

Requirements Elicitation Techniques Support Material

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Brainstorming

Preparation:

- Develop clear definition of the area of interest
- Fix a time limit for the group
- Designate facilitator and size group (6–8 ideal)
- Establish criteria for evaluation and rating ideas.

Conduct Brainstorming session

- Share ideas with no discussion or criticism
- Record all the ideas
- Encourage people to be creative

Wrap-up the brainstorming

- Discuss and evaluate the ideas
- Create a condensed list of ideas, combine, eliminate duplicates
- Rate the ideas (example voting)
- Distribute the final list of ideas to appropriate parties

Document analysis

Prepare for document analysis

- Evaluate which existing system and business documentation are relevant and appropriate to be studied.

Analyze the documents

- Study the material and identify relevant business details.
- Document business details as well as questions for follow-up with subject matters experts.

Post document Analysis wrap-up

- Review and confirm the Selected details with subject matter experts.
- Obtain answers to follow-up questions.

Focus Groups

Prepare for focus groups

- Recruits participants (6–12 participants)
 - Homogeneous: Individuals with similar characteristics
 - Heterogeneous: individuals with different backgrounds
- Assign moderator and recorder
- Create discussion guide (goals/objectives, open questions)
- Reserve site and services

Run focus group

- Moderator guides the group session
- Follow a preplanned script or specific issues
- 1–2 hours session
- Recorder captures the group comments

Produce report

- Moderator analyzes and documents agreements and synthesizes them into themes

Interface Analysis

Prepare for interface analysis

- Identify the necessary interfaces.
- Draw a context diagram

Conduct interface analysis

- Determine its type:
 - user interface
 - System to system interface
 - External hardware device interface
- Elicit specific details about interface

Interview

Prepare for interview

- Define the interview focus or goals
- Identify potential interviewees (stakeholders generally)
- Design the interview . May need a custom design interview for each interviewee.
 - Close-ended questions (response: yes/ no , metrics)
 - Open-ended questions
- Organize the questions (logical order, priority.....)
- Location of participants (in-person, telephone, video call, chat)
- Chose interview time and site convenient to interviewee.
- Determine if a person to record the discussion is needed or use voice recorder, video recorder.
- Contact potential interviewees. Initial contact to explain the objective of the interview.

Interview

Conduct of the interview

- Opening the interview
 - Give an introduction, state the Purpose of the interview, address any concerns raised by the interviewee.
 - Explain that notes will be taken and shared at the end.
- During the interview
 - Maintain focus on established goals and pre-defined questions
 - Address and record all raised concerns of the interviewee
 - Active listening
- Closing the interview, summarize the session and explain upcoming process

Post interview follow-up and review

- After interview is complete business analyst organizes the information elicited to the interviewee for review.

Active or passive observation

Passive observation:

- Observe the subject matter through the business routine but does not ask any question.
- Write notes about what you see.
- Wait until the end of the process to ask questions.
- Observe multiple times to understand how the process works

Active observation:

- Observe the current process , take note and dialogue with worker.
- When you have questions ask right away even if it brakes the routine of the worker.
- You may participate in the work to gain immediate appreciation of the current process.

Prototyping

Prepare for prototyping

- Determine the prototyping approach:
 - Throw-away vs evolutionary
 - Vertical vs horizontal
- Identify the functionality to be modeled

Prototype

- Build the prototype

Evaluate the prototype

- Verify with the user if the prototype represents the user's needs

Requirements Workshop

Prepare for the Requirements Workshop

- Clarify the stakeholders needs and Purpose of the workshop
- Identify critical stakeholders who should be present
- Define the Workshop´s agenda
- Determinate how the output will be documented
- Schedule the session(s)
- Arrange room logistics and equipment
- Send materials in advance to prepare the attendees
- Conduct pre-workshop interviews with attendees.

Run the Requirements Workshop

- Elicit, analyze and document requirements
- Obtain consensus on conflicting views
- Maintain focus by validating the session´s activities

Requirements Workshop

The facilitator has the responsibility for:

- Establish professional and objective tone for the meeting
- Enforce discipline, structure and ground rules for the meeting
- Introduce the goals and agenda for the meeting
- Manage the meeting and keep the team on Track
- Facilitate on the process of Decision and Build consensus
- Ensure that all stakeholders participate
- Ask the right questions

Post requirements Workshop wrap-up (Facilitator)

- Follow up any open action items that were recorded at the workshop
- Complete documentation and distribute it to the workshop attendees.

Reverse Engineering

Two categories of reverse engineering:

- Black box: The system is studied without examining its internal structure.
- White box: The inner workings of the system is studied

Prepare for reverse engineering.

