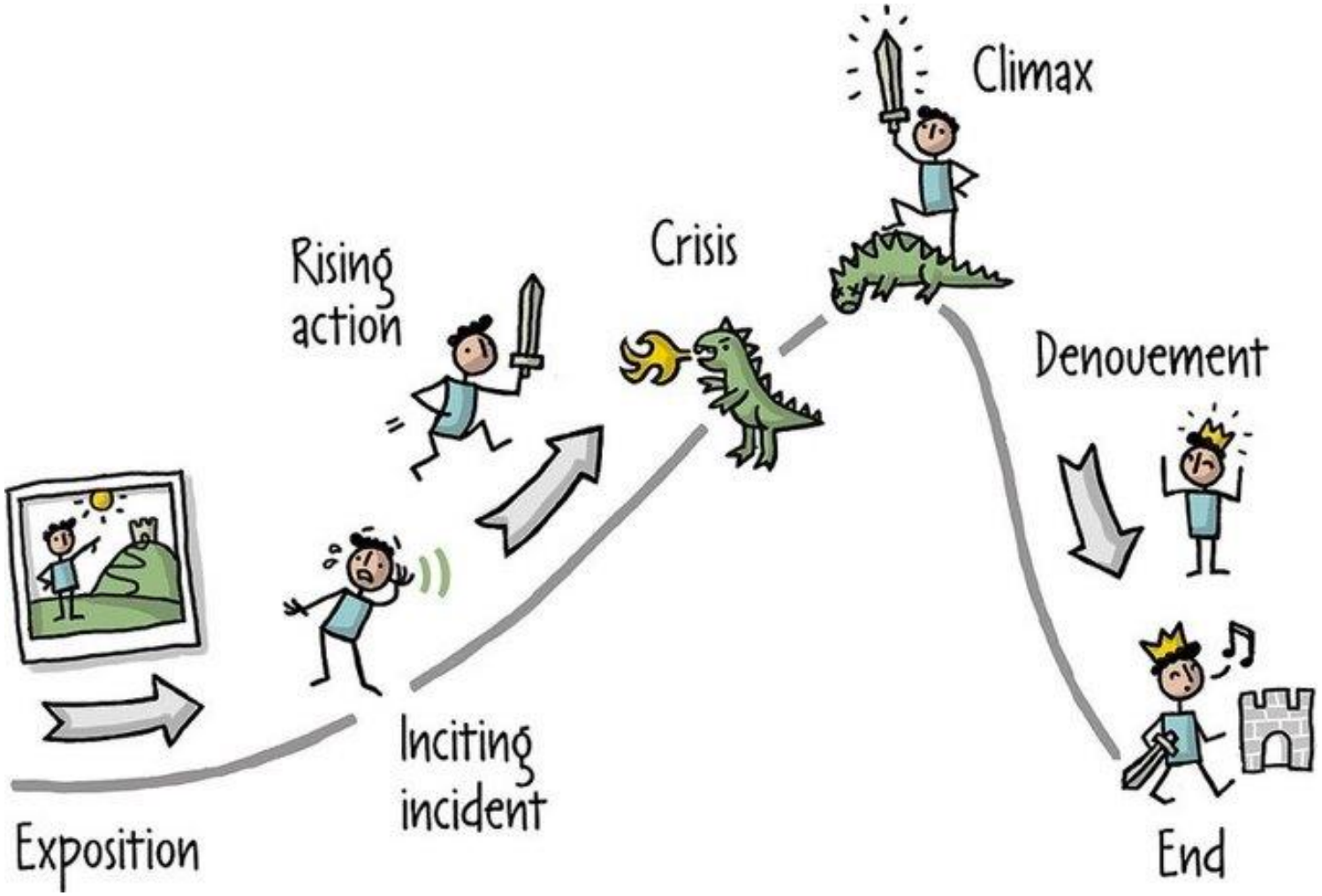
What is Storytelling? (CO3)

- Designers use storytelling to get insight into users, build empathy and reach them emotionally. Designers create personas to represent target users and add conflict to stories that reflect their user journeys and problems. Crafting stories, designers can better understand what users want from a solution.

- The art of powerful storytelling. Everyone has stories to tell, but storytelling is a skill that can be developed and as a tool it can be used to powerful effect. Developed and used purposefully, storytelling can contribute to inclusion and connection, build confidence, and bring about change.

Storytelling (CO3)

You can use storytelling in your design process to present your user research results in an engaging way and create empathy with your target users. This will help you steer the design process and keep it user-centric.



Why Storytelling (CO3)

- After completing design research to understand your users' needs and desires.
- You use your insights to tell a story about who your users are, what they need and how you'll provide that.
- The story makes it easy for everyone involved in the project to empathize with the users and ensure that their work matches the story.
- Having a story throughout your project means marketing the design at the end of the design process is also straightforward, as you already know exactly which story to tell to show how your product provides value.

Aristotle's 7 Elements of Good Storytelling (CO3)

Important elements of storytelling (CO3)

- Plot – What are users trying to achieve/overcome?
- Character – Who are the users: not just demographically, but what insights do you need to understand what they (and their needs) are truly like?
- Theme – How can you establish a trustworthy presence to them and still set yourself apart from competitors? How will you reflect the overall obstacles users must overcome?
- Dialogue/Diction – What will your design say to users and how? Does a formal/informal tone match their expectations? How much text is appropriate?
- Melody – How will the overall design pattern appear pleasant and predictable to users, moving them emotionally?
- Décor – How will you present everything so the graphics match the setting the users can sense? Would a classic design or stylized, niche layout meet their expectations?
- Spectacle – How can you make your design outstanding so users will remember it?

