

Unit-2.

Information Gathering : Interview Method.

* Interviewing :

It is an important method for collecting data on human and system information requirement.

→ Five steps in Interview preparation :

- ① Read Background Material
- ② Establishing interview objective - concerning (HCI) Human Computer Interaction
- ③ Decide whom to interview
- ④ Prepare the interview
- ⑤ Decide on Question type and structure.

* Question Type :

① Open-ended : (pg-105)

Advantage: → putting an interview at ease.
→ Allowing the interviewees to pick up on interviewee's vocabulary, which reflects his or her education, values

attitude and belief.

- Providing richness of detail.
- Revealing avenues of further questioning that may have gone untapped.
- Making it more interesting for interview.
- Allowing more spontaneity.

Disadvantage:

- Asking questions that may result in too much irrelevant data.
- Possibly losing control of the interview.
- Potentially seeming that the interviewer is unprepared.
- Possibly giving the impression that the interviewer is on firing with no real moral objective of interview.

* Joint Application Design :

1) Personal Interview are Time consuming and subject to bias and the data are not reliable.

2) So an alternative to interviewing user one by one, was called Joint Application design developed by IBM.

3) JAD can replace a series of interviews with a user community.

4) It is a Technique, that allows analyst to accomplish requirement analysis and design the user interface with the users in the group.

→ Who is Involved ?

- ① Executive sponsor
- ② IS Analyst
- ③ User
- ④ Session leaders
- ⑤ Observers
- ⑥ Scribe

⇒ Executive Sponsor : of senior person who will

introduce and end the JAD session.

Select an executive from user, who has some authority over IS working on the project.

⇒ IS Analyst : Atleast one IS Analyst must be present during JAD to listen what user says and what they require. In addition, you will give an expert opinion about the disproportionate cost of solution proposed during JAD Session.

⇒ User : From eight to a dozen, user can be chosen from any rank to participate in JAD session.

⇒ Session leader : He/she should be expert in SAD but rather who has an excellent communication skill to facilitate appropriate interaction.

⇒ Observer : Session should include one or two observer who are analyst or technical expert to offer technical explanation and advice to group during

session:

Scrub is One script from IS department should attend JAD session to formally write down what has been discuss.

Condition that Support JAD [111] [112]

Where to Hold JAD Meeting [112] [113]

Disadvantage JAD [114]

start -> .

~~Analysis of system using
Data Dictionary and Process
specification.~~

Using Scales in Questionnaire :

Scaling is the process of assigning numbers or other symbols to an attribute or characteristics for the purpose of measuring that attribute or characteristics.

Two different form of measurement scales that are used by system analyst are

- ① Nominal.
- ② Interval.

Nominal :

These are the weakest form of measurement. They are used to classify the things.

Eg : what type of software do you use the most?

① word processor

② spreadsheet

③ email- programming

④ Databases.

(Options).

Interval :

It possess the characteristics

that the interval between each number are equal.

Eg:

→ Fahrenheit scale & Celsius scale.

* Constructing Scale:

- Careless construction can result in following problem:
 - Leniency.
 - Central tendency
 - Hollow effect.

[119]

Q. Write a Questionnaire for Hospital Management system [10 Ques]



1. Problems faced while using traditional system? (open ended)
2. Who can use system (close ended)
3. Budget of system (scale)
4. Do you want to add feedback mechanism (Bi-polar)

5. Do you want to fix appointment at same time or via email? (Probe)

6. Do you want to take appointment via system or call? (Bi-polar)

→ funnel ▽

→ Pyramid △

open

Bipolar

close

scalar

Scalar

close

Bipolar

open

→ Diamond :

- ① Bipolar
- ② Scalar
- ③ close ended
- ④ opened ended
- ⑤ open ended
- ⑥ close ended
- ⑦ scalar
- ⑧ Bipolar

Unit - 4.

Analysing System using Data Dictionary

* Data Dictionary : It is a reference work of data about data.

It collects and manages specific data items and it confirms what each item mean to different people in organisation.

Reason for maintaining data dictionary is to keep the data clean.

* Needs :

- (1) Provide documentation
- (2) Eliminating Redundancy
- (3) validate DFD for Completeness and accuracy.
- (4) Provide starting point for development screen and reports
- (5) Determine the content of data store in files.
- (6) Develop logic for DFD processes.
- (7) Create XML.

* Data Repository :

A large collection of project information. It includes:

- ① Information about the data maintained by the system including data flow, data store, record structure, elements, entities and messages.
- ② Procedural logic and use CASE
- ③ Screen and report design.
- ④ Data relationships - such as how one data structure is linked to another.
- ⑤ Project requirement and final system deliverance.
- ⑥ Project Management information (schedule, achievement, issues, resolving, project user)

* Categories:

Data Dictionary Categories:

- ① Data flow
- ② Data structure
- ③ Data elements
- ④ Data store.

* Data Elements

1) Element ID:

2) Name of element:

Descriptive and unique.

3) Alias:

Synonyms or other name for the elements

A customer number can also called receivable account number or customer number.

4) A short description

5) Description:

6) Element is Base or derived:

A base element is that is been initially keyed into the system, eg: BOD, name, address, contact.

A derive element is one that is created by the process usually as a result of calculation or series of decision making statement.

6) Length of element:

7) Type of data: numeric, character, alphanumeric

8) Input & Output format

9) Validation criteria: Discrete, continuous

Ensure that accurate data are captured by the system. Elements are either Discrete (separate) or Con't which means that have fix value.

Continuous which means that with a smooth range of value.

Page No.	
Date	

105 Default value:
116 Comment

elements
eivable

Process specification and structure Decision.

Process specification:

Note: The method available for documenting and analysing a logic of decision:

- (1) structure English (statement)
- (2) Decision table (truth table)
- (3) Decision tree

Process specification sometimes known as minispecs (mini specification) because they are small portion of the total project specification.

This specification explain decision making logic and formulae that will transform process input data output.

Three goals for producing process specification:

- (1) To reduce ambiguity of the process.
- (2) To obtain an exact description of what is accomplished.

③ To validate system design.

→ Process specification format:

It links the process to the DFD
and data dictionary.

1) The Process Number:

Must match the process ID on the
data flow diagram.

2) The Process Name:

The same as displays within the
process symbol on the DFD.

3) Description:

What the process accomplishes

4) List of Input data flow:

Uses the names found on DFD.

5) Output Data flow:

Uses data flow diagram and
data dictionary names.

6) Type of Process:

→ Batch.

→ Manual

→ Online.

Page No.	
Date	

→ Use Pei Weitten Code:

Include the name of the sub-program.

→ Process logic Description:

statements

→ List any unresolved issue:

Process specification form

Number: 13

Name: Determine Quantity Available

Description: Determine if an item available for sale

input Data flow

Valid item from process

Quantity on hand from item record

Output Data flow

Available item

Backordered item to inventory control

Types of Process

Online Batch Manual

Subprogram

Process logic:

(statement)

refer to Name

structure

Decision

Decision

english

Table

unresolved issue:

* Structured English:

used when the process logic involves formulas or iteration, or when structured decision are not complex.

Express all logic in terms of Sequential, Decision, Case, iteration.

Eg:

- if customer has a bank account then
- if customer has no dues from previous account then
 - allow loan facility
 - else
 - if Management Approval is obtained then
 - allow loan facility
 - else
 - reject
 - End if

→ Else

→ Reject

→ End if.

* Decision Table

Condition	Rule
Action	Entries

Remove unwanted, Redundant data / column

* Decision Tree

