Requirement Gathering Techniques

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What are
Requirement
Gathering
techniques ?

Requirement Gathering Techniques collect stakeholder needs and do requirement verification.

- Interviews

- Questionnaire

- Prototyping

- Joint Application Design (JAD)

- Document Analysis

- Observation

1. Interviews

- Can be used for both requirement gathering and validation.

- Most common type of requirement gathering technique.

- Interview can be carried out one-on-one interviews or as a group.

| One-on-One Interview	Group Interview
Interview one stakeholder at a time	More than one stakeholder involve in the interview
Takes time	Takes less time
Can focus well on specific matters	Can collect richer set of information with less time

2 Types of Question You can use

during Interviews

1. Open – ended questions

2. Closed – ended questions

Open-ended **Questions**

- Allow interviewees to respond how they wish, and to what length they wish

- Appropriate when the analyst is interested in breadth and depth of reply

- The questions often require more than one-word answers.

- Allows respondent to develop their ideas without limiting responses.

- Examples:

  - What do you think about the current system?

  - What are some of the problems you face on a daily basis?

  - How do you decide what types of marketing campaign to run?
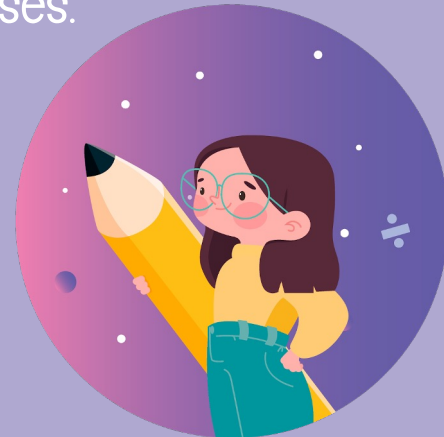
Closed Ended Questions

- Looks for specific facts and often only requires one word answer.

- Appropriate for generating precise, reliable data that is easy to analyze

- Requires interviewers to be prepared.

- Examples:

  - How many telephones?

  - How many orders are received per day?

  - Do you allow customers to place orders online?

  - What is the minimum price level for orders?

Why Open –Ended Questions?

- Puts the interviewee at ease

- Gives qualitative data

- Can collect more detail

- Enables to of further question on interviewee response

- Provides more interest for the interviewee

- Useful if the interviewer is unprepared

Why Closed–Ended Questions?

- Saves interview time.

- Easier and quicker for interviewee to answer.

- The answers of different respondents can be easily compared.

- Questions are to the point and gives relevant data

- Enables to control the interview

Structured Interview

- Also known as "Formal" interview

- Questions are asked in a set of standardized order.

- Interviewer will not deviate from the interview schedule.

- Interviewer will not ask any other questions not in the schedule

- Not flexible

- Easy to replicate

- Less time consuming

- Collects lack of details

- Interviewer need not be a trained person

- Easier to evaluate the results

- Answers obtained are uniform.

Unstructured Interview

- Also known as "Informal" interview

- Interviewees are free to answer and present their views

- Can ask spontaneous questions based on answers

- Interviewer may loose the control over the interview

- Flexible

- More opinions can be collected

- Difficult to analyze the answers

- Interviewer should be a skilled person

2. Questionnaires

- An electronic or paper-based method of collecting requirements.

- Lists questions directed at identifying stakeholder needs or requirements

Advantages:

1. Can reach large number of stakeholders
2. Can gather large amount of data in a short period of time
3. Can be used after an interview to validate assumptions
4. Provides statistical preference data

Disadvantages

1. The response rate is low
2. Responses are usually limited to the assumptions of the question designer
3. Preparation time is more
4. Responses are subjective

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Good Questionnaire

- Begin with non-threatening and interesting questions

- Group items into logically coherent sections

- Do not put important items at the very end of the questionnaire

- Do not crowd a page with too many items

- Avoid abbreviations

- Do not put confusing questions

- Provide anonymity to respondents

3. Prototyping

- Modern way of requirement gathering

- Gather the preliminary requirements and build an initial version of the system (the prototype).

- Show the prototype to client and refine the prototype based on their feedback

- Can be used for both requirement gathering and verification

4. Joint Application Design (JAD)

- Joint Application Design (JAD) can replace a series of interviews with the user community.

- JAD is a technique that allows the analyst to accomplish requirements analysis and design the user interface with the users in a group setting.

- Goal is to produce complete requirements definition document.

