
- The purpose of interview is to find, verify, clarify facts, motivate end-users involved, identify requirements and gather ideas and opinions.
- The role of interview includes interviewer who is system analyst and interviewee who are system owner or user.
- Interviewing technique needs good communication skills for interaction between system analyst and user.

There are two types of interviews.
1. **Unstructured interviews -** allows user to answer freely in an appropriate way.
2. **Structured interviews -** used to limit answers to specify choices, short and direct responses from the interviewees.

Basic steps:

1. Selecting Interviewees
2. Designing Interview Questions
3. Preparing for the Interview
4. Conducting the Interview
5. Post-Interview Follow-up

Disadvantages of Interviews
- Interviewing is time consuming and costly mechanism in fact-finding technique.
- Moreover, the communication skills of the system analyst affect the success of interview.

Advantages of Interviews

- By motivating interviewees, they have confident to answer the questions more effectively.
- System analyst can examine the more feedbacks from the interviewees.
- System analyst can prepare questions for interviewees to be more suitable or change the questions for every individual.
- System analyst can know the nonverbal communications of interviewees by perceiving the body movements and facial expression.

3. Observation of the work environment

- In this technique, system analyst participates in the organization, studies the flow of documents, applies the existing system, and interacts with the users.
- Observation can be a useful technique when the system analyst have user point of view.
- Sampling technique called work sampling is useful for observation.
- By using this technique, system analyst can know how employees spend their days.

Questionnaire (Realist, Positivist, Quantitative?)	Interviews (Relativist, Interpretivist, Qualitative?)
o Larger data sets	❖ Smaller data sets
o Frequencies	❖ Meaning
o Statistical info	❖ Language
o Measuring response	❖ Lived experience
o Closed/Open Q's	❖ Open Q's
o Knowing	❖ Understanding
o Cost	❖ Cost