

Project Business Analysis

PMG 461

Lecture 2

Elicitation Tools and Techniques for Capturing Requirements

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What we will cover

1. Define Elicitation and When it happens
2. Review most used Qualitative and Quantitative Elicitation Techniques
3. How to select the most suitable tools and techniques for eliciting requirements for a project

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What is Elicitation and when does it happen?



Elicitation استنباط

Meaning of **elicitation** in English



elicitation

noun [U]

UK /iˌlɪs.ɪˈteɪ.ʃən/ US /iˌlɪs.əˈteɪ.ʃən/

Add to word list

the process of getting or producing something, especially information or a reaction:

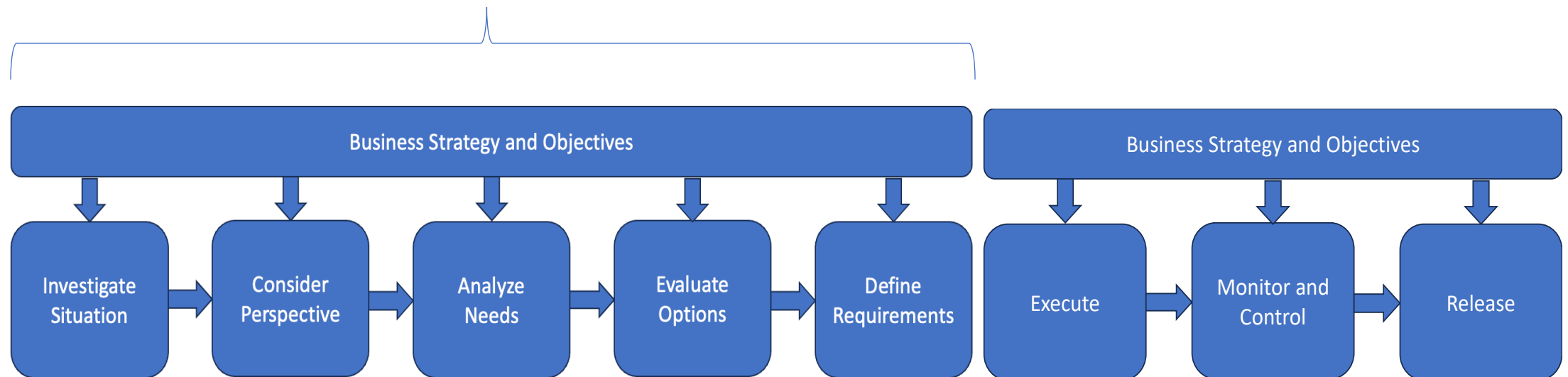
“Elicitation is the process of getting information from stakeholders and other sources.”

- Collecting or gathering requirements means that they are prepared and ready to be collected which is not always the case.
- Stakeholders might only have needs, wants, or ideas that they may not be able to express these clearly.

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Processes for Eliciting Requirements

Elicitation



Pre-Elicitation Research

- Get acquainted with the client organization through reviewing available documents as:

Company Website

Company Reports

Strategy and Objectives

Organization Chart

Procedure Manuals

Types of Elicitation Techniques:

Qualitative



Focus on gathering non-numerical data to understand the motivations, opinions, and experiences of individuals or groups.

- In-Depth Information
- Subjective
- Small Sample Size

Quantitative



Involve the collection and analysis of numerical data for statistical patterns and trends.

- Numerical Data
- Objective
- Large Sample size

Qualitative vs. Quantitative Techniques

Qualitative



- Interviews
- Focus Groups
- Workshops
- Observations
- Prototypes

Quantitative



- Document Analysis
- Questionnaires
- Surveys
- Numerical Data and Reports

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Qualitative Elicitation Techniques

