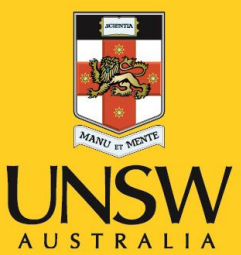


User centered design Process: From Idea to Scenarios

Never Stand Still

Human Computer Interaction

COMP3511/9511 – T2, 2025

Dr. Ali Darejeh

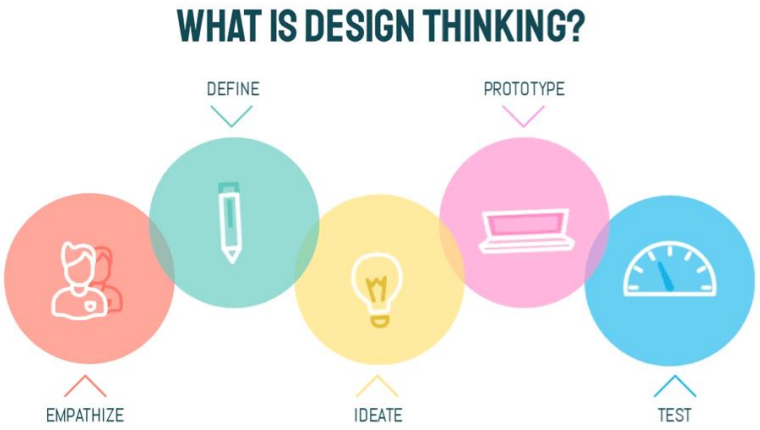
Adapted from slides by A/Prof. N. Marcus & Dr. A. Vassar

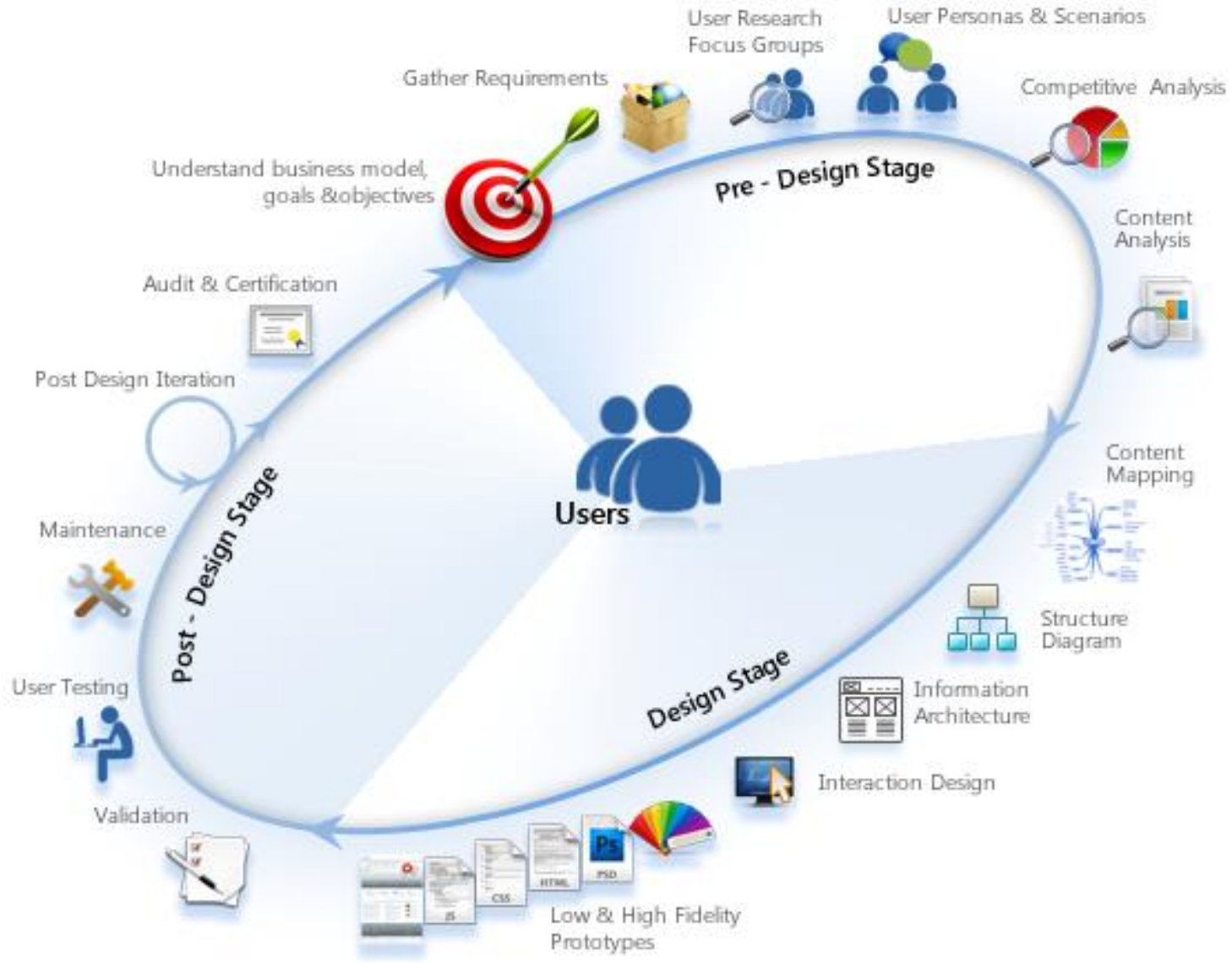
Readings

- Preece (2019), 5th ed., Interaction Design: Beyond Human-Computer Interaction, Chapter 8 (page 268)
- Preece (2019), 5th ed., Interaction Design: Beyond Human-Computer Interaction, (page 296-297)
- Personas: Unger & Chandler (2012) (via library for comp3511)
- Scenarios: Cooper et al, 2007, About Face 3.0, Ch 6 (via library for comp3511)
- Interaction Design (ID), 2019, Ch 11.5.2

Target in course is the Prototype

- Our objective is to come up with a set of prototypes that represent the screens that will be presented to the user.
- There are several steps before we reach this stage.




User Research
Focus Groups
User Personas & Scenarios
Gather Requirements
Competitive Analysis
Understand business model,
goals &objectives
Pre - Design Stage
Content
Analysis
Audit & Certification
Post Design Iteration
Users
Content
Mapping
Maintenance
Post - Design Stage
Structure
Diagram
Design Stage
User Testing
Information
Architecture
Interaction Design
Validation
Low & High Fidelity
Prototypes

User Centred Design process

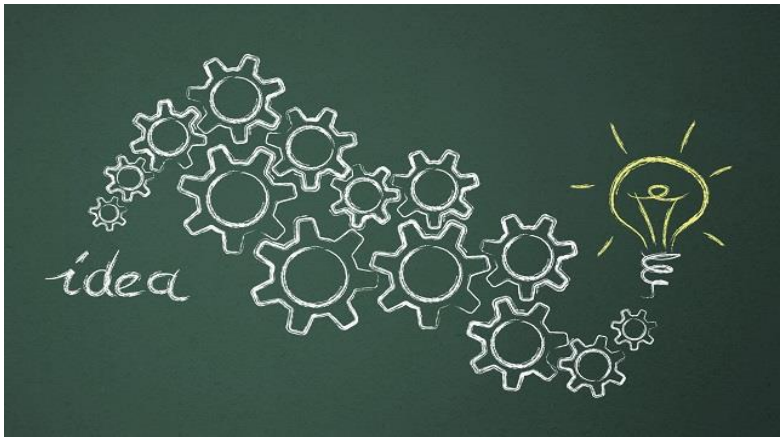
- Creative thinking
- Product Description Statement
- People involved (stakeholders)
- Data gathering to discover information about users
  - Questionnaires
  - Interviews
- Analysis
- Personas
- Scenarios
- Functional and non-functional requirements
- Data gathering to validate the requirements
- Low fidelity prototyping
- High fidelity prototyping
- Planning and running usability tests
- Compile Issues Table
- Review the design
- Iterate the process

Use these techniques in Assignment 2

Ideas

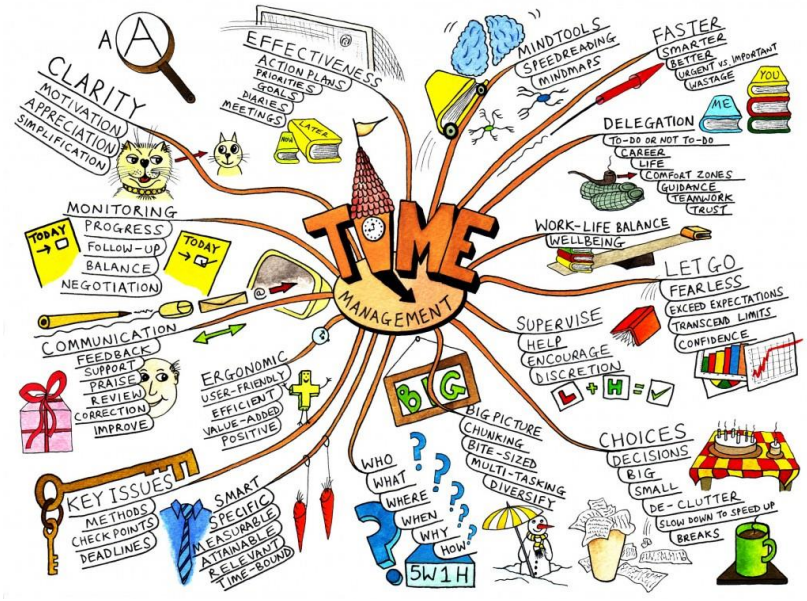
“The best way to get a good idea is to get lots of ideas”

- Brainstorming is valuable at the beginning of a project to identify and seek out the "problem space" and the possibilities
- At the beginning of a design process there are many possible paths
- As the project evolves, the team moves from the creative side to the **business** of building a specific product/service
- Various creative techniques will be employed throughout the design process

