

Solved Question Paper June 2016

System Analysis And Design

3.c) Explain any three fact finding techniques. Give their merits and demerits. (Write any three)

Fact finding techniques are techniques used by the system analyst to collect data related to the existing system. This may include data about the organization, staff, documents used, formats used in the input and output processes.

The different fact finding techniques are : interviews, group discussions, site visits, presentations, and questionnaires. System Analysts uses the techniques to know the requirements of the system.

1. Questionnaires : These are special purpose documents that allow the analyst to collect information and opinion from respondents. With this technique, it is possible to collect responses or opinion from a large number of people. This is the only way to get response from a large audience.

Types of questionnaires :

1. Free formed questionnaires : are questionnaires where questions are mentioned along with blank spaces for responses.
2. Fixed formed questionnaires : are questionnaires which consist of multiple choices and the respondent can select only from the choices provided.

Various types of fixed formed questionnaires :

1. True/false or yes/no type questions.
2. Questions whose response will be one of the choices : strongly agree, agree, disagree.
3. Ranking type questions (ranking items in order of importance)
4. Multiple choice questions (select one response or all the relevant responses).

Advantages:

1. It is an expensive means of collecting the data from a large group of individuals.
2. It requires less skill and experience to administer questionnaires.

-
3. Customers can complete it at their convenience.
 4. Responses can be tabulated and analyzed quickly.
 5. Proper formulation and interaction with respondents leads to unbiased response from the customers.

Disadvantages:

1. Number of respondents may be low.
2. There is no guarantee that the respondents will answer all questions.
3. Sometimes, individual may misunderstand the question. In such a situation, the analyst may not get right answer.

-
2. Presentations : It is another way of finding the facts and collecting data. It is the way by which the system analyst gathers first hand knowledge of the project. Customer makes a presentation of the existing system or about the organization. Participants in the meeting are representatives from the IT company and key personnel of the client organization. Presentation is made by the concerned department in consultation from other departments and senior officials.

Disadvantage :

1. Its very difficult to obtain information in detail from a presentation.
2. Information through presentation is sufficient to develop a prototype.
3. Group Discussions: In this method, a group of staff members who are expected to be well versed in their own wings of the organisation are invited. The analysts will have a discussion with the members for their views and responses to various queries posed by them. Individuals from different sections gather together and will discuss the problem at hand.

At the end, they come to an optimum solution. In this process, the problems of all sections are taken care of most of the cases, solutions are found which are acceptable to everyone.

Disadvantage :

1. It is very difficult to get all the concerned people together at a time.

Advantage :

1. A mutually acceptable solution can be found.
4. Site Visits : The engineers of the development organisation visit the sites. The systems analysts visit sites to get first hand information of the working of the system. System analyst watches the activities of different staff members to learn about the system. This method is used when there is confusion about the validity of data collected from other sources. The main objective of site visit is to examine the existing system closely and record the activities of the system.

Advantages :

1. The process of recording facts site visits is highly reliable.
2. site visits take place to clear doubts and check the validity of the data.
3. Site visit is inexpensive when compared to other fact finding techniques.
4. In this technique, systems analyst will be able to see the processes in the organization at first hand.
5. The systems analyst can easily understand the complex processes in the organization.

Disadvantages :

1. People may feel uncomfortable when being watched; they may unwillingly perform their work differently when being observed.
2. Due to interruptions in the task being observed, the information that is collected may be inaccurate.
3. Site visits are done during a specific period and during that period, complexities existing in the system may not be experienced.
4. There may be scheduling problems for the systems analysts when the activities take place during odd hours.
5. Sometimes, people may be more careful to adopt the exact procedure which they do not typically follow.

The following guidelines need to be followed at the time of observation and site visit:

1. Keep a low profile at the time of site visit.
2. Take necessary permissions from appropriate officials to conduct site visit.
3. Inform the individuals who will be observed at the time of site visit.
4. Take notes of the study of site visit immediately.
5. Do not make any assumptions.
5. Interview : Personal interview is a recognized and most important fact finding technique. In this method the system analyst gathers information from individual through face to face interaction. Interviews are used to find the facts, verify the facts, clarify facts, get the customer involved, identify the system requirements and know all options. The interview is conducted by system analyst. The interviewer must have personality which helps him/her to be social with strangers or different types of people. Interviews are not appropriate for all situations.

Types of interviews :

There are two types of interviews:

- Structured; and
- Unstructured.

Structured : In structured interviews, there is a specific set of questions to be asked to an interviewee.

Unstructured : In unstructured interviews, there are few specific questions pertaining to an interviewee. But we can have questions that are common to all interviewees. These are conducted with only a general goal or subject in mind.

Conducting interview is an art. The success in interview depends on selecting the individual, preparing for the interview, creating situation in which the answers offered are reliable and creating a situation in which opinion can be given without any fear of being criticized by others.

Advantages :

- Interviews permit the systems analyst to get individual's views and get the specific problem work wise and operation wise.
- Interviews allow the systems analyst to obtain a better clarity of the problem due to feedback from the interviewees.
- In the process of interviews, the interviewer has time and scope to motivate the interviewee to respond freely and openly.
- Interviews allow the systems analyst to understand the user requirements and to know the problems faced by the user with the current system.
- It is an effective technique to gather information about complex existing systems.

Disadvantages :

- Interviews are very time consuming.
- Success of interviews, in most of the cases, depends on the systems analyst's interpersonal relationship skills.
- Some times, interviews may be impractical due to the location of interviewees.

Guidelines for conducting interviews :

Steps to be followed for a successful interview are given below :

1. At the time of introduction, the analyst should introduce himself by focusing on purpose of the interview and the confidential nature of interview. This is the phase wherein first impressions are formed and pave way for the success of the remaining part of the interview.

Asking questions : Questions should be asked exactly as these are worded in case of structured interview. Rewording may modify or bias the response. Always, questions have to be asked in the same sequence as prepared.

Recording the interview : Record of the interview must be kept mentioning the source of the data and its time of collection. Sometimes, the analyst cannot remember the source of the data which may attribute to the invalid sources.

Doing a final check :After the interview has been completed, the deliberations made during the interview should be put in the form of a report. The report of the interview has to be sent to the interviewee for his/her signature. If any discrepancies are found or any modifications are to be done, these can be done at this point of time.