

Data Gathering			
	What is it ?	Advantages and Disadvantages ?	Other COnsideration
Survey	format — A set of well-defined and well-written questions.	Advantages <ul style="list-style-type: none"> high efficiency — Able to collect large number of responses quickly from population of users that is geographically dispersed. easy use — Does not require special equipment (for paper versions). save money — low cost non-intrusive can estimates of a population (well-designed) 	scope <ul style="list-style-type: none"> Appropriate for measuring attitudes, awareness, intent, feedback about user experiences, characteristics of users and over-time comparisons. needs overview or "snapshot" of a user population. not for for precise measurements or identifying usability problems in an interface
	participant <ul style="list-style-type: none"> individual without the researcher present 		target respondents <ul style="list-style-type: none"> purpose of the research <ul style="list-style-type: none"> target population recruitment <ul style="list-style-type: none"> size contact method <ul style="list-style-type: none"> a directory membership list social networking group sampling — two major types <ul style="list-style-type: none"> probabilistic <ul style="list-style-type: none"> known probability of someone being chosen <ul style="list-style-type: none"> census — a survey response from every member of the population. random sampling — not all people are chosen to participate but it is known what the likelihood is of being chosen to participate stratified sampling — appropriate number of responses from each subset of your user population non-probabilistic <ul style="list-style-type: none"> unknown likelihood of being chosen used in situations <ul style="list-style-type: none"> Do not use a strict random sample Do not know the likelihood of an individual being selected Not interested in population estimate Not clearly defined population of interest approaches <ul style="list-style-type: none"> Snowball recruitment Self-selected surveys Volunteer
	range — large populations		practice considerations <ul style="list-style-type: none"> questionnaire design <ul style="list-style-type: none"> types <ul style="list-style-type: none"> open-ended responses <ul style="list-style-type: none"> better understanding of phenomena must be carefully, avoid responses useless closed-ended responses <ul style="list-style-type: none"> ordered <ul style="list-style-type: none"> number of choices can be given, which have some logical order. single choice selection e.g. ranking, likert scale unordered <ul style="list-style-type: none"> Number of choices can be given but no order in responses either single or multiple-choice selections e.g. Preference applications ; Demographic information structure <ul style="list-style-type: none"> begin : instructions each sections has headings, group similar topic together plan respondent take "contingent" questions clearly label mode of administration <ul style="list-style-type: none"> distributing methods <ul style="list-style-type: none"> paper electronic combination choose based on user's interest <ul style="list-style-type: none"> paper — Physical visit or postal address electronic — E-mail address or forums web-based tools <ul style="list-style-type: none"> Google form Microsoft form deploying online questionnaires <ul style="list-style-type: none"> Plan the timeline Design offline Program/complete online template Test the survey to make sure that it behaves as you would expect Test it with a group that will not be part of the survey to check that the questions are clear that the questions are clear Recruit participants
	dissemination method <ul style="list-style-type: none"> paper email the web 		provide <ul style="list-style-type: none"> based on electronic or paper provide links or not contact info a reasonable length adaptation to different modes
	vs Questionnaire <ul style="list-style-type: none"> survey — complete methodological approach questionnaire — actual list of questions <div>Both terms often used interchangeably</div>		
Interviews	format — Guided conversation which one person seeks information from another.	Advantages <ul style="list-style-type: none"> depth — can collect "deep" data can be open-ended can be exploratory 	types <ul style="list-style-type: none"> unstructured — The interviewer will ask questions that he or she has not prepared for beforehand semi-structured — In which the interviewer asks only a few pre-determined questions, while the rest of the questions are not planned in advance. fully structured — Questions are planned and created in advance. All candidates are asked the same questions in the same order. other <ul style="list-style-type: none"> digital conferencing system — e.g. zoom advantage <ul style="list-style-type: none"> no need to travel in their own environment can be anonymous
	participant <ul style="list-style-type: none"> interviewee interviewer 		how to choose <ul style="list-style-type: none"> View the interview requirements and define candidate roles Candidate personas are formed by defining the traits, skills and characteristics that make up your perfect hire Structured interviews may work best if your candidate role has very clear characteristics. If your candidate role contains a wide range of characteristics, then an unstructured interview may give you the best sense of the candidate and how they will fit into your organization unsure : a semi-structured interview will provide you with the best of both worlds.