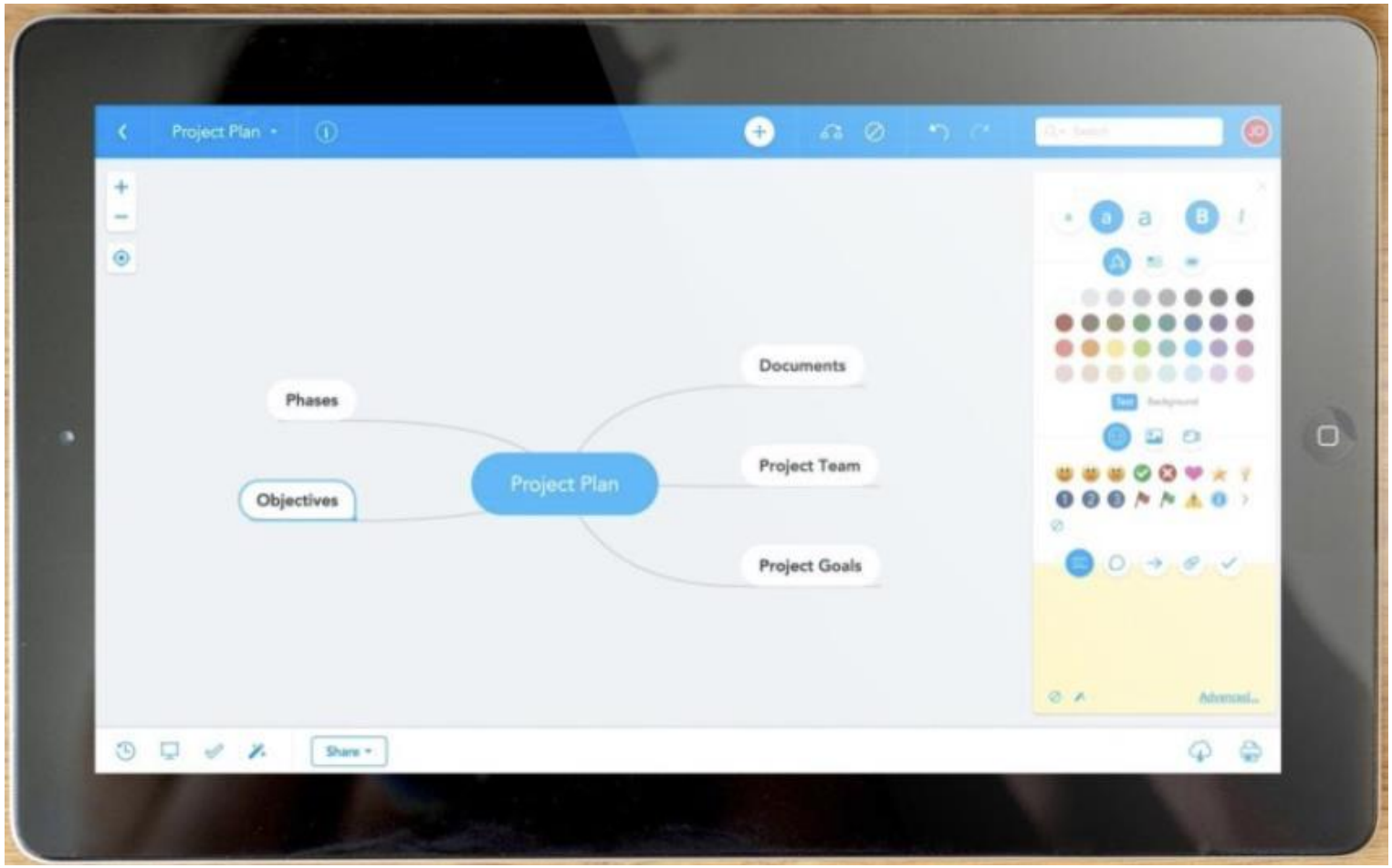


Mind Maps

- A mind map is a diagram used to visually organize information.
- Drawings can be used in place of words
- Show associations
- Can be colourful



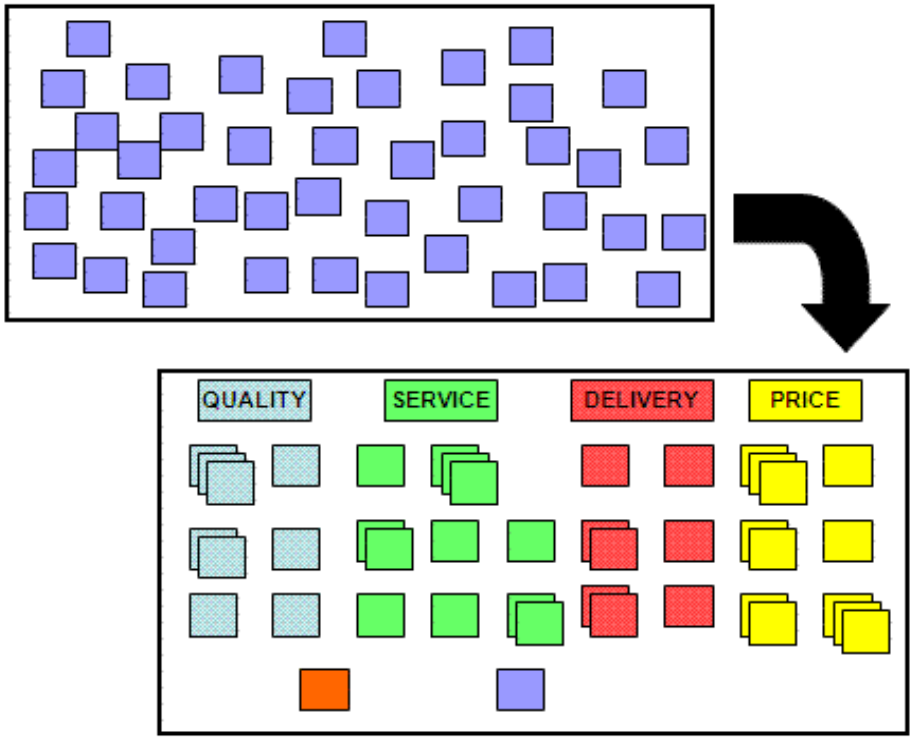
Mind Meister



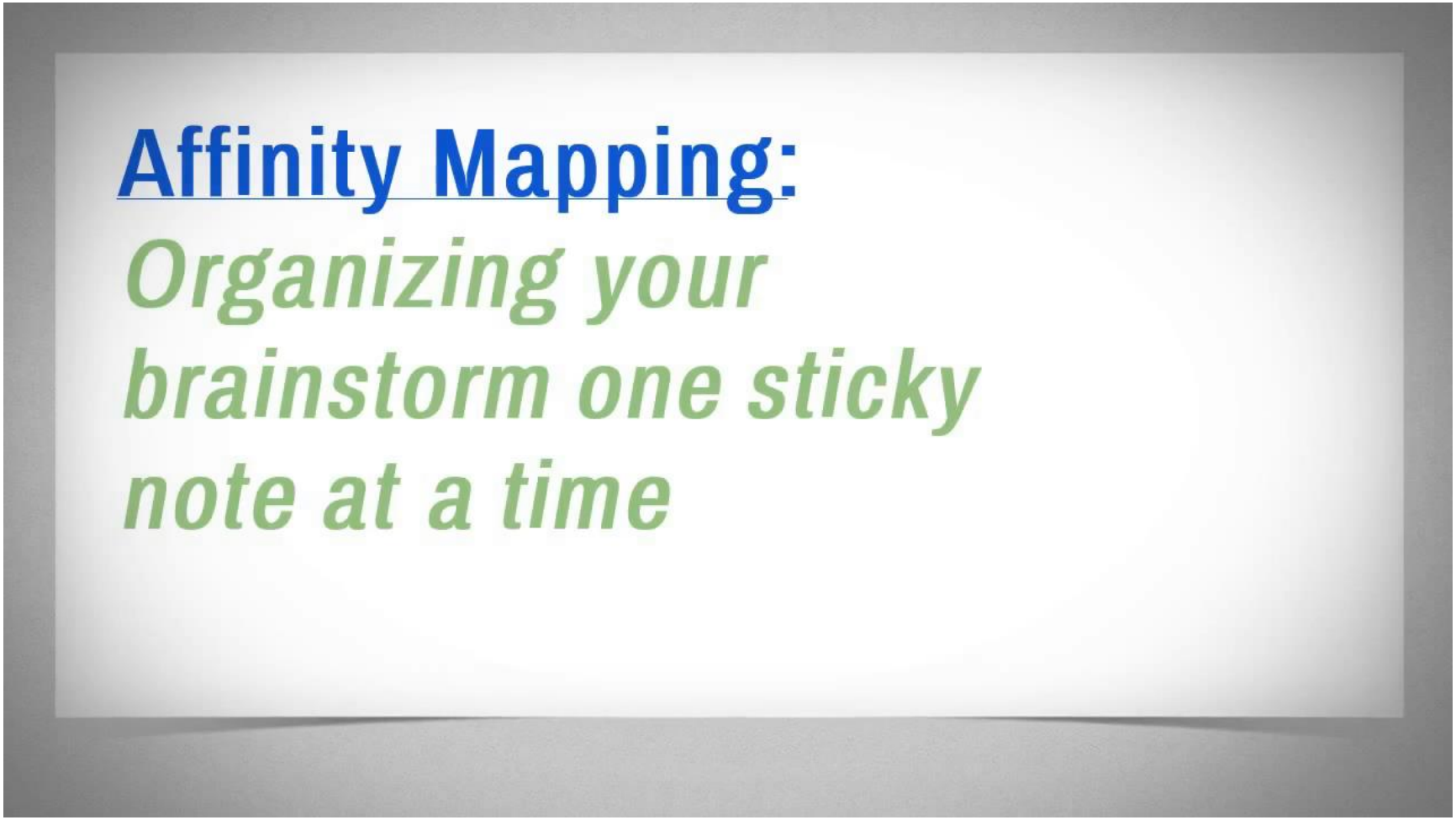
https://www.mindmeister.com/

Affinity Diagramming – in summary

- The affinity diagram organizes a large number of ideas into their natural relationships - looking for common themes and patterns
- Use after a brainstorming exercise
- Or when analyzing verbal data, such as survey results
- Often used as a group technique using post-it notes