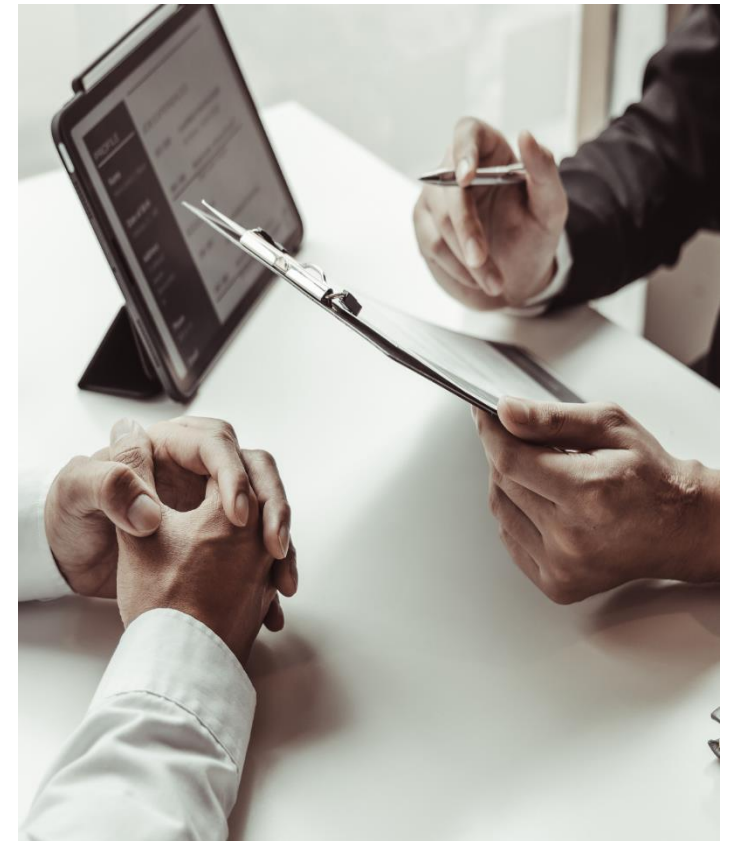


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Interviews

- Interviews are a crucial tool in the business analyst's toolkit.
- one-on-one meetings that can be structured, semi-structured, or not structured
- Key in achieving multiple objectives:
 - Establish initial contact with key stakeholders.
 - Build rapport with business users and managers.
 - Acquire information about the business situation, including personal concerns and problems.



Interviews Advantages/Disadvantages (1 / 2)

Advantages

- Building Relationships with Stakeholders
 - Establishing trust and rapport with business stakeholders.
 - Ensuring confidence in analysts and acknowledgment of user concerns.
- Yielding Important Information
 - Focused information on current operations and identification of requirements for new business systems.
 - Understanding different viewpoints, attitudes, and political factors.

Interviews Advantages/Disadvantages (2 / 2)

Disadvantages

- Time and Cost Implications
 - Interviews can be time-consuming and expensive, especially for dispersed stakeholders.
 - Need for efficient use of interviewee's time to avoid resentment.
- Subjectivity and Coordination
 - Information may be subjective and require confirmation through quantitative data.
 - Coordinating differing views may lead to follow-up discussions and additional investigative work

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Preparing for the Interview

Who and Why:

- Identify stakeholders, considering seniority, and order of interviews.
- Tailor questioning based on the level of authority.
- Consider the interviewee's role in the organization.

Objectives of the Interview (What):

- Define which information you need to elicit from each stakeholder
- Range from detailed elicitation of business needs to building rapport.
- Tailor questioning and note-taking based on the objectives.

When and Where:

- Consider venue, timing, and duration for optimal results.
- Limit interviews to one hour for effectiveness and concentration.

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Interviews Structure

Opening

- Introduce purpose and context of the project.
- Ensure interviewee understands the agenda.
- Set the stage for a comfortable and informative discussion.

Body

- Obtain context before delving into specific areas.
- Structure the interview for a detailed examination of each area.
- Take comprehensive notes using diagrams or mind maps.

Closing

- Summarize key points and agreed-upon actions.
- Explain the next steps in the project.
- Confirm further contact details for follow-up.

Following-Up

- Write up interview notes promptly and submit them to the interviewee for confirmation.
- Incorporate approved notes into formal project documentation.
- Reflect and seek feedback on interviews for ongoing enhancement.

