
RESEARCH METHODS 1

Lesson 1

1. INTRODUCTION TO BUSSINESS RESEARCH

1.1 WHAT IS RESEARCH?

- Research is the process of finding solutions to a problem after a thorough study and analysis of the situational factors.
- 5 steps:
 - Identify the (origin of the) problem
 - Insight into the relevant factors
 - What information to collect and how
 - Deduce the correct conclusions
 - Implement the right corrective actions

1.2 WHAT IS BUSINESS RESEARCH?

- Business research can be described as a systematic and organised effort to investigate a specific problem encountered in a work setting, which needs a solution.
- Good research = a *systematic, organised, data-based, critical, objective* inquiry or investigation
- Why business research?
 - Managers with knowledge of research have an advantage over those without
 - Managers have to understand, predict and control events that are dysfunctional within the organization
 - Ex: a newly developed product may not be “taking off”
- Being knowledgeable about research and research methods helps professional managers to:
 - Identify and effectively solve minor problems in the work setting;
 - Know how to discriminate good from bad research;
 - Appreciate and be constantly aware of the multiple influences and multiple effects of factors impinging on a situation;
 - Take calculated risks in decision making, knowing full well the probabilities associated with the different possible outcomes;
 - Prevent possible invested interests from exercising their influence in a situation;
 - Relate to hired researchers and consultants more effectively;
 - Combine experience with scientific knowledge while making decisions

1.3 TYPES OF BUSINESS RESEARCH

- Types of business research
 - Based on the purpose
 - Theory-focused versus practice-focused
 - Scientific problem versus management problem

- Basic/fundamental business research versus applied business research
 - Basic/fundamental research = Research to generate knowledge about problems, processes, events, phenomena that occur in and around organisations.
 - Applied research = Research to solve problems faced by the manager in the work setting, demanding a timely solution.
- Based on the methodology
 - Quantitative versus qualitative

Quantitative	Qualitative
- structured data	- unstructured data
- statistical analysis	- summary
- objective conclusions	- subjective conclusions
- surveys, experiments,...	- interviews, focus groups, observations
 - Numerical versus non-numerical

2. A SCIENTIFIC APPROACH

2.1 THE HALLMARKS OF SCIENTIFIC RESEARCH

- Purposiveness
 - A clear purpose/goal
- Rigor
 - Good methodological design
- Testability
 - Testable hypothesis
- Replicability
 - Clarity about the whole study: methodology, results, ...
- Precision & confidence
 - Results must resemble reality
- Objectivity
 - Conclusions must be made based on data, not based on what seems logical
- Generalizability
 - Basic research, applied research is also good but not generalizable so based on applied research we cannot make broad conclusions
- Parsimony = simplicity
 - It is better to find simple conclusions than to make them unnecessarily complex
- It is important to be able to judge research statements / conclusions
 - Both in the media as in academic journals
- Only possible when there is openness and transparency about the study: **how did the study reach certain conclusions?** = a crucial characteristic of science!!

2.2 THE SCIENTIFIC RESEARCH CYCLE

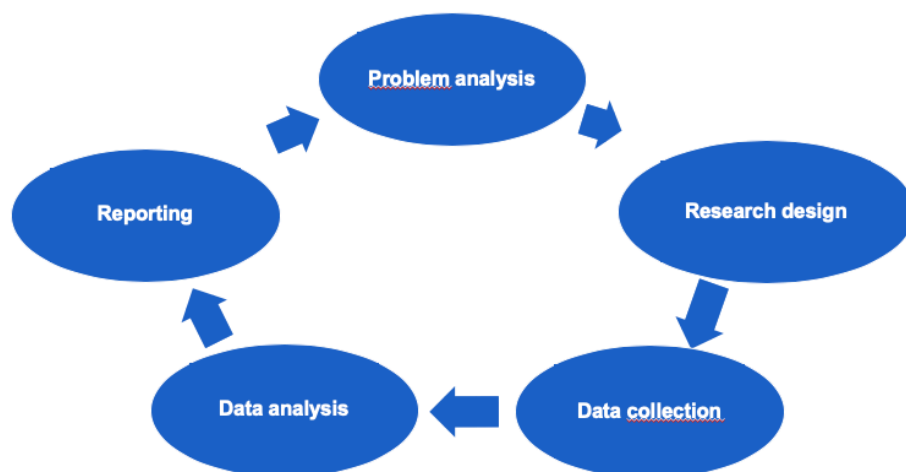
- Theory = a system of ideas intended to describe and explain something
 - What, how, why questions...