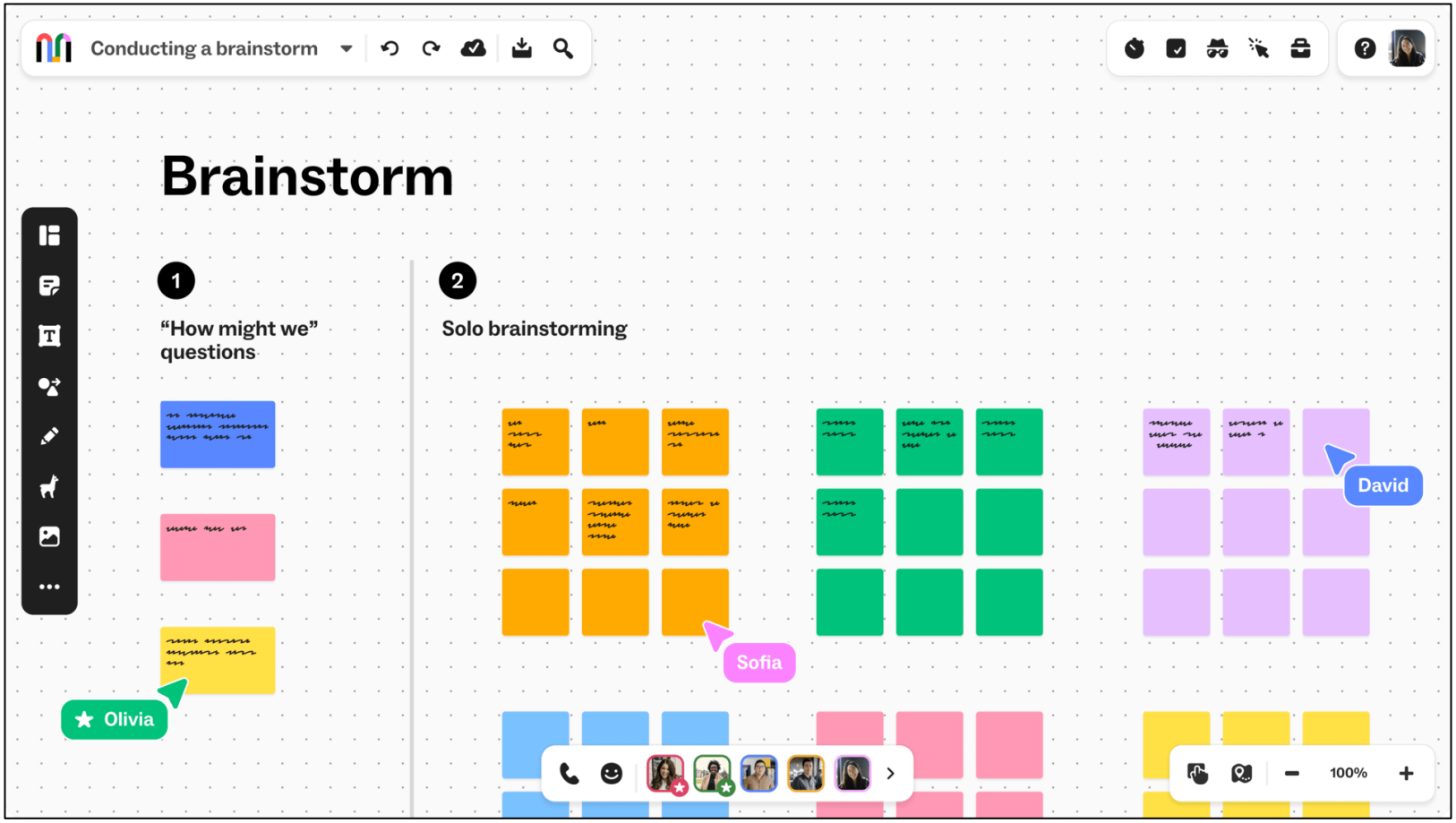


Affinity Diagram



https://www.youtube.com/watch?v=UynxDyr0lAo

The online brainstorming tool for better team collaboration



https://mural.co/use-case/brainstorming-and-ideation?utm_medium=paid-search&utm_source=adwords&utm_campaign=20192573477&utm_campaign_id=20192573477&utm_term&gad_source=1

Product Description Statement

- Around 50 words
- Describe what the product will do to meet the users' goals.

Problem statement

- Problem statement is the base of PDS.
- A problem statement is a concise description of an issue to be addressed or a condition to be improved upon.

Problem statement

1. **IDEAL**: describes the goals of the stakeholders.
2. **REALITY**: describes the current state of the process or product.
3. **CONSEQUENCES**: describes the impacts if the problem is not fixed or improved upon.
4. **PROPOSAL**: describe potential solutions.

Sample - problem statement

- **IDEAL**: Tracking the progress of tasks is important and users need to track their tasks' progress within the task manager apps.
- **REALITY:** The current task manager applications are complicated and cannot show task progress clearly. For example, JIRA, MS ToDo, …
- **CONSEQUENCES**: If users cannot see the task completion percentage, they might not understand whether a task has just started or if it is in the final stages, which can be confusing.
- **PROPOSAL**: There is a need for a task manager application that has a simple interface and shows the progress of all the tasks clearly.

Sample - Product Description Statement

Our task manager app will enable users to enter tasks easily, categorise them, and follow the progress of each task by using different indicators.

Sample - Product Description Statement

Our graphical interactive museum exhibit explores the history of fuels used in transportation, focussing on current and future technologies. Different transport eras can be explored, and users can compare the efficiency of different fuels.

Sample - Product Description Statement

Our exhibit will present a graphical interactive museum exhibit exploring the history of fuels used in transportation with focus on current and future technologies. It can be used by anyone with minimal computer knowledge. Different transport eras can be explored through an engaging view and the efficiency of different fuels compared.

Sample - Product Description Statement

- This interactive utilizes a virtual steering wheel control system for user exploration.
  The user points on a virtual map, to trigger information including transportation details.
  ‘Auto-exploration’ triggers a passive learning mode.

People (stakeholders)

Direct Users (primary)

Indirect Users (secondary)

Direct Users (primary)

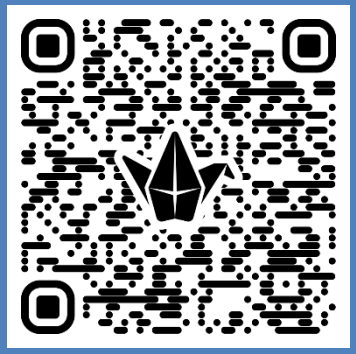
- Any user who will work with our product:
  - Entering data
  - Doing calculation
  - Drawing
  - …

Indirect Users (secondary)

- Indirect users are individuals who do not directly interact with a system or product but are still affected by its use or benefit from its outputs.
- Those who receive report from the product

Lecture activity 1

Who are the direct, and indirect users of a Real estate app?



Data Gathering

- Interviews
- Focus Group
- Questionnaires
- Direct Observation
- Indirect Observation

Data Gathering

- User Interviews:
  - Exploratory
    - During the early stages of the development process
    - Beginning of a project in order to obtain a better understanding of your potential users
    - Collect data about users' experience with an existing product
  - In combination with user testing

Interview techniques

- Ask relevant questions to your product
- Consistency is important
- Avoid leading questions
- Avoid jargon
- Avoid long questions
- Need accurate records
- Need to make participants feel comfortable
- Written consent needed and sometimes ethics approval

Running the interview

1. *Introduction*
2. *Warm-up*
3. *Main body*
4. *Closure*

Types of interview

- Unstructured
  - Open-ended questions, process not pre-determined, can’t replicate
  - Generate rich data, but more difficult to analyze
- Structured
  - Closed questions, pre-determined, standardised procedure, replicable but may lack richness.
  - Used when study's goals are clear, need a pilot study
- Semi-structured
  - Both closed and open questions, start with pre-planned questions, then probe for more details
  - Broadly replicable, provides a good balance between richness and ability to replicate

Open versus closed questions

- Open ended
  - What do you think of this page layout?
  - Do you have any idea to improve the layout of this page?
  - What are some of your favourite websites for finding a restaurant?

Open versus closed questions

- Closed question
  - Are these two buttons distinguishable from one another?

    Please circle your answer YES / NO
  - How many times a week do you use this website?

    Please circle your answer:

    1-5 times a week, 6 – 10 times a week, 10 – 20 times a week, 20 – 50 times a week, more than 50 times a week

Another example of open vs closed questions

- What type of input device do you prefer to use?

_____

VS

- Which of the following input devices do you prefer using? Please circle your answer.
  1. Touchscreen
  2. Touchscreen + audio
  3. Mouse only
  4. Mouse + keyboard
  5. Other?

Interviews

- General considerations
  - Does people's reported behaviour correspond to their actual behaviour
  - How representative is the sample?
  - Were respondents interviewed together or separately?
  - How do these impact on the results?

Group interviews

- Pros: access to more participants, participants less intimidated, build on each others ideas
- Cons: more difficult to find convenient time, need a skilled facilitator to focus discussion, maybe harder to analyse issues from tape

Focus groups

- It is a type of group interview, often used in social sciences research
- Involves 3 to 10 users chosen as a representative sample of target population of interest
- Trained facilitator:
  - guides discussion
  - preset agenda, but unanticipated issues can be explored
  - prompts participants

Focus groups

- Enables people to put forward their opinions in a supportive social environment
- Can be used in requirement gathering to identify conflicts in terminology or expectations between different users.

See ID section 8.4.4

Questionnaires

- *Similar to a structured interview*
- Can have closed and open questions
- Can be distributed easily to large number of people
- Less personal, may be more difficult to get subject participation
- Can be paper-based or online (email, web)
- Sampling can be a problem when the size of a population is unknown as is common online

Different Ways of distributing a questionnaires

- Mail questionnaire
  - Good for highly personal topics
  - Has to be completely self-explanatory
  - No control over order survey is filled out
  - Response bias
  - Costly

Different Ways of distributing a questionnaires

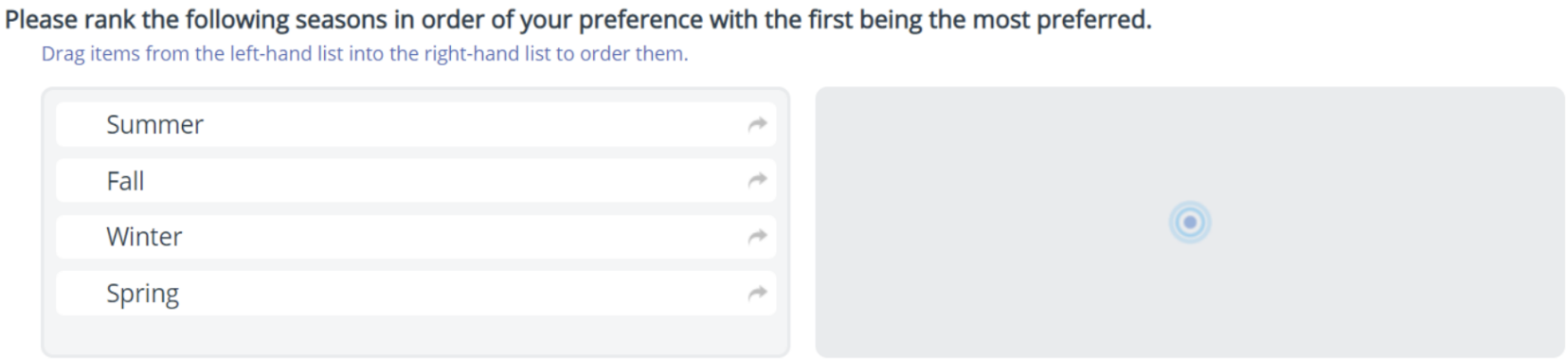
- Online questionnaire
  - Reach large numbers quickly
  - Lower costs - no copying and postage
  - Data analysis is quicker and easier
  - Email - limited to text, but can target specific users
  - Web-based - can include graphics, help-screens, pop-up screens, & can enforce rules such as one selection only

Questionnaire construction

- Steps involved in preparing a questionnaire
  - Decide what information is being sought
  - Decide on type of questionnaire to be used
  - Write a draft of the questionnaire
  - Re-examine and revise the questionnaire
  - Pre-test or pilot the questionnaire
  - Make changes and specify the procedure for use.