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Observation

- Observing the users in action is a valuable technique for gathering insights into the environment and work practices to understand problems and difficulties and design workable solutions fitted to the working environment.
- The objective is to understand tasks, not to judge individual performance or competence, so make sure before starting that people being observed understand that the goal is understanding, not evaluation.



Types of Observation (1 / 2)

- **Formal Observation**

Watching tasks being performed.

Questions can be asked while people work without distraction and without being critical.

- **Protocol Analysis**

Involves asking business staff members to perform a task and to describe each step as they perform it.

Good for eliciting skills that cannot be expressed in words alone.

Types of Observation (2 / 2)

- **Shadowing**

Involves following a business user for a period such as one or two days in order to find out what a particular job entails.

Helps Build Rapport with the user and capturing additional details.

- **Ethnographic Studies**

Involves spending an extended period of time, possibly several months, in the target environment so the users become used to the observer's presence and behave naturally.

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Workshops

- An excellent collaborative forum in which issues can be discussed, conflicts resolved and requirements elicited.
- May be used at many different points during the project.
- Valuable when time and budgets are tightly constrained and several viewpoints need to be addressed.



Workshops Advantages/Disadvantages (1 / 2)

Advantages

- **Gain a broad view of the issues:** having a group of stakeholders in one room will allow to gain a more complete understanding of the issues and problems.
- **Increase Speed and Productivity:** it is much quicker to have one meeting with a group of people than to interview them one by one
- **Obtain Buy-in and acceptance for the project:** when stakeholders are involved, they be more open to changes that result and are more likely to champion the change
- **Gain a consensus view or group agreement.**

Disadvantages

- **Workshops can be time-consuming to organize:** as it is not always easy to get all the necessary people together at the same time.
- **If the workshop is not carefully facilitated, it may happen that a forceful participant can dominate or disrupt the discussion.**
- **Difficult to ensure that the participants have the required level of authority –** which sometimes means that decisions are reversed after the workshop has ended.

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Preparing for the Workshop

Define
objectives of
the workshop

Identify who
should attend
the workshop

Research and
Analyze the
interests of
each
participant

Identify the
structure of
the workshop
and the
techniques to
be used

Select and
prepare a
suitable venue

Facilitating the Workshop

Discovery Techniques

- **Round Robin:** Participants are asked in turn for their ideas and opinions and evaluation is done after all ideas are gathered
- **Brainstorming:** Participants call out ideas that are written on a flipchart and evaluation is done after all ideas are gathered
- **Brain-writing/Post-it exercises:** Participants write down ideas that are then collated and grouped;
- **Stepwise Refinement:** we take a statement or idea and keep asking 'Why?' until we have got to the heart of a problem, idea or situation.