Personas mapping with storytelling (CO3)

Story mapping is a visual exercise to capture the journey a customer takes with the product including activities and tasks they perform with the system to achieve certain goals or objectives. Personas can be mapped with storytelling. Steps:

- **Define your target users with personas**– To envision users' likely experiences and gain empathic insights. Personas are based on user research but tell a story about your insights.
- Example: Rick, a 47-year-old manager struggling with his work–family-life balance. He even works on his train commutes. Feeling drained, he wants better control of his life.

Personas mapping with storytelling (CO3)

Give your design the supporting role – Show it improving your persona's/user's life and how easy it is to use.

- Example: Consider how many steps Rick needs to use your app and if voice-controlled devices at home might influence its suggestions.

Work with the setting –When and where users use your design is vital for building empathy.

- For Rick, it's the home, train and workplace. But what about (e.g.) busy professionals working from home?

Tailor the look/feel – A design's appearance is vital regardless of its functional benefits, so design the most appropriate (e.g.) layout, colors, typography.

- For example:
- Rick prioritizes an at-a-glance, easy-to-use design, but soothing colors would complement larger fonts, etc.

Personas mapping with storytelling (CO3)

Strategic Storytelling can elevate influence as a designer and inspire action in an organization. It allows enhanced collaboration with stakeholders, build influence, and change attitudes and behaviors. How can a well crafted story help:

Thought Leadership

Highlight the conflict that was resolved. Integrate the key data points or the reasons why the approach works into a larger narrative to make those reasons stand out and the data points more memorable.

Performance Reviews

Showcase the *impact* through a concise, powerful story. It helps in getting valuable feedback and also detail of the challenges you overcame helps in solution designing making a difference for users—and maybe even the business at large.

Research Readouts

Make one user the protagonist of your story—walking your colleagues through particular challenges they face and why those challenges are relevant. Storytelling can illuminate research insights and user testing results in new ways, helping as you ideate on how to implement user feedback or work to align various stakeholders.

Personas mapping with storytelling (CO3)

Future Vision

Create a character based on a persona to explain your vision. Consider the example of a busy, stressed-out parent who doesn't have time for household chores. In the future vision, this parent is thriving, healthy, happy and able to spend quality time with their kids. That's a powerful image that makes the case for your product: an app that lets users schedule household service providers.

Design Value

Share the story of how a particular user's experience has improved because of a design change. What attribute to the impact of design—and a powerful way to explain why users love a new feature.

Project review

Craft a story about what your team accomplished at the close of a design project. Share how a persona's goals were accomplished thanks to the work you did. Assessing the final results with stakeholders and gaining the feedback you need to move forward will be effective.

Ways to engage audience (CO3)

1. ***Benefit the other***

Be a great brand evangelist. “Evangelism comes from a Greek word meaning bringing the good news. The crux of evangelism is the benefit of the other person.” Unlike other forms of sales, evangelism is focused on helping others.

2. Focus on differentiation & value

Use a 2x2 matrix to find what to work on. The vertical axis measures differentiation or uniqueness, while the horizontal axis represents value. Focus on things in the upper right-hand corner of the matrix—both unique and valuable. For example, the iPod was successful because it was the only device with an easy-to-use interface, and it could also deliver a wide selection of music legally and inexpensively. This framework not only applies to products and services but also how you consider your own value and personal brand.

Ways to engage audience (CO3)

3. Build trust

To gain trust, it should go both ways. Take example of Zappos, which offers free shipping both ways, a policy that could have easily been abused. However, the company trusted their customers by default, which encouraged them to order shoes online. This mutual trust ultimately created the foundation for Zappos' success.

4. Back up your recommendations with story

Stories are powerful tool as they are memorable, stories are relatable, stories break the ice.

The Opposite Test: Listen to your competitors and how they describe their product. Then, use adjectives and descriptions that are the opposite of what they're saying.

The Elevator Pitch: It's important to be brief. You should be able to explain anything in 30 seconds.

By mastering these skills, you'll be able to get closer to changing hearts and minds.
But don't feel discouraged if you don't get it right the first time. Failure is a better teacher than success.

Successful Campaigns (CO3)

Some of the campaigns are determined by the growth of the brand as well and the social media success after the advertising campaign.

Example :

1. Volkswagen: Think Small

The Volkswagen “Think Small” campaign was created in 1960 by a well-known advertising group Doyle Dane & Bernbach.

What the group set out to do was to answer one question – how to change people’s perceptions about a product. American always liked to buy big and 15 years after WWII they were still not buying small German cars. The thing about Volkswagen is that they never tried to be something there weren’t which is what people still today love about the brand - truth about a product.