Questionnaire construction

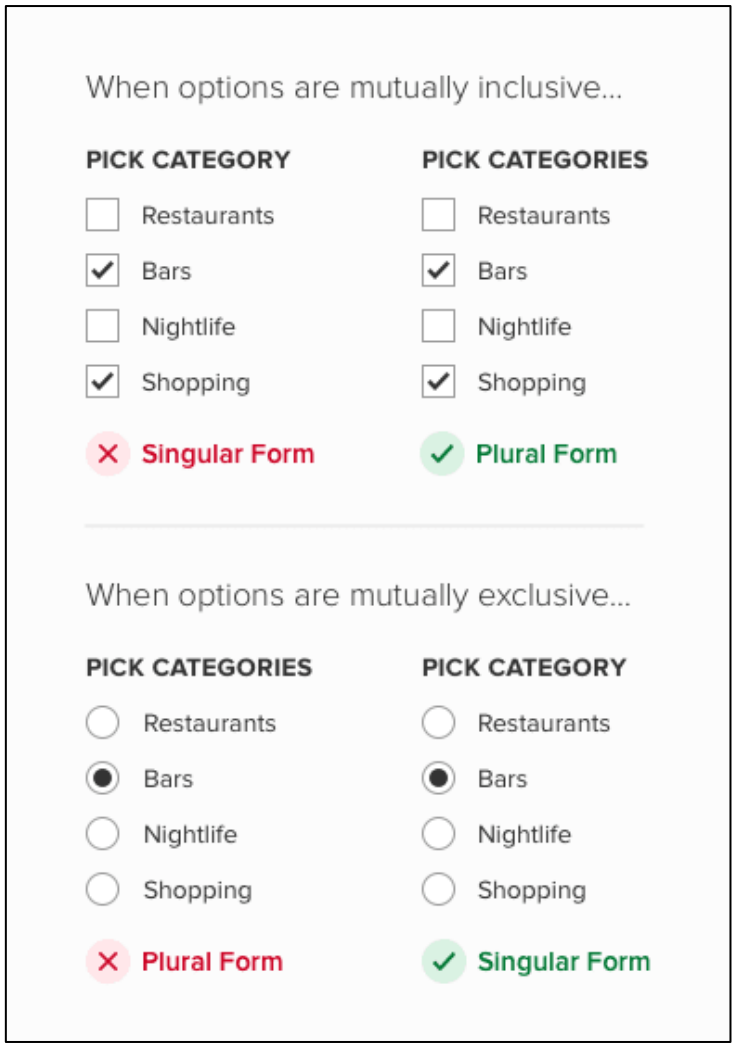
- Order of questions is important
- Wording must be carefully chosen
- Think of the layout and pace
- Instructions clear and succinct

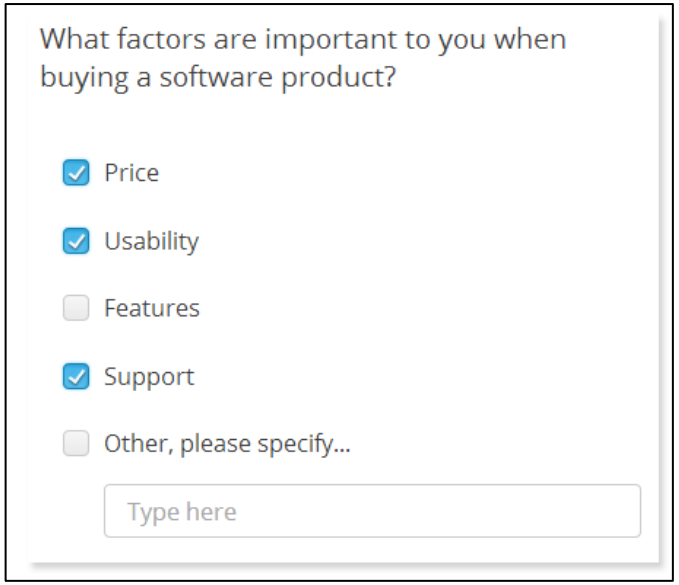


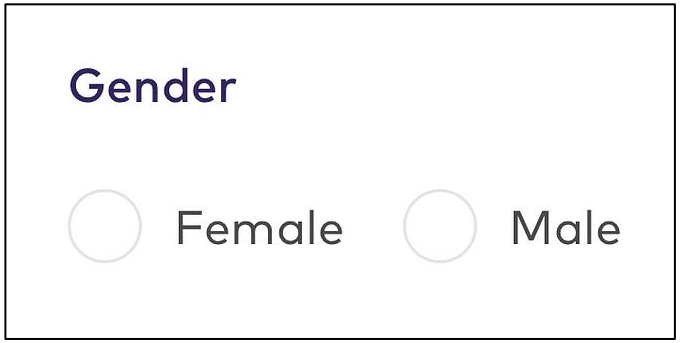
Questionnaire construction

- Layout
  - needs to be easy to understand and fill out
  - make aesthetically pleasing
  - include numbering
  - balance needed between using white space and keeping the questionnaire compact.
- Provide clear instructions on how to complete the questionnaire.
- Avoid long sentences - split compound sentences into two
- Not too long overall

Question and response format



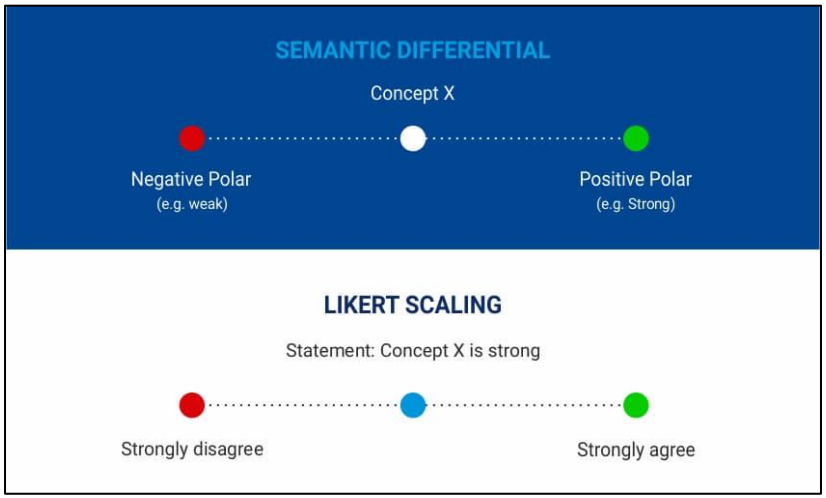




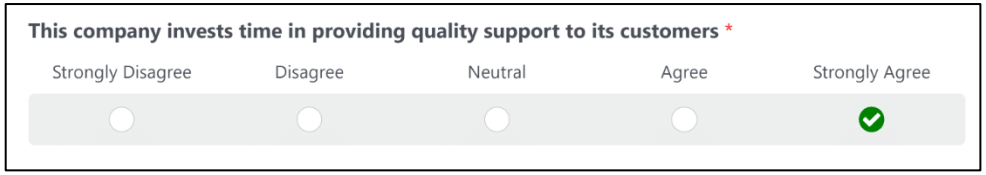
http://fluidsurveys.com/blog/checkbox-questions-multiple-answer-questions/

Question and response format

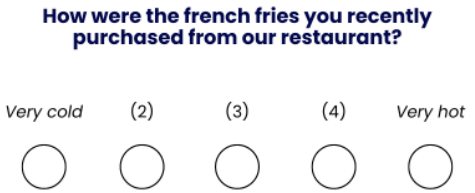
Semantic vs Likert Scale



Likert Scale



Semantic



https://www.questionpro.com/semantic-differential-scale.html

Common characteristics of Interviews and Questionnaires

- Involves a set of predetermined questions
- Involves sampling
- Used to describe characteristics of a population of interest
- Need clear set of goals

Observation

- Direct observation
  - In the field
    - Structuring frameworks: used to guide observation
  - In controlled environments
    - Think-aloud technique
- Indirect observation: tracking users' activities
  - Diaries
  - Logs and web-analytics
  - Watching

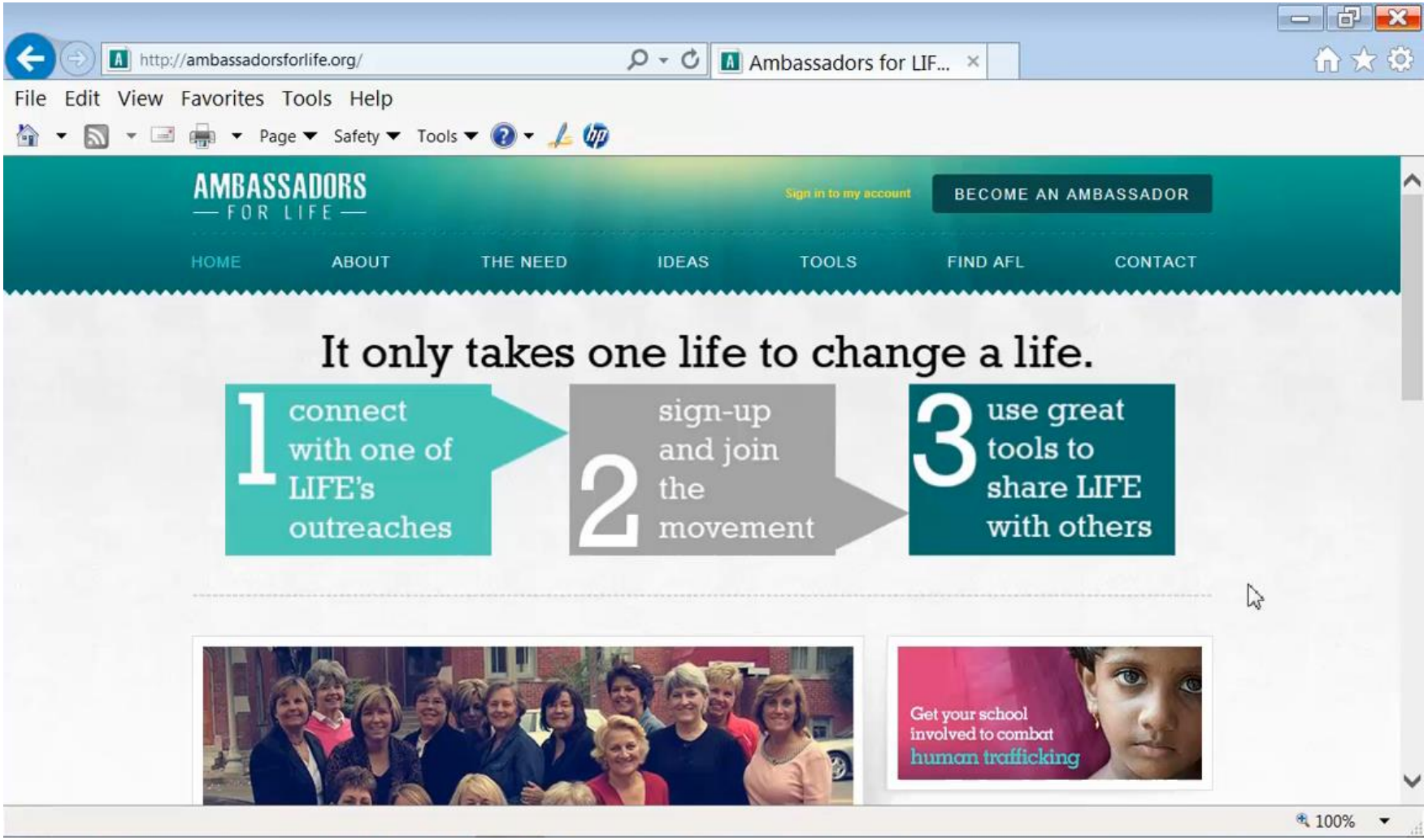
Think Aloud

- It is an observation technique
- Users verbalize their thoughts continuously whilst interacting with a system
- People don’t naturally speak all the time, so you should encourage them
- Facilitator prompts the participant if they have stopped verbalising
  - "What are you thinking about now?"
  - "Describe what is on screen“
- Facilitator listens
- Gather a lot of user comments about the interaction
- Notes are taken, audio may be recorded if have permission

Process

- Formal process involving participant consent
- Explain the objective
- Give the participant a task scenario
  - Describes a goal - but not explicit tasks
- Encourage to think aloud

Think Aloud Demo



https://www.youtube.com/watch?v=g34tOmyKaMM

Sample structuring framework to guide observation

- The Goetz and LeCompte (1984) framework:
  - *Who* is present?
  - *What* is their role?
  - *What* is happening?
  - *When* does the activity occur?
  - *Where* is it happening?
  - *Why* is it happening?
  - *How* is the activity organized?