- Determine the scope or functionality that needs to be reverse-engineered
- Evaluate the cost-benefit because can be time consuming and expensive and new system can be more efficient, more easy for maintenance and cheaper than extends existing system.

Perform reverse engineering

- Disassemble or decompile original system
- Document the results in a manner that can be reviewed and verified by a subject matter expert. This can serve as baseline details to elicit requirements for extending the system

Survey / Questionar

Prepare

- Define the purpose of the survey and target group
- Chose the survey type (open-ended, close-ended)
- Select the sample group (size, type)
- Select the distribution and collection methods (telephone, e-mail, web-based, face to face)
- Project the desired levels of response
- Determinate if a Survey may be supported with individual interviews.
- Write the Survey questions.
- Communicate the Purpose and objectives of the Survey
- Understand the background of the group
- Keep the Survey short (10 questions)
- Make the Survey fast and easy to complete (less than 10 min)

Survey / Questionar

Prepare

- Make sure the question wording is clear and concise
- Avoid double questions in a single question
- Avoid questions involving negatives
- Avoid complex branching structures.
- Avoid questions that make people feel uncomfortable
- Do not try to elicit information that is restricted by regulations (unless is necessary for you business Purpose)
- Test the Survey

Distribute the Survey

Communicate Survey results

- Collate the responses
- Analyze and summarize the results
- Report findings to the sponsor

Card sorting

Prepare

- Define the objective of the task.
- Organize your group or individuals.
- Each person writes down on a card the idea
- Write only one idea per card
- Anyone on the group has to participate

Sorting the cards

- A person receives all the sets of the cards
- This person groups in whatever way they think is logical and gives a name to the category writing a name on a blank card
- Repeat this process across of the group members

Produce results

- Analyze the results to discover patterns

Elicitation questions list

BUSINESS	USER	FUNCTIONAL	NON-FUNCTIONAL
A What business opportunity or problem led to this initiative?	A Who will use the system under development?	A What does the system have to do to support each end-user?	A How well is the system guarded against unauthorized access? (Access Security)
B What is the business vision?	B Who performs tasks or activities in the business process?	B When the user does "x" the system does what?	B How dependable is the system during normal operations? (Availability)
C What are the key business issues you face today?	C What department or business are impacted by this system function?	C What data must be received (input processing)?	C What are the system's capabilities regarding capacity, throughput, and response time?(Efficiency)
D What is the purpose of the business area?	D What business areas are affected by changes to the system?	D What data must be produced (output processing)?	D How accurate and authentic are the data captured by the system? (Integrity)
E Describe "what" is done currently.	E Who benefits the most from this project?	E What data must be retrieved, stored and transferred?	E How immune is the system from failure? (Reliability)
F What is the project team expected to implement or deliver?	F Who does this system interface with?	F What calculations must be performed?	F How resilient is the system from failure? (Survivability)
G What are the project's goals for the project?	G What is the source of information that is input to the system?	G What data must be edited?	G How easy is it to learn and operate the system? (Usability)
H What are the objectives needed to reach the goals?	H Who is the recipient of information from this system?	H What data need to be validated?	H How easy is it to modify the system to work in different environments? (Flexibility)
I What could prevent you from meeting your business objectives?	I What external organizations interact with the system?	I What errors will the system be expected to handle?	I How easy is it to upkeep and repair the system? (Maintainability)
J What are the benefits from doing the project?	J What government agencies require information from the system?	J What business exceptions must the system handle?	J How easy is it to expand or upgrade the system's capabilities? (Scalability)
K What are the critical success factors?	K What regulatory agencies require information?	K What business rules need to be enforced by the system?	K How easy is it to show that the system performs its functions? (Verifiability)
L What are the specific measurable business benefits for doing the project?	L Who needs to access the system?	L What audits must the system conduct?	L How easy is it to interface with another system? (Interoperability)
M What are the success metrics?	M What role(s) might be alleviated if this process is automated?	M What counters, tallies, timers, triggers, and schedules does the system have to maintain?	M How easy is it to transport the system? (Portability)
N What business processes support the business purpose?	N What work does the system help the business unit to perform?	N What tasks and activities does the system automate?	N How easy is it to convert the hardware and software for use in other business functions? (Reusability)
O Who will benefit from this product or system?	O What user roles interact with the system?	O What inputs will the system process?	
P Who may be opposed to this product or system?	P What are the goals of each user role?	P What outputs will the system prepare?	
Q Who are the experts in this business process?		Q What features are expected by the users?	
R What internal and external entities are affected by the scope of this initiative?		R What functions does the system help the user to perform?	