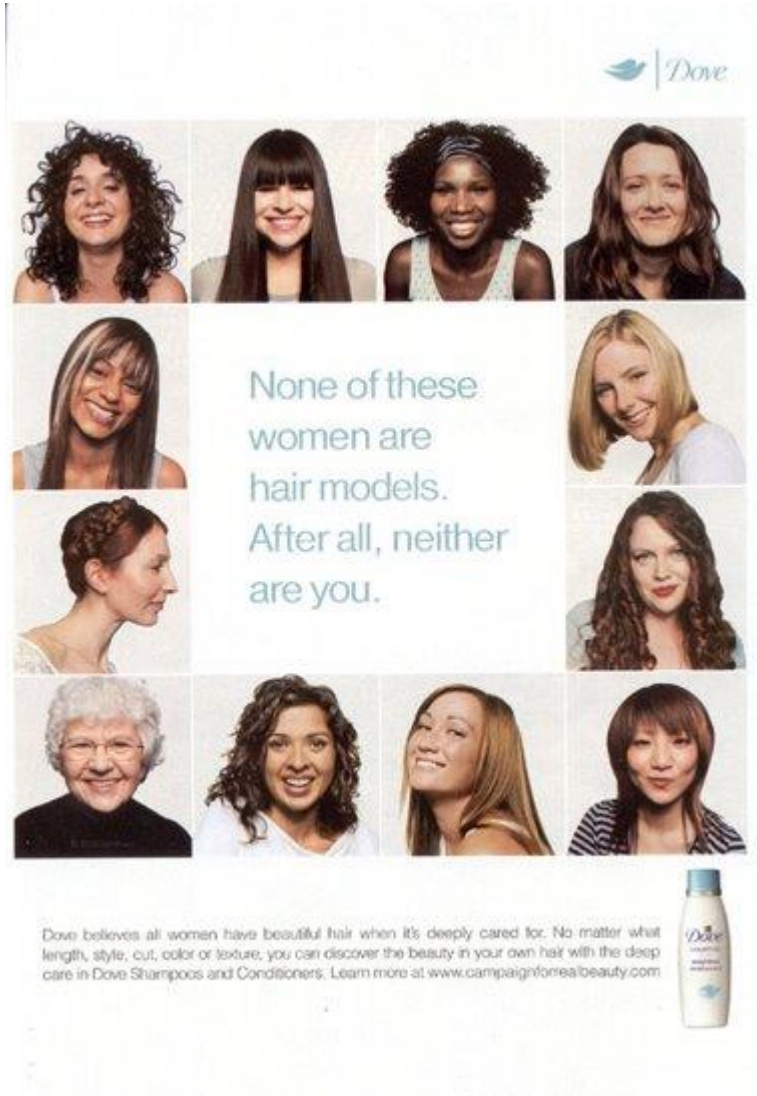
https://www.linkedin.com/pulse/think-small-most-successful-marketing-campaign-daveenci/

Successful Campaigns (CO3)

Dove: Real Beauty

Dove's real beauty campaign was all about beauty products giving you confidence, not anxiety.

The campaign began turning heads in 2004 about topics that were sensitive but meaningful to their customers. The campaigns were shared, uploaded and translated across 110 countries.



https://www.studysmarter.co.uk/explanations/marketing/marketing-campaign-examples/dove-real-beauty-campaign/

In class activity on story telling

Testing of design with people (CO3)

- Testing is the fifth stage in the five-stage design thinking process.
- Testing is, quite simply, the process of testing your prototype on real users.
- During the test phase, you'll see how your target users interact with your prototype, and gather valuable feedback.
- You'll learn where your prototype succeeds and where it needs to be improved.
- The insights gathered during the testing phase will enable you to iterate on your prototype.

5 Guidelines for Conducting a Test (CO3)

1. Show, don’t tell: let your users experience the prototype
2. Ask test participants to talk through their experience.
3. Observe your users.
4. Ask follow-up questions.
5. Negative feedback is your way to learn and improve.

Benefits of Testing (CO3)

User testing saves time and money

By catching errors and usability issues early on, you ensure that the product you eventually launch is the most bug-free, user-friendly product it can be.

User testing reveals unexpected insights.

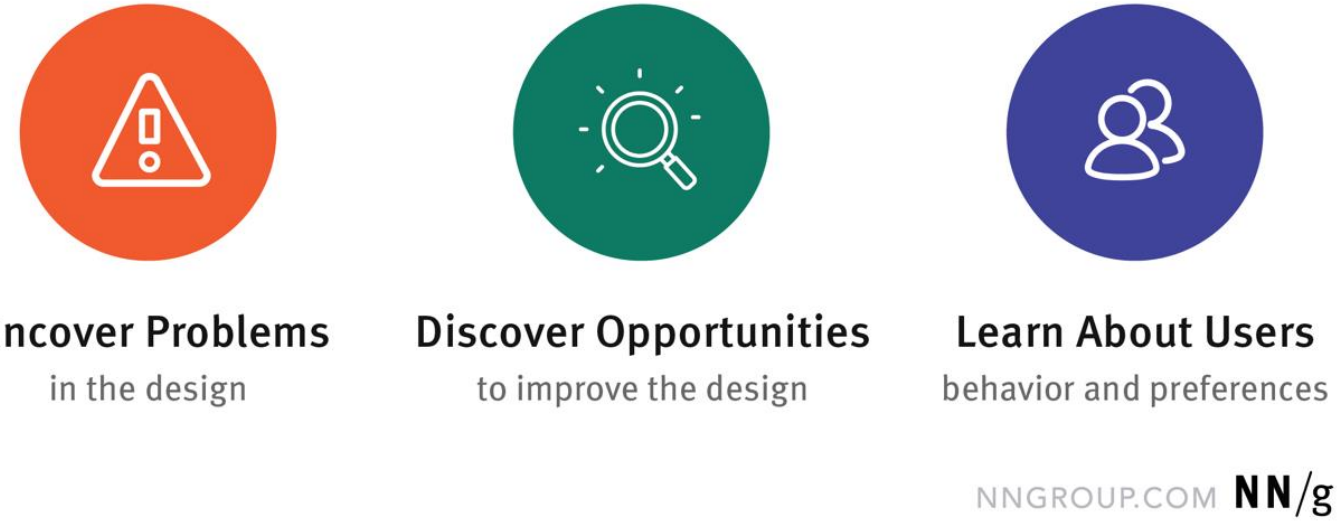
No matter how thorough your initial user research was, or how convinced you are that you've designed the optimal solution to your user's problem, there are always new insights to be uncovered.