Data Recording

- Notes, audio, video, photographs
- Notes plus photographs
- Audio plus photographs
- Video
- NO audio or video for your assignments!

Image credit: https://www.lifehacker.com.au/2013/03/record-a-practice-job-interview-ahead-of-time-to-find-errors/

Choosing and combining Data collection techniques

Depends on:

- The focus of the study
- The participants involved
- The resources available

Key issues when data gathering

1. Setting goals
   - Decide how to analyze data once collected
2. Relationship with participants
   - Clear and professional
   - Informed consent when appropriate (ethics)
3. Multiple approaches
   - Gather information/data using more than one approach
4. Pilot studies
   - Small trial of main study

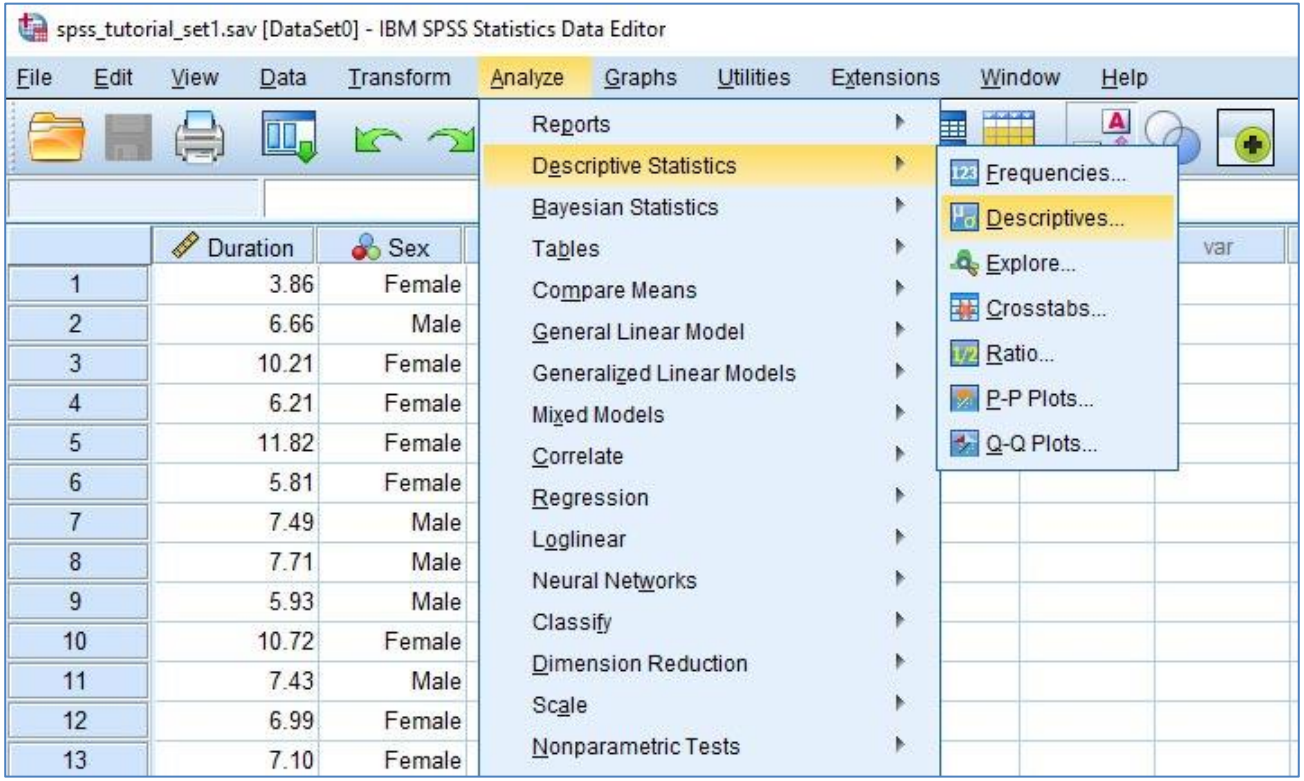
- Note: Data gathering used both to develop requirements and for evaluation purposes

Analysis

- You may gather both qualitative and quantitative data in your data collection
- Find patterns and use methods to group the data (consider affinity diagramming)
- Look for trends, consider statistics (if there are enough responses)

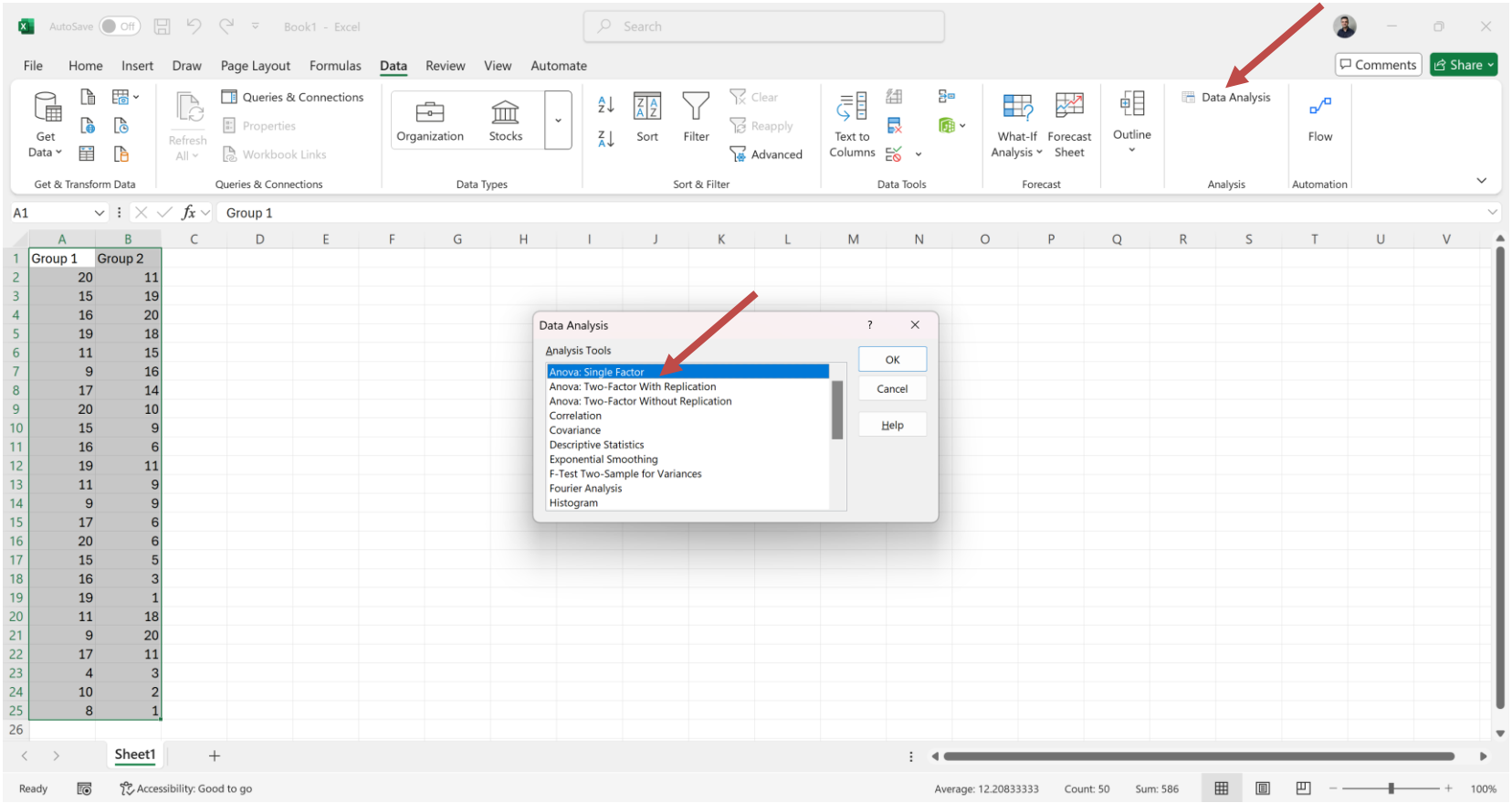
Quantitative Analysis

- Statistical analysis tests such as: Mean, Standard deviation, T-test and ANOVA
- Software: Excel, SPSS