JAD Meeting Room
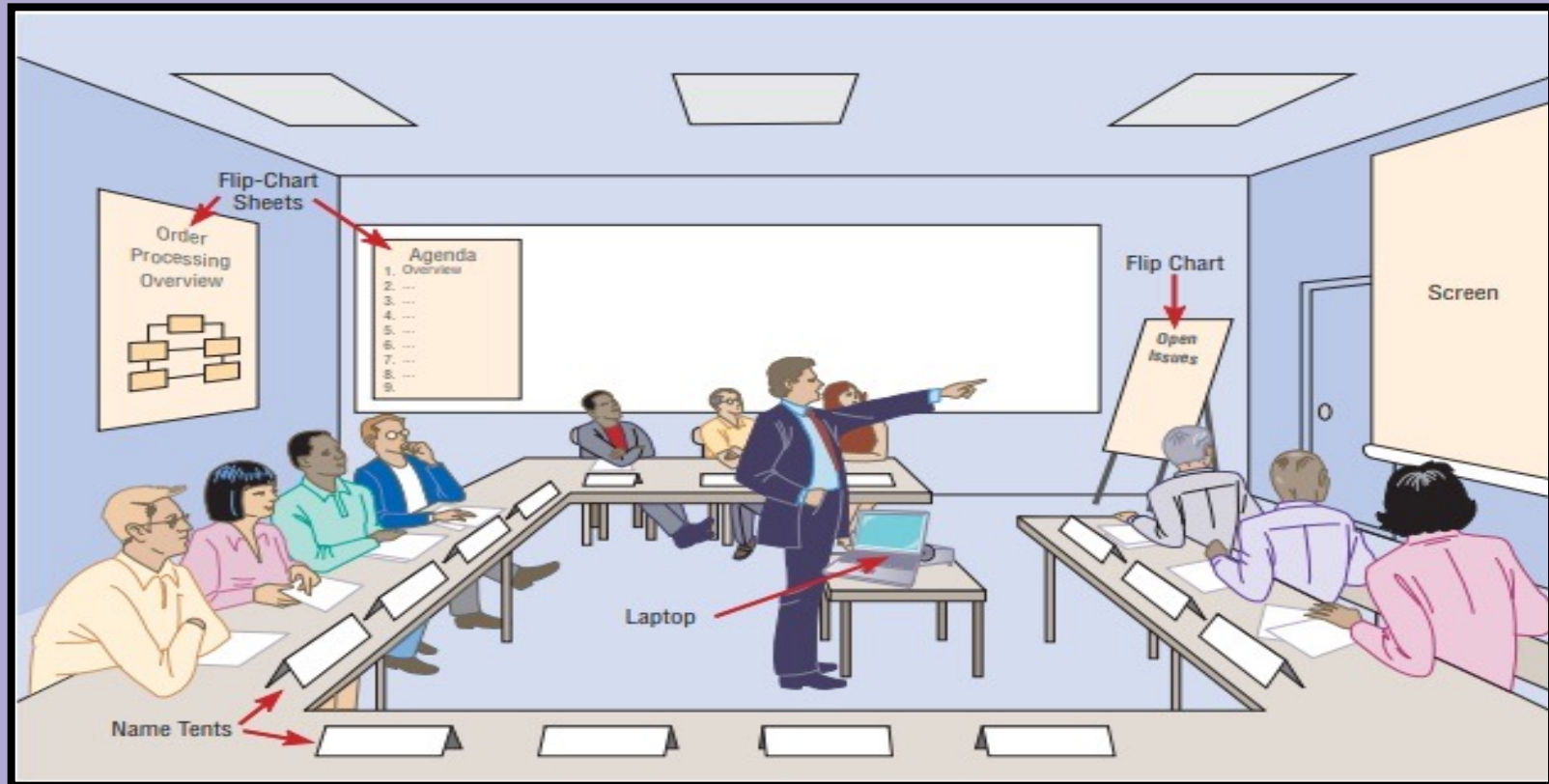
5. Document Analysis

- Provides clues about existing "as-is" system

- Typical documents

- Forms

- Reports

- Policy manuals

- Look for user additions to forms

- Look for unused form elements

6. Observation

- Users/managers often do not remember everything they do.

- Checks validity of information gathered from other ways.

- Behaviors change when people are watched.

- Do not ignore periodic activities.

Selecting the Appropriate Techniques

Criteria / Techniques	Interviews	JAD	Questionnaire	Document Analysis	Observation	Prototyping
Type of Information	As-Is Improvement To-Be	As-Is Improvement To-Be	As-Is Improvement	As-Is	As-Is	As-Is Improvement To-Be
Depth of Information	High	High	Medium	Low	Low	High
Breadth of Information	Low	Medium	High	High	Low	High
Integration of Info.	Low	High	Low	Low	Low	High
User Involvement	Medium	High	Low	Low	Low	High
Cost	Medium	Low – Medium	Low	Low	Low-Medium	High

THANK
You!