User testing improves user satisfaction.

Design Thinking is all about putting the user first. By gathering first-hand user feedback, you can make informed design decisions—improving user satisfaction in the long run.

Usability Test (CO3)

Why Usability Test?



https://www.nngroup.com/articles/usability-testing-101/

Usability Testing (CO3)

Core Elements of Usability Testing

Facilitator

Guides the participant through the test process

Tasks

Realistic activities that the participant might actually perform in real life

Participant

Realistic user of the product or service being studied

NNGROUP.COM NN/g

https://www.nngroup.com/articles/usability-testing-101/

Conducting User Testing (CO3)

- When it comes to running user tests, there are certain steps you need to follow—regardless of your chosen method:

1. Set an objective
2. Build your prototype
3. Create a plan
4. Recruit participants
5. Gather all the necessary equipment
6. Document your findings

https://careerfoundry.com/en/blog/ux-design/user-testing-design-thinking/

Types of Usability Testing (CO3)

- **Qualitative vs. Quantitative**

Qualitative usability testing focuses on collecting insights, findings, and anecdotes about how people use the product or service. Qualitative usability testing is best for discovering problems in the user experience. This form of usability testing is more common than quantitative usability testing.

Quantitative usability testing focuses on collecting metrics that describe the user experience. Two of the metrics most commonly collected in quantitative usability testing are task success and time on task. Quantitative usability testing is best for collecting benchmarks.

Types of Usability Testing (CO3)

Remote vs. In-Person Testing

- Remote usability tests are popular because they often require less time and money than in-person studies. There are two types of remote usability testing: moderated and unmoderated.

- Remote moderated usability tests work very similarly to in-person studies. The facilitator still interacts with the participant and asks her to perform tasks. However, the facilitator and participant are in different physical locations. Usually, moderated tests can be performed using screen-sharing software like Skype or GoToMeeting.

- Remote unmoderated remote usability tests do not have the same facilitator–participant interaction as an in-person or moderated tests. The researcher uses a dedicated online remote-testing tool to set up written tasks for the participant. Then, the participant completes those tasks alone on her own time. The testing tool delivers the task instructions and any follow-up questions. After the participant completes her test, the researcher receives a recording of the session, along with metrics like task success.

Testing as Hypothesis (CO3)

- Hypothesis testing is a formal procedure for investigating our ideas about the world using statistics. It is most often used by scientists to test specific predictions, called hypotheses, that arise from theories.

- It is an analysis tool that tests assumptions and determines how likely something is within a given standard of accuracy.

- Hypothesis testing provides a way to verify whether the results of an experiment are valid.

- A null hypothesis and an alternative hypothesis are set up before performing the hypothesis testing.

Steps in Hypothesis Testing (CO3)

1. State your research hypothesis as a null hypothesis and alternate hypothesis (Ho) and (Ha or H1).

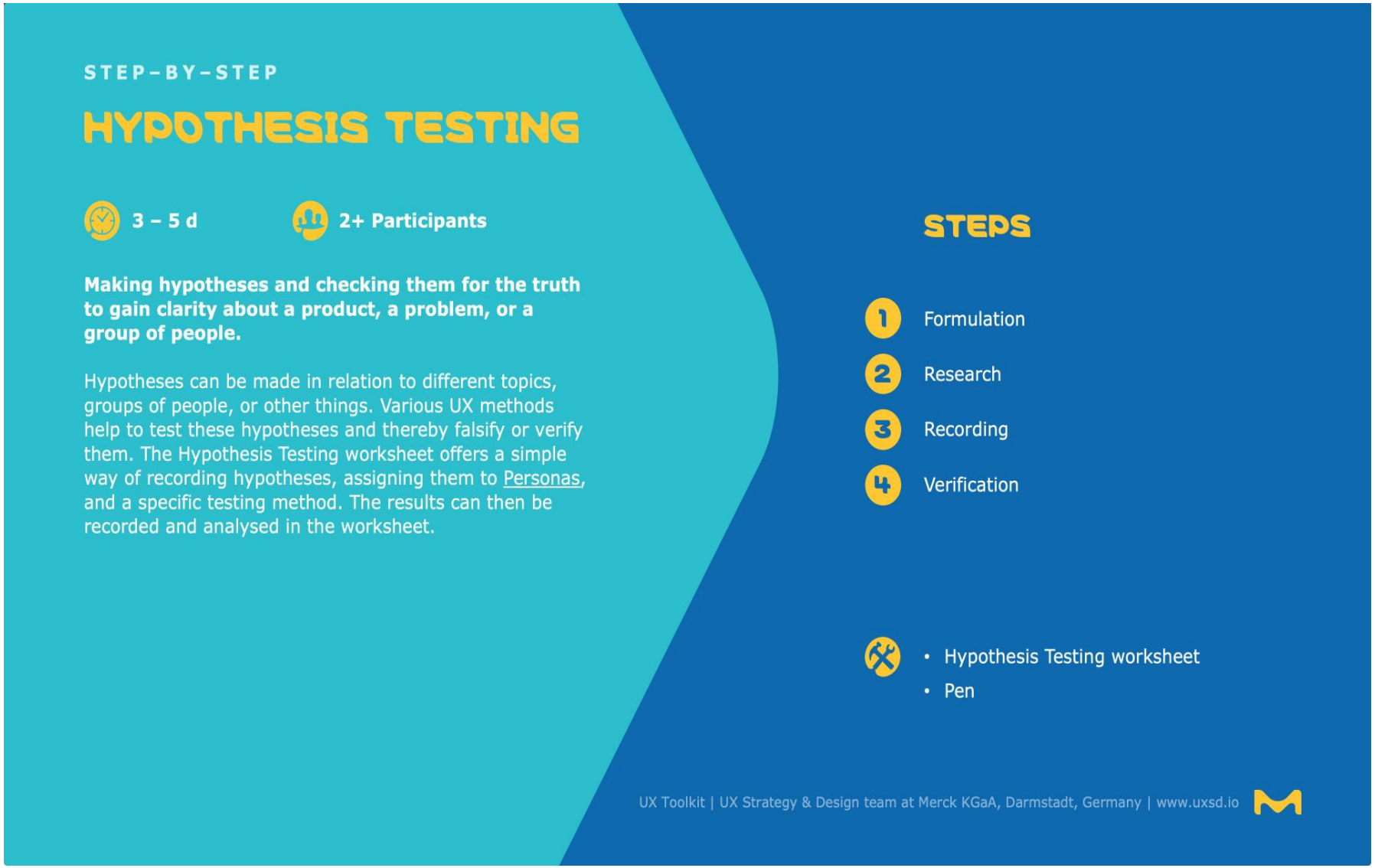
2. Collect data in a way designed to test the hypothesis.