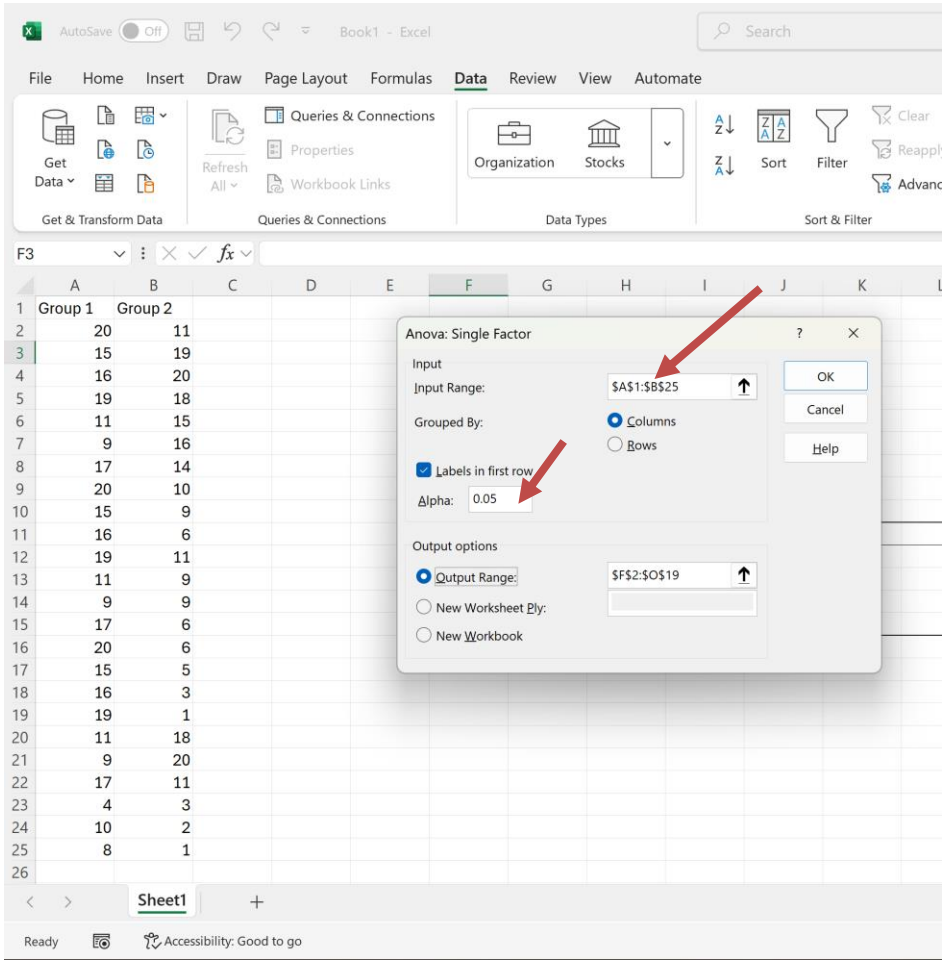
Quantitative Analysis

- Statistical analysis tests: Mean, and ANOVA
- Software: Excel



Quantitative Analysis

- Statistical analysis tests: Mean, and ANOVA
- Software: Excel



Quantitative Analysis

- Statistical analysis tests: Mean, and ANOVA
- Software: Excel

	A	B
1	Group 1	Group 2
2	20	11
3	15	19
4	16	20
5	19	18
6	11	15
7	9	16
8	17	14
9	20	10
10	15	9
11	16	6
12	19	11
13	11	9
14	9	9
15	17	6
16	20	6
17	15	5
18	16	3
19	19	1
20	11	18
21	9	20
22	17	11
23	4	3
24	10	2
25	8	1
26		

Anova: Single Factor

SUMMARY

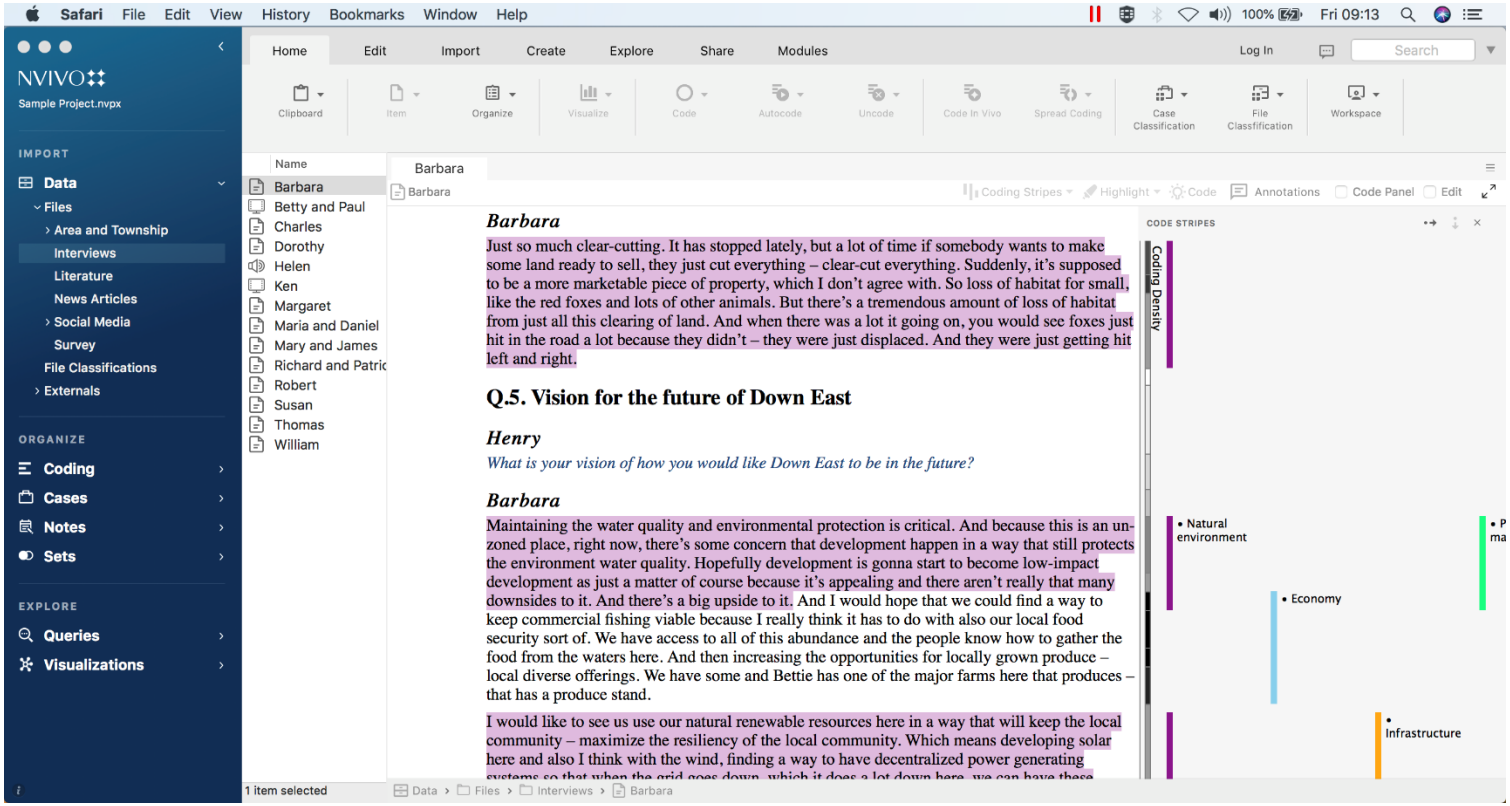
Groups	*Count*	*Sum*	*Average*	*Variance*
Group 1	24	343	14.29167	20.73732
Group 2	24	243	10.125	38.63587

ANOVA

Source of Varia	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between G	208.3333	1	208.3333	7.017758	0.011023	4.051749
Within Grou	1365.583	46	29.68659			
Total	1573.917	47				

Qualitative Analysis

- Finding patterns by categorizing collected data using keywords
- Software: NVIVO



Qualitative Analysis

- Using generative AI

Data gathering techniques: summary table

Technique	Good for	Kind of data	Advantages	Disadvantages
Interviews	Exploring issues	Some quantitative but mostly qualitative	Interviewer can guide interviewee if necessary. Encourages contact between developers and users	Time-consuming. Artificial environment may intimidate interviewee
Focus groups	Collecting multiple viewpoints	Some quantitative but mostly qualitative	Highlights areas of consensus and conflict. Encourages contact between developers and users	Possibility of dominant characters
Questionnaires	Answering specific questions	Quantitative and qualitative	Can reach many people with low resource	The design is crucial. Response rates may be low. Unless carefully designed, the responses may not provide suitable data
Direct observation in the field	Understanding context of user activity	Mostly qualitative	Observing gives insights that other techniques don't give	Very time-consuming. Huge amounts of data are produced
Direct observation in a controlled environment	Capturing the detail of what individuals do	Quantitative and qualitative	Can focus on the details of a task without interruption	Results may have limited use in the normal environment because the conditions were artificial
Indirect observation	Observing users without disturbing their activity; data captured automatically	Quantitative (logging) and qualitative (diary)	User doesn't get distracted by the data gathering; automatic recording means that it can extend over long periods of time	A large amount of quantitative data needs tool support to analyze (logging); participants' memories may exaggerate (diary)

Table 7.1 Overview of data gathering techniques and their use

Table 7.1, p270 in ID 2015

Lecture activity 2

You want to design a learning app for children 4-7 years old. If you can just select one data collection method which method, will you choose? And why?

1. Interview
2. Questionnaire
3. Observation
4. Focus group

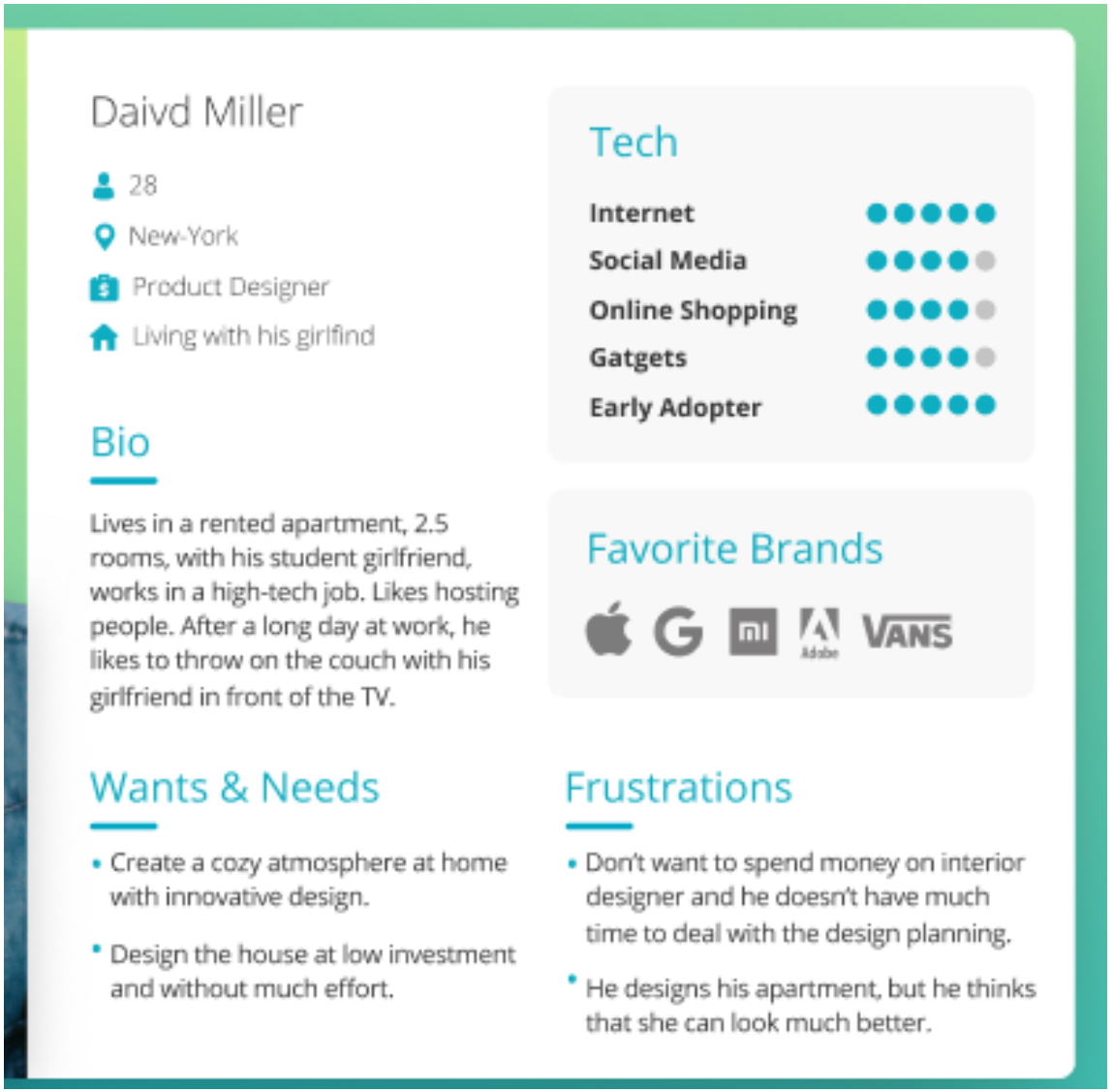
Summary of Data Gathering

- Three main data gathering methods: interviews, questionnaires, observation
- Key issues for data gathering: goals, multiple approaches, participant relationship, pilot
- Interviews may be structured, semi-structured or unstructured
- Questionnaires may be on paper, online or telephone
- Observation may be direct or indirect, in the field or in controlled setting
- Techniques can be combined depending on study focus, participants, and available resources