Documentation Techniques

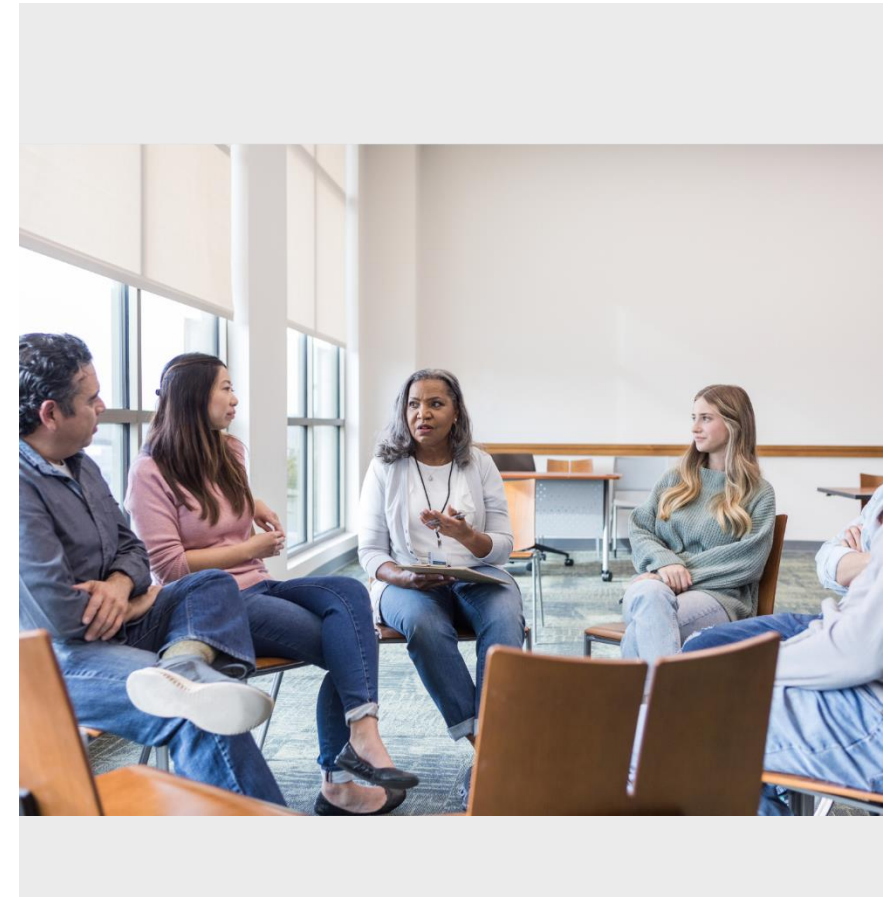
- **Process models**
- **Mind maps**
- **Rich pictures**
- **Context diagrams**
- **Use case diagrams**
- **Task scenarios**

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Focus Groups

- Focus Groups bring together a group of people with a common interest to discuss a topic
- Could be used to understand people's attitudes to any current shortcomings with the business system
- Participants (Internal or External) should represent a sample of the target stakeholders



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Focus Groups

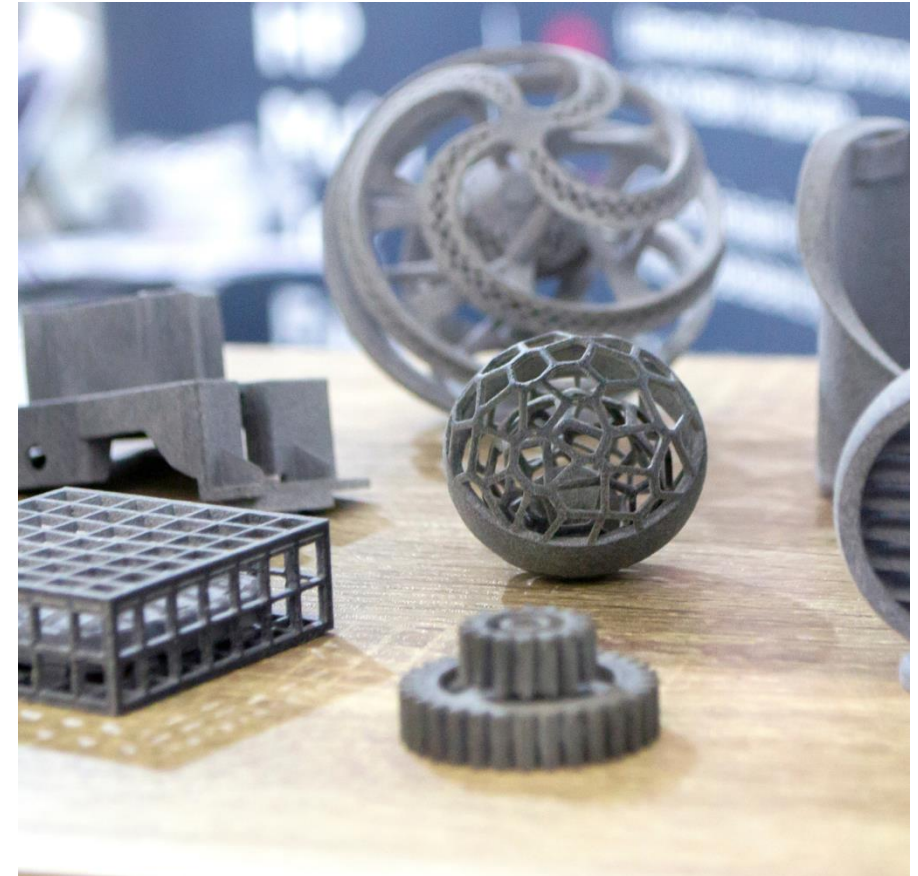
- Participants are given an opportunity to express their opinions and views and to discuss them.
- Unlike a workshop, there is no requirement to form a consensus during the discussion, or for the group to acquire a sense of ownership of any decisions made or solutions identified.
- Findings need to be evaluated and assessed against the strategy and objectives of the project