3. Perform an appropriate statistical test.

4. Decide whether to reject or fail to reject your null hypothesis.

5. Present the findings in your results and discussion section.

Steps in Hypothesis Testing (CO3)



Steps in Hypothesis Testing (CO3)

HYPOTHESIS TESTING

STEP 1 OF 4

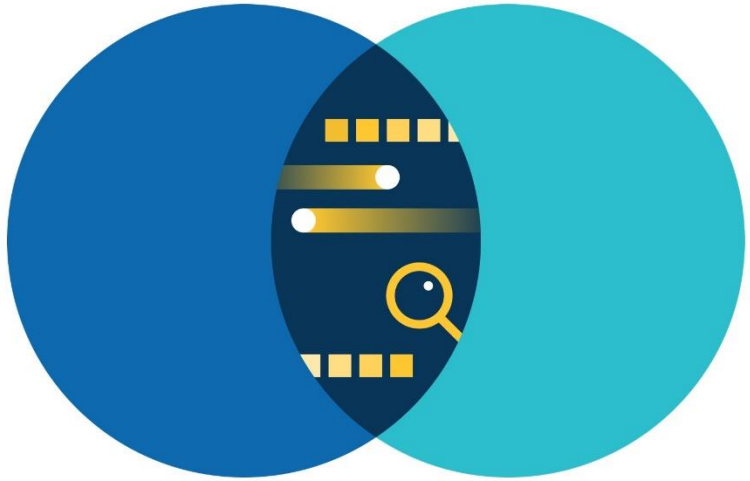
FORMULATION

30 – 60 min

Formulate hypotheses as a foundation for this method. The hypotheses can be statements of stakeholders or users, a research outcome or even a possible Future Trend.

For this step you will need

- Hypothesis Testing worksheet
- Pen



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Steps in Hypothesis Testing (CO3)

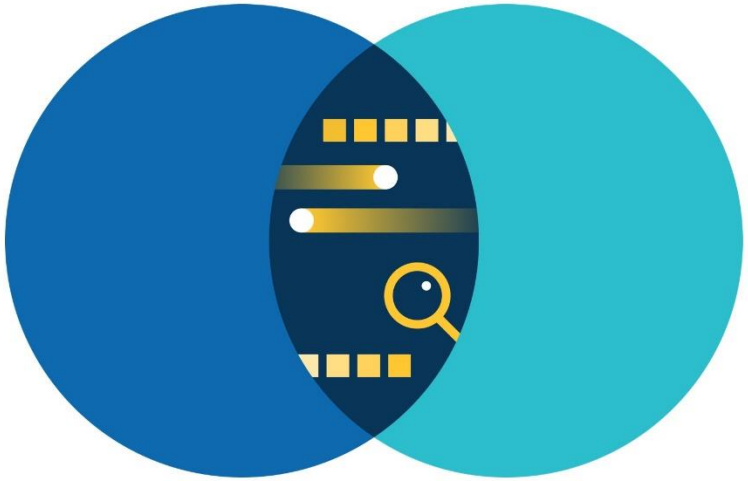
HYPOTHESIS TESTING

STEP 2 OF 4

RESEARCH

1 – 2 d

Conduct research to question the hypothesis. Depending on the size of the target group, it makes sense to conduct Surveys or perform User Interviews. Remember not to ask suggestive questions.