Break time

Personas

- Fictional characters that represent different user types
- This requires research
- Personas help to recognize different needs of different groups of users



Persona Information

- Demographic
  - Gender
  - Age
- Photo (stock photo)
- Describe their goals, what are they aiming to achieve
- Describe their feelings
- Online activity

Persona:	USDA Senior Manager Gatekeeper
Photo:	
Fictional name:	Matthew Johnson
Job title/ major responsibilities:	Program Staff Director, USDA
Demographics:	• 51 years old • Married • Father of three children • Grandfather of one child • Has a Ph.D. in Agricultural Economics.
Goals and tasks:	He is focused, goal-oriented within a strong leadership role. One of his concerns is maintaining quality across all output of programs. Spends his work time: • Requesting and reviewing research reports, • preparing memos and briefs for agency heads, and • supervising staff efforts in food safety and inspection.
Environment:	He is comfortable using a computer and refers to himself as an intermediate Internet user. He is connected via a T1 connection at work and dial-up at home. He uses email extensively and uses the web about 1.5 hours during his work day.

Persona example

Nicolle - 34 Year Old Certified Hand Therapist from West Chicago, IL

"My downtime is precious; I make every spare moment count!"

Personal Background

Nicolle has been an Occupational Therapist for nearly a decade. She travels from her home in West Chicago to the city of Chicago via train daily for her job. She is married (Russ) and has two daughters ages 5 (Sydney) and 10 months (Avery) who occupy most of her time when she is not working.

Since downtime is truly a luxury for Nicolle, she likes to take advantage of her daily commute to keep up with the television series that she has purchased season passes for on iTunes. Her iPhone is her constant companion—she uses it to keep in touch with friends and family via email and text messages, but also uses it to keep up with her patient workload. In addition, she has her high-energy playlist ready to go for her lunchtime workouts at the gym in her building.

Nicolle enjoys the all-in-one aspect of her iPhone but does not like to be encumbered by the wires of her earbuds that seem to always get tangled in her pocket. She thinks that the small, single-ear Bluetooth headsets make people look self-important to the point of being ridiculous, so she is hesitant to even consider a Bluetooth option. She is looking for headphones to make her commuting lifestyle easier. As long as the right headset doesn't make her look silly and can function as headphones and a microphone for speaking into during phone calls, she could be persuaded to give them a try.

More About Nicolle

Motivators

Nicolle's standard iPhones ear buds cord continually gets tangled when stored in her pocket or caught up in her clothes and jacket when she's working out or walking to and from her office to the train station. It's a minor annoyance, but removing the annoyance would be very welcome.

ACMEblue Bluetooth Headset Trigger Point

Nicolle saw the ACMEblue on display at the Apple Store on Michigan Avenue in Chicago and decided to try them on. She liked them, but went online to Apple.com and Amazon.com to check-out the reviews online to further influence her decision.

Engagement & Activities

Personal Computer: High / Fluent; comfortable with common apps
Internet Usage: Medium / Fluent; not adventuresome, but has a personal blog, Flickr, YouTube for friends and family.
Mobile: High / Fluent; seeks new tools to help her day-to-day. Uses text messaging frequently, but not high volume.
Social Networking: Facebook & LinkedIn, no MySpace; she likes to stay in touch and aware of how her friends and professionals contacts are doing.
Television Shows: Biggest Loser, Scrubs, How I Met Your Mother, American Idol, Iron Chef and Ace of Cakes
Magazines: Stays current with Celebrity and Parenting periodicals.

How many personas?

- The number of personas you need to define depends on the different types of stakeholders who will use your application.

Personas create empathy to guide design but disappear when not believable

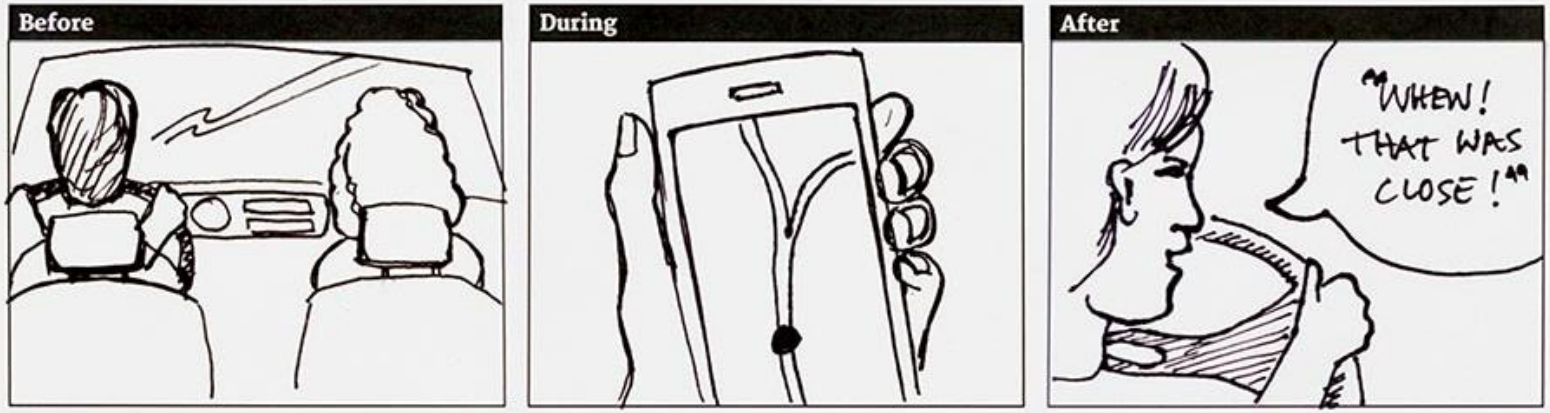
Jared Spool[1]:

> That value comes when the team visits and observes their target audience,
>
> absorbs and discusses their observations, and reduces the chaos into patterns,
>
> which then become the personas.
>
> What's in the team's head, as they are designing, is what will make a difference in the final design.
>
> The persona descriptions are just there to remind everyone what happened.

[1]User Interface Engineering (www.uie.com)

Context scenarios & task scenarios

Title: DRIVING TO CHICAGO; LOOKING FOR THE SHEDD AQUARIUM



Description:

ON THE HIGHWAY WITH THE FAMILY, TRYING TO FIGURE OUT THE BEST EXIT TO SHEDD AQUARIUM.

I ASK MY WIFE FOR HELP.

MY WIFE TAKES THE PHONE AND OPENS UP THE MAP. THE MAP LOCATES US AND SHE FINDS THE NEAREST EXIT TO THE AQUARIUM.

WE ARE ONLY ½ MILE FROM THE EXIT

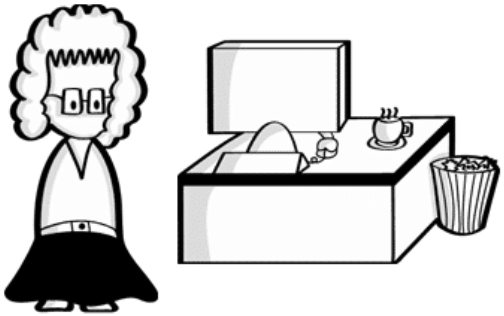
WE TAKE THE EXIT AND BREATHE A SIGH OF RELIEF AS WE TURN OFF THE HIGHWAY, SEEING SIGNS FOR THE AQUARIUM.

Context Scenarios

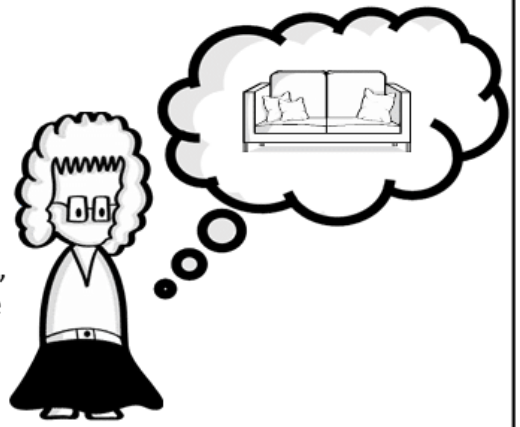
- **Context scenarios** define the core problem and user need
- **Context scenarios** are stories which designers create to show how users might act to achieve a goal in a system or an environment
- Based on the findings of the **interviews**, you can start to write context scenarios (narrative)

Sample context scenario

Mary works in an office where she spends most of her day sitting still behind her computer.



She often gets back pain and she wishes she could exercise more, but at the end of her workday she has to pick up the kids and cook dinner, so when she has free time she just wants to lie on her couch



Mary isn't the only one in her office who would like to exercise more, so her team have decided to download the app "team move" to motivate each other to exercise

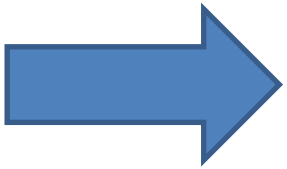
"Team Move" was recommended to Mary by one of her friends. The app let's her and her co-workers give each other exercise challenges.

Work created with Scenes™ by SAP AppHaus (https://experience.sap.com/designservices/scenes)

Context scenario (example)

Teenager with deaf and blindness

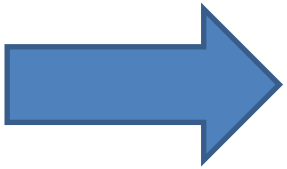
Suzan uses the Web to find new restaurants to go to with friends and classmates. She has low vision and is deaf. She uses a screen magnifier to enlarge the text on Web sites to a font size that she can read. When screen magnification is not sufficient, she also uses a screen reader to drive a refreshable braille display, which she reads slowly.



http://www.w3.org/WAI/intro/people-use-web/stories

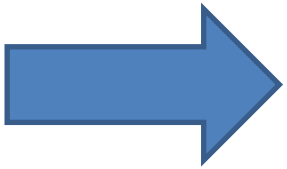
Context scenario (example)

At home, Suzan browses local Web sites for new and different restaurants. Within her Web browser, she uses a personal style sheet , which makes all Web pages display according to her preferences. Her preferences include having background patterns turned off so that there is enough contrast for her when she uses screen magnification. This is especially helpful when she reads on-line sample menus of appealing restaurants.