	range <ul style="list-style-type: none"> any phase of a project not suitable for large sample of population 		how to plan <ul style="list-style-type: none"> identity objectives select type decide method write questions <ul style="list-style-type: none"> many questions — breaking into multiple sessions moderate time — not more than two hours word express — clear, understandable and impartial keep it short — difficult to remember long avoid double - barreled questions test questions determine players prepare materials
Focus groups	format — interview people in groups	Advantages <ul style="list-style-type: none"> Inclusiveness — allows diverse or sensitive issues to be raised seek consensus — good at gaining a consensus view participatory — increase interactivity between participants 	how to run <ul style="list-style-type: none"> introduction — Introduce yourself, explain the goals, reassure about the ethical issues, ask to record, present the informed consent form, and capture demographic information warm - up — Make first question easy and non-threatening. main body — Present questions in a logical order, ask most important questions a cool-off period — Include a few easy questions to defuse tension at the end closure — Thank interviewee, signal the end, for example: switch recorder off
	participant <ul style="list-style-type: none"> representative sample of the target population trained facilitator 		
Observations	range <ul style="list-style-type: none"> 3 - 10 people Appropriate for investigating shared issues rather than individual experiences 	Disadvantages <ul style="list-style-type: none"> limitations — inappropriate for controversial topics high requirements — depends highly on people in the group low return on investment — high effort to conduct 	
	format <ul style="list-style-type: none"> direct — observed directly by the investigator indirect — through records of the activity that are studied afterward 	Advantages <ul style="list-style-type: none"> can both direct and indirect easy to administer avoid respondents unwilling to a report 	types <ul style="list-style-type: none"> direct <ul style="list-style-type: none"> Observed directly by the investigator as they perform their activities methods <ul style="list-style-type: none"> silent observation — Designer watches user while user is working. No communication during observation think aloud — Direct user to say thought process constructive interaction — Two people work on the task together and conversation is observed framework <ul style="list-style-type: none"> Other COIs... more <ul style="list-style-type: none"> three easy to remember <ul style="list-style-type: none"> who where what space actors activities object acts ... indirect <ul style="list-style-type: none"> Through records of the activity that are studied afterward interaction logging <ul style="list-style-type: none"> Software record user's activity in a log for examination later disadvantages <ul style="list-style-type: none"> time waits unobtrusive methods <ul style="list-style-type: none"> Good at studying usage patterns and when the activity is private diaries <ul style="list-style-type: none"> Users log information at regular intervals or when event happens types <ul style="list-style-type: none"> feedback — Data collected provides feedback for researchers elicitation — Data collected used to collect further information on the event at a later point
	participant — Observer and Observed		
Contextual inquiry	format — combination of interview and observation	Advantages <ul style="list-style-type: none"> detailed information gathering user centered accuracy real insights 	Four main principles <ul style="list-style-type: none"> Context: Going to the user, wherever they are, and seeing what they do as they do it Partnership: User and interviewer explore user's life together Interpretation: Observations interpreted by user and interviewer together Focus: Guide interview setup and focus of inquiry.
	participant <ul style="list-style-type: none"> participant researcher 		
Ethnography	format — combination of interview and observation. Ethnographers immerse themselves in the culture that they study	Advantages <ul style="list-style-type: none"> easily evolve easily discover new things 	requirements <ul style="list-style-type: none"> A researcher's degree of participation can vary (full participation or full observer) and affect study Requires cooperation of and acceptance from people being observed Requires skills to conduct (simultaneous collection and analysis of data) and skills on the job (full or partial participation)
	participant <ul style="list-style-type: none"> interviews observations researchers 	Disadvantages <ul style="list-style-type: none"> low return on investment — high effort to conduct depends on people's openness and honesty 	
Studying documentation	format — procedures and rules are often written down in manuals	Advantages <ul style="list-style-type: none"> easily accessible easily getting background information easy to manage 	
	participant <ul style="list-style-type: none"> writer reader 	Disadvantages <ul style="list-style-type: none"> cannot be used in isolation no stakeholder time problem with evaluation. 	