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Steps in Hypothesis Testing (CO3)

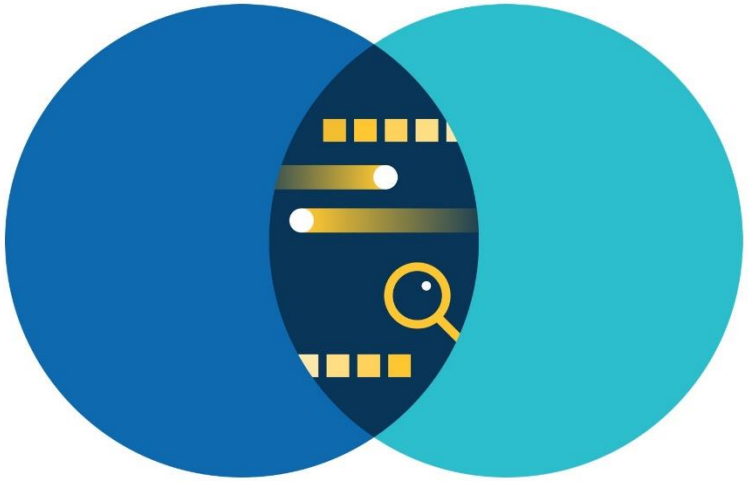
HYPOTHESIS TESTING

STEP 3 OF 4

RECORDING

1 – 2 d

Record the results of your research. Interpret the recordings to match them with your hypotheses.



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Steps in Hypothesis Testing (CO3)

HYPOTHESIS TESTING

STEP 4 OF 4

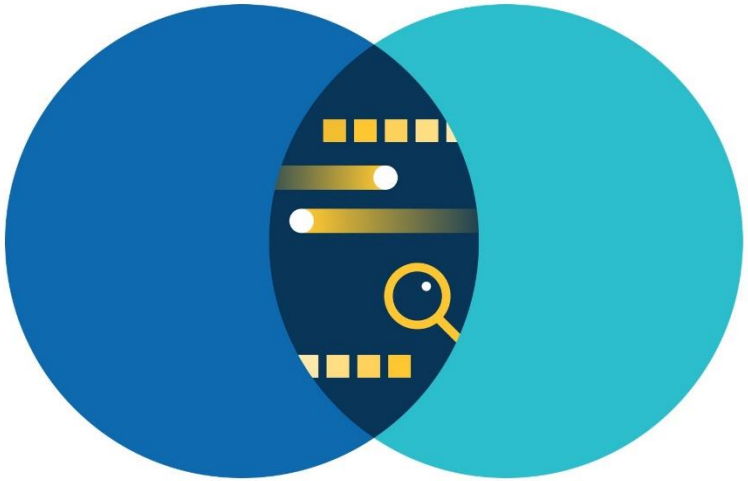
VERIFICATION

1 d

Verify or disprove the hypothesis if possible. In case, you were not able to do so, the hypothesis might be phrased incorrectly. In either case you should continue to research around your hypotheses to bring them into a more detailed shape and be aware of changes in the future.

For this step you will need

- Hypothesis Testing worksheet
- Pen



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Observation and Shadowing Methods (CO3)

- Qualitative research is based on the observation and collection of non-numerical insights. The results describe the frustrations and desires of the users. This information will help us to constantly improve the product.

- To really understand what people do, we can't just ask them, we have to observe them. The observation provides accurate information about people, their tasks, habits, their needs and pain points.

- Observation means looking, listening, and thinking carefully about what we're seeing and hearing, so we can find out specific details.

- Observation helps us to find out extensive information about mood, body language, pace, interaction style, user habits, and timing and gives us a full picture user's point of view.
- The goal is to observe participants' natural behavior, without interrupting them or affecting their behavior.

- Regular observation sessions provide useful feedback to us which can be used for constant product improvement. They also help us to create and adjust personas.

Shadowing (CO3)

- Shadowing is, by its very nature, a qualitative research technique.
- Shadowing is observing the users in their environment where they work every day. It will show their pinpoints, product strengths, and problems, user communication with the product, struggles, physical and mental obstacles, …
- The key principle of shadowing is that the researcher acts as an observer only.
- In shadowing, the researcher follows participants around as they perform their daily activities. Sometimes quietly and sometimes interacts with the user.
- They are not to interfere with the research subject (participant) as that interference might change the way that the subject behaves in any given circumstance.
- It is too time consuming and resource intensive to be conducted on a massive scale and thus it's important to realize that it is best used to provide the basis for further quantitative research which offers statistically significant insights rather than being used as the end point of research.
- Thus shadowing is somewhat different from customer observational interviewing practices in which the researcher fully interacts with the participant while they observe them in their usual environment.

Guerrilla Interviews (CO3)

Guerrilla Interviews: meet people at public spaces such as parks and coffee shops and engage in quick conversations related to your research topic

What is guerrilla research/interview? (CO3)

- Guerrilla research is a quick, low-cost way of learning about and understanding experiences.

- It is usually done in public spaces and does not require a rigorous recruitment process, although it does require its own type of planning.

- Especially when facing pushback from stakeholders regarding the cost of user research or the benefits of user-centered design, guerrilla research can prove the value of research with minimal investment.

- Its inherent flexibility—online or offline, one day or one week, sessions as short as ten minutes—makes it an easier sell than a full research program.

Advantages of guerrilla Testing/interview (CO3)

- You can move fast.
- If you have no research budget, it's better than no testing at all.
- It's super cheap compared to more formal research.
- It can be a great way to validate/invalidate early assumptions.
- It can be an excellent way to identify areas to do deeper research on.
- It can work well with small-iterations type work.

Disadvantages of guerrilla Testing/interview (CO3)

•Not a lot of time spent with participants, so you're restricted to a small part of the flow.

•It may be more difficult to convince stakeholders about the insights you generate.

•The people you chat with may not be the types of people that will use your product.