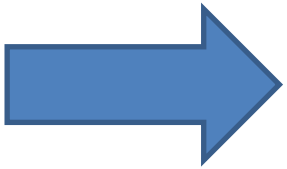
Context scenario (example)

A multimedia virtual tour of local entertainment options was recently added to the Web site of the city in which Suzan lives. The tour is completely captioned and described, which allows her to access it using a combination of screen magnification and braille.



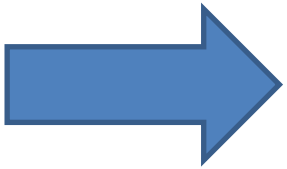
Context scenario (example)

She also checks the public transportation sites to find subway or bus stops near the restaurants. The subway schedule is easy to use because the frames on that Web site are clearly labeled, and the schedules, which are laid out as long tables, have clearly identified row and column headers that she uses to orient herself even when she has magnified the screen display.



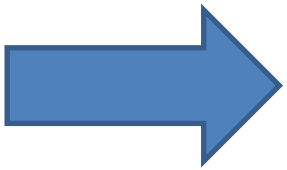
Context scenario (example)

The Web site for the bus schedule has unlabelled frames and tables without clear column or row headers, and she often gets lost on the site when trying to find the information she needs.



Context scenario (example)

Suzan also uses a mobile phone to access the Web when she is not at home. The phone displays buttons or braille characters on the screen, and uses the vibration function to signal them when she scans over the touch-screen with her fingertips. She uses the GPS on her phone to better orient herself, to find out about what is nearby, or for recording reviews about restaurants in her favorite city guide.



Context scenario (example)

She has also used her portable braille device, with an infrared connection, to get additional information and directions at a Web-based public information kiosk in a shopping mall downtown; and a few times she has downloaded sample menus into her braille device so that she has them in an accessible format once she was in a restaurant.

Create a context scenarios

- Personas are the main characters in the scenario
- You create the story around these.
- **Templates**: Aspects of scenario to consider:
  - Persona – who
  - User goals – why
  - Sequence – when
  - Context – where

Context Scenarios

- A day in the life of a user
- Explains goals and needs
- Not technology specific
  - Don't talk about actions or using a specific technology
  - No system behaviour

Context Scenario

- High level description of the tasks that they are currently performing
  - Don't be specific about interface details – E.g. ‘they press the button labelled …’
- "Context scenarios need to engage the imagination and help people see the possibilities, not bog them down in detail“ Goodwin p318
- Scenario should be about Sequence of information exchange, actions and results.
- User focused not system focused

Why use context scenarios?

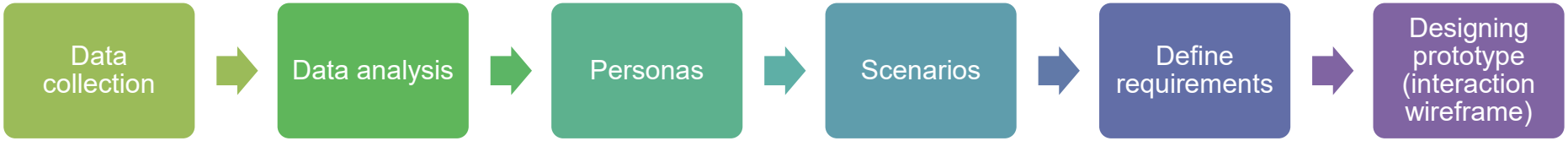
- Provides a snapshot of the critical points of user interaction
- Keeps context in which the tasks are carried out
  - by including other elements such as phone calls, forms, interruptions…
- Helps to get into the ‘user’s shoes’
- Provides a means to envisage workflow

Scenarios in the design process

- Requirement analysis
  - envisage a series of activities based on knowledge of user environment, user requirements, common practices & workflow
- Design
  - Provide context for brainstorming leading to mock-ups and prototypes
- Evaluation
  - Baseline against which to compare results

The role of context scenario in UCD

UCD is an iterative, repeatable, and testable process:

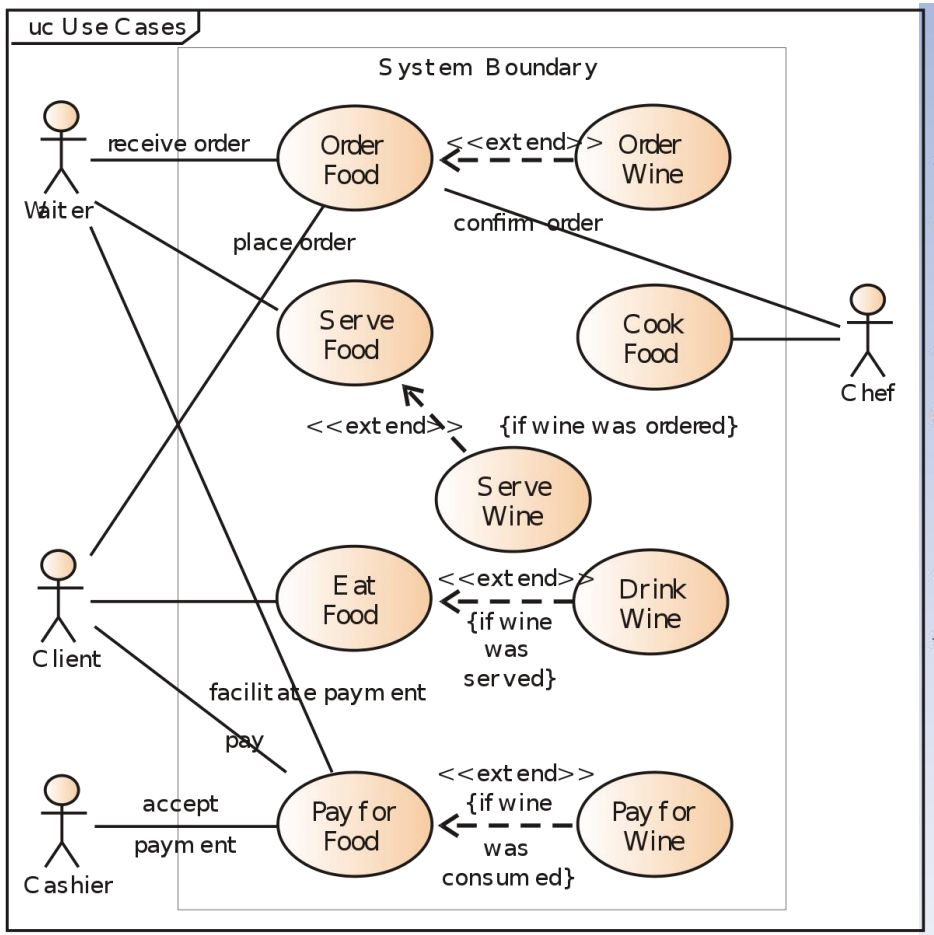


Context scenarios versus Use case scenarios

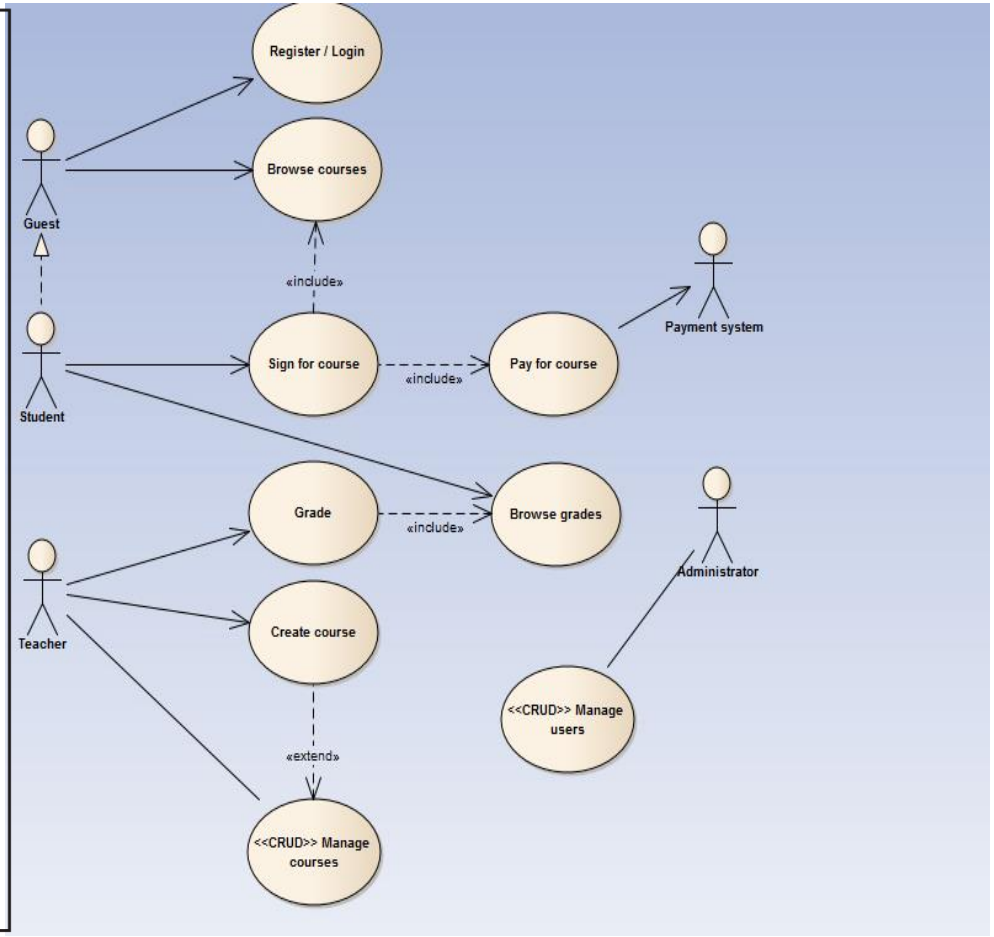
- Use case scenarios - include users' goals, but emphasize the user-computer interaction, not how the system behaves [black box] or what emphasis placed on tasks [focus]
  - Not a substitute for user-centered design when written before users have been involved
- Context scenarios - who, what, when, why, where from the user's perspective…concrete narratives focusing on specific activities

Use Case Scenarios

Restaurant application



E-learning application



Task Scenarios

- A task scenario is the action that you ask the participant to take on the tested interface.
- It is used in the usability test process.
- Example: You're planning a vacation to New York City. You need to buy both airfare and hotel. Go to the American Airlines site and see if they have a good deal.

Lecture activity 3

- You want to develop a study planner application for computer science students.
- Write a persona from the perspective of a computer science student.