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Prototyping

- An important technique for eliciting, analyzing, demonstrating and validating requirements.
- Involves building simulations of a system to review with users to increase understanding about the system requirements
- Prototypes offer a way of showing the stakeholders how the new processes or system might work, and provide a basis for evaluation and discussion.
- Used when users are unclear about their requirements



Advantages

- Clarify any uncertainty on the part of the analysts and confirm to the stakeholders that we have understood what they asked for.
- Help stakeholders identify new requirements as they gain an understanding of what the system will be able to do.
- Demonstrate the look and feel of the proposed system and elicit usability requirements.
- Validate the system requirements and identify any errors.

Disadvantages

- Prototyping cycle can spin out of control, with endless iterations taking place.
- If the purpose of the exercise has not been explained clearly, business users may think that when they are happy with the mock-up the system is now complete and ready for use.
- User expectations can be raised unnecessarily by a prototype that fails to mimic the final appearance of the system or its performance.

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Quantitative Elicitation Techniques



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Questionnaires and Surveys

- Useful if we need to get a limited amount of information from a lot of people and interviewing them all would not be practical or cost-effective.
- Questionnaires are difficult to use successfully and have to be designed carefully.
- Exact design of a questionnaire depends upon its purpose



Contents of Questionnaires and Surveys

Header Section

- Purpose of the questionnaire is explained, and where instructions for returning it are given.

Classification Section

- Details about the respondent that allow the information to be categorized by analysis criteria, such as age, gender or length of service,

Data Section

- Main body of questions. Questions must be clear and have straightforward answers such as 'yes/no', 'agree/neutral/disagree' or 'excellent/satisfactory/inadequate'

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Document Analysis

- Involves reviewing samples of documents to uncover information about an organization, process or system.
- Document analysis is useful to supplement other techniques such as interviewing, workshops and observation.
- Documents help to provide a clearer picture of how the organization/ area/ process works



Sample Areas of Document Analysis

- How is the document completed?
- Who completes the document?
- Are there any validations or controls on the document?
- Who uses the document?
- When is the document used?

Sample Areas of Document Analysis

- How many are used or produced?
- How long is the document retained by the organization, and in what form?
- What are the details of the information shown on the document?
- Where is the information or data obtained?

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Example of Documents

Company Reports

Organization
Chart

Policies and
Procedures

Manuals

System Reports

Statistical Data

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Selecting the Right Mix of Elicitation Techniques



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Other Elicitation Tools and Techniques

Scenarios

Benchmarking

Market Research

Special-Purpose
records

Activity Sampling

Typically, within a project, we will use more than one elicitation technique.

A good practice is to ensure having both qualitative and quantitative techniques.

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Factors to Consider to Select the Right Mix of Elicitation Techniques

Time Allowed

Budget

of Stakeholders

Geographical
Location of
Stakeholders

Complexity of
Project and
Requirements

Organizational
Culture

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Key Points

Elicitation is more than just gathering or collecting data

Elicitation Techniques are classified as Qualitative and Quantitative

In any project, we usually use a mix of techniques to elicit the required information

Selecting the right mix of elicitation techniques depends on a several factors as time, budget, # of stakeholders, location, and complexity

For Discussion Panel and Next Lecture:

- Reading, Chapter 5. from textbook “Business Analysis” by James Cadle, Malcolm Eva, Keith Hindle, Debra Paul, 2nd edition
- Watch the video:
[“How to select the right Requirements Elicitation Technique for your project?”](#)

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For Discussion Panel and Next Lecture



Thank You