The three Fs of guerrilla user research (CO3)

1. Focused: Set intentions and know your scope

As with most projects that are centered in design-thinking, focus on the problem that you want to solve rather than the solution you plan to develop. The more specific your problem is, the more impactful guerrilla research can be. Focusing your scope is the true game-changer that allows you to cut back on costs and time spent. Narrowing your scope doesn't have to impact the quality of insights you get.

2. Fast: Make feedback collection easy and simple

Oftentimes, when we throw around the term 'guerrilla' research, we envision a model, known as **street intercepts**, where you approach strangers and collect live feedback. This approach has long existed in the user researcher's toolkit. But what if your company has neither a physical product to offer nor the resources to send a team out into the public?

3. Frugal: Save money as a way to be a team player

Making the case for a UX design and user research-specific budget can be challenging at some companies. But what better way to advocate for the impact of user research than by running a low-cost user research experiment?

User Feedback (CO3)

- User feedback is any information collected from users or customers about their experience using your product or service.
- This user feedback can be either proactive, that is, you solicit it from users, or reactive, meaning that your users sent you the feedback unprompted.
- Feedback can come from many different channels and in many different forms.
- Types of feedback include things like bug reports, support requests or suggestions about how your product can be improved.
- Channels include live chat, in product surveys, email, phone and more.
- After collecting feedback, it's then used by various teams to improve the user or customer experience.

Types of User Feedback (CO3)

Proactive

Proactive feedback is feedback that you actively solicit from your users or customers. This can include things like the NPS surveys that we're all familiar with (more on those below). Or more specific questions focused on aspects of your product experience, such as onboarding. Generally proactive feedback is designed to help you understand a specific aspect of your users' experience.

Reactive

Reactive user feedback is that which comes unsolicited from your users or customers. Some of the most common examples are things like bug reports or support requests. For example, a user tells you that they keep getting logged out of your product. Or the new feature that you just released isn't working the way that it's supposed to. Because this type of feedback is often an indication that your user is having a negative experience or is even unable to use your product, you should respond and resolve it quickly.

Ongoing

This is an important category of feedback that many companies don't handle particularly well. In addition to the categories above, you can collect ongoing feedback by making it easy for your users to provide constructive input on the product experience at any time. By providing feedback channels right inside your product experience, you show your users that you really value their input. For example, provide an easy way for users to make feature requests while using your app.

How to Collect User Feedback (CO3)

- Run in-app surveys
- Customer Effort Score
- Customer Happiness Index
- Conduct customer interviews
- Net Promoter Score (NPS) surveys
- Collect other in-app feedback
- Offer live chat

Reporting Usability Test Results (CO3)

Reporting Usability Test Results

When reporting results from a usability test, you should focus primarily on your findings and recommendations that are differentiated by levels of severity. Include the pertinent information from the test plan and present just enough detail so that the method is identifiable. Keep the sections short, use tables to display the metrics, and use visual examples to demonstrate problem areas, when possible.

Data Analyses

At the end of usability testing you will have collected several types of data depending on the metrics you identified in your test plan. When analyzing the data you've collected, read through the notes carefully looking for patterns and be sure to add a description of each of the problems. Looks for trends and keep a count of problems that occurred across participants.

Software validation tools (CO3)

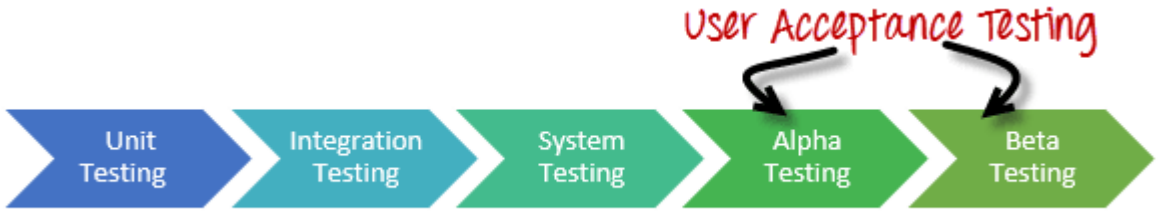
- Design thinking is a human-centered approach to innovation, focused on gaining empathy about customer's problems and challenges in order to create solutions or products and services that satisfy their wants and needs.
- This framework or process requires different techniques and tools than your overall "business as usual" and product design efforts.
- To help with this approach, there are many software tools and applications that you can utilize during the design thinking process.
- Here are some popular software tools for design thinking that you can evaluate yourself to see if digital tools can help you.

Software validation tools (CO3)

1. Sprintbase
2. Miro
3. MURAL
4. Shape by IDEO
5. Smaply
6. Digsite
7. Batterii
8. Stormboard
9. Google Docs, Sheets, & Slides
10. Conceptboard
11. Google Jamboard
12. Shape
13. FigJam

Alpha Testing (CO3)

- **Alpha Testing** is a type of acceptance testing; performed to identify all possible issues and bugs before releasing the final product to the end users.
- Alpha testing is carried out by the testers who are internal employees of the organization.
- The main goal is to identify the tasks that a typical user might perform and test them.
- To put it as simple as possible, this kind of testing is called alpha only because it is done early on, near the end of the development of the software, and before beta testing.
- The main focus of alpha testing is to simulate real users by using a black box and white box techniques.



Beta Testing (CO3)

- Beta Testing is performed by “real users” of the software application in “real environment” and it can be considered as a form of external User Acceptance Testing.
- It is the final test before shipping a product to the customers. Direct feedback from customers is a major advantage of Beta Testing.

- This testing helps to test products in customer’s environment.

- Beta version of the software is released to a limited number of end-users of the product to obtain feedback on the product quality.

- Beta testing reduces product failure risks and provides increased quality of the product through customer validation.

Differences between alpha & beta testing (CO3)

•Alpha Testing is performed by the Testers within the organization whereas Beta Testing is performed by the end users.

•Alpha Testing is performed at Developer's site whereas Beta Testing is performed at Client's location.

•Reliability and Security testing are not performed in-depth in Alpha Testing while Reliability, Security and Robustness are checked during Beta Testing.

•Alpha Testing involves both Whitebox and Blackbox testing whereas Beta Testing mainly involves Blackbox testing.

•Alpha Testing requires testing environment while Beta Testing doesn't require testing environment.

•Alpha Testing requires long execution cycle whereas Beta Testing requires only few weeks of execution.

•Critical issues and bugs are addressed and fixed immediately in Alpha Testing whereas issues and bugs are collected from the end users and further implemented in Beta Testing.

Taguchi methods (CO3)

- Taguchi methods are statistical methods, sometimes called robust design methods, developed by Genichi Taguchi to improve the quality of manufactured goods, and more recently also applied to engineering, biotechnology, marketing and advertising.

- Professional statisticians have welcomed the goals and improvements brought about by Taguchi methods,[editorializing] particularly by Taguchi's development of designs for studying variation, but have criticized the inefficiency of some of Taguchi's proposals.[5][citation needed]

- Taguchi's work includes three principal contributions to statistics:

- A specific loss function
- The philosophy of off-line quality control; and
- Innovations in the design of experiments.

Defect classification (CO3)

- Defect classification is a vital step for determining if goods should pass or fail inspection. And considering the quantity and severity of different types of defects found helps you make an informed shipping decision.

- A professional inspection company often has established standards for classifying various types of defects for a particular product type. But it's ultimately your responsibility as the buyer to decide your tolerance for different defects, often using a system like AQL

- Knowing what types of defects you are dealing with allows you to make informed decisions about every product batch.

- Depending on the severity and number of the defects, you may accept the items or return them to be reworked.

- Alternatively, you could destroy the products and ask the manufacturer to produce replacements.

Classification of Defects in Quality Control (CO3)

The three main types of defects: minor, major, and critical.

Minor Defects

- If a defect is classified as minor, that means the item does not comply fully with the product specs but is still usable.
- The defect does not affect the product's marketability and functionality and only has a minimal impact on its appearance.
- A minor defect is typically so tiny and insignificant that the end-user might not even notice it.
- And even if they do, they are not likely to return the item, request a refund, or decide against buying it.

Types of User Feedback (CO3)

Major Defects

- Major defects are a different beast altogether.
- They are considered much more serious than minor ones.
- Not only do major defects cause items to depart significantly from the buyer specs, but they could also negatively impact the appearance, performance, and/or function of the faulty products.
- What's more, consumers are highly likely to notice major defects *and* return the item, ask for a refund, and even submit a complaint to your customer service department.

Critical Defects

- Critical effects are called "critical" for a reason.
- They are the most serious defect type and typically render the product completely unusable.
- Oftentimes, items with critical defects can also be a health and safety hazard to your staff, your customers, and even third parties.
- And if your products are a risk to people's health, that means *you* are at risk of potential lawsuits and product recalls — to say nothing of the consequences for your brand's reputation.

Random Sampling (CO3)

- **Random sampling** is a method of choosing a sample of observations from a population to make assumptions about the population.
- It is also called **probability sampling**.
- The counterpart of this sampling is Non-probability sampling or Non-random sampling.
-
- The primary types of this sampling are simple random sampling, stratified sampling, cluster sampling, and multistage sampling.
- In the **sampling methods**, samples which are not arbitrary are typically called convenience samples.

Type of Random Sampling (CO3)

The random sampling method uses some manner of a random choice. In this method, all the suitable individuals have the possibility of choosing the sample from the whole sample space. It is a time consuming and expensive method. The advantage of using probability sampling is that it ensures the sample that should represent the population. There are four major types of this sampling method, they are:

1. Simple Random Sampling
2. Systematic Sampling
3. Stratified Sampling
4. Clustered Sampling

Simple random sampling vs. Systematic Random Sampling
(CO3)

Simple random sampling

- In this sampling method, each item in the population has an equal and likely possibility of getting selected in the sample (for example, each member in a group is marked with a specific number).
- Since the selection of item completely depends on the possibility, therefore this method is called "**Method of chance Selection"**. Also, the sample size is large, and the item is selected randomly. Thus it is known as "**Representative Sampling"**.

Systematic Random Sampling

- In this method, the items are chosen from the destination population by choosing the random selecting point and picking the other methods after a fixed sample period.
- It is equal to the ratio of the total population size and the required population size.

Stratified random sampling vs Clustered Sampling (CO3)

Stratified Random Sampling

- In this sampling method, a population is divided into subgroups to obtain a simple random sample from each group and complete the sampling process (for example, number of girls in a class of 50 strength).
- These small groups are called **strata**. The small group is created based on a few features in the population.
- After dividing the population into smaller groups, the researcher randomly selects the sample.

Clustered Sampling

- Cluster sampling is similar to stratified sampling, besides the population is divided into a large number of subgroups (for example, hundreds of thousands of strata or subgroups).
- After that, some of these subgroups are chosen at random and simple random samples are then gathered within these subgroups. These subgroups are known as **clusters**.
- It is basically utilized to lessen the cost of data compilation.