- To predict?
- Characteristics of a theory:
 - “A theoretical framework represents beliefs on **how certain phenomena are related to each other** (a model) and provides an explanation of why researchers believe that these variables are associated with each other (a theory).
 - Empirically testable
- **Empirical research** = based on observed and measured phenomena and derives knowledge from actual experience



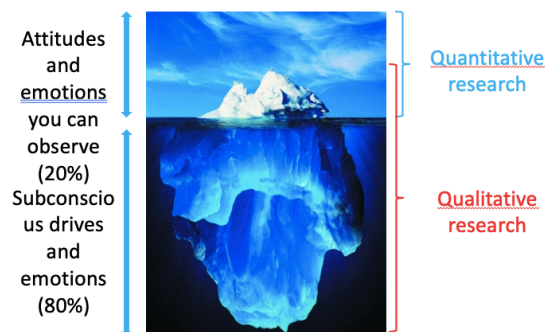
- Theory > empiricism = deduction
 - < 'deduce'
 - From general to specific
 - Linked to hypotheses / Theory testing
 - Hypothetico-deductive method
- Empiricism > theory = induction
 - From specific to general
 - Theory building

2.3 STEPS IN A SCIENTIFIC RESEARCH PROCESS



3. WHAT IS QUALITATIVE RESEARCH?

- Qualitative research = explorative, discovery oriented, iterative, question and theory generating, subjective, case oriented, not generalisable, generating non-numerical data, ...
- The nature of qualitative research can be found in the different steps of a research process
 - The problem analysis
 - Qualitative research focuses on understanding **complex issues** and **social processes**, and NOT on providing insight into prevalence rates or frequencies of certain phenomena.
 - The daily reality of participants is central to the research question.
 - Iceberg principle:



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- The research design
 - Is **flexible**
 - Focused on research in a natural setting
 - Focused on a holistic understanding of an issue (and its context)
- The data collection
 - Many data collection methods, e.g. individual interviews, focus groups, Delphi technique
 - Sometimes several methods in one study
 - The use of the methods is flexible
 - Data collection is often a long and intense process with much contact with the 'field'
 - Data collection and analysis are combined
- The data analysis
 - Analysis on text files instead of numbers
 - Aim: to provide in depth understanding of certain (complex) issues
- The report
 - The participants are sometimes involved in the reviewing of the study results.
 - The report also tries to give insight into the context of the study.
 - The influence of researcher(s) is also described in the report given the more subjective character of this type of research.

Lesson 2

PROBLEM ANALYSIS

1. IDENTIFICATION OF THE PROBLEM AREA

- Business research = a systematic and organized effort to investigate a specific problem encountered in a work setting, which needs a solution

STEP 1

- Research typically begins with a problem BUT
 - This is not always a serious issue → when changed it helps to improve the situation
- A problem = any situation where a gap exists between the actual and desired ideal states
- The reason(s) behind the focus on one problem:
 - Academic reasons: to understand an issue (fundamental research)
 - Practical reasons: to solve an issue/create a change in practice (applied research)
 - Personal reasons

STEP 2

- Transform the broad problem into a feasible topic for research by making it more specific and precise
 - Be selective, you can't investigate everything
- It is important to find the real problem, do not be mistaken by the causes or consequences of the problem
- Avoid formulating the research topic too broadly

STEP 3

- Select a perspective (academic/fundamental vs non-academic/applied) from which to investigate the problem
 - Selection of an academic perspective → can use a wide range of literature to help solve the problem

2. PRELIMINARY INFORMATION GATHERING

- Nature of information gathered:
 - Via qualitative research or literature review
 - 2 categories of information
 - Background info on the organization and its environment (contextual factors)
 - The origin and history of the company
 - Size (employees, assets,...)
 - Charter - purpose and ideology
 - Location – regional, national, or other
 - Resources – human and other
 - Interdependent relationships with other institutions and the external environment
 - Financial position during the previous 5-10 years, and relevant financial data
 - Information on structural factors (role and positions in the organization, communication channels, control systems)
 - Information on the management philosophy
 - Literature – the body of knowledge available to you
 - Create a careful (critical) overview of the literature

Mostly in secondary
(already existing) data

Primary data you have
to collect yourself →
surveys, interviews,...

- Identify relevant concepts, models, conceptual frameworks, approaches etc.
 - Structure your research on work already done – build on the foundation of existing knowledge
 - Develop the problem statement with precision and clarity
- There is often alternation between literature and (re)defining the problem statement
- These categories are both in fundamental and applied business research

3. PROBLEM STATEMENT

- The problem statement entails 2 essential aspects
 - Research objective(s)
 - Purposiveness → **why** is a study being done
 - Purpose of fundamental >< applied business research
 - Research question(s)
 - Specify **what** you want to learn about the topic
 - RQs guide and structure the process of collecting and analyzing information to help you attain the purpose of your study (= the translation of the problem of the organization into a specific need for information)

3.1 RESEARCH OBJECTIVES

- 3 types
 - Explorative
 - When not much is known about the issue/situation/research topic
 - Often relies on secondary research and/or qualitative research
 - Flexible in nature but typically not generalizable to the population
 - Often combined with descriptive and causal research (as preliminary research)
 - Descriptive
 - To describe the characteristics of people, events or situations
 - Quantitative and qualitative research possible
 - Quantitative: collection of quantitative data or correlational research between variables
 - Qualitative: to create an in-depth understanding of issues
 - These studies may help the researcher to
 - Understand the characteristics of a group in a given situation
 - Think systematically about aspects in a given situation
 - Offer ideas for further probe and research
 - Help making certain (simple) decision
 - Causal
 - Test whether or not one variable causes another to change
 - Mostly qualitative research (experiments)
 - Following conditions should be met:
 - Independent and dependent variable should covary
 - Independent variable should proceed the dependent variable
 - No other factor should be a possible cause of the change in the dependent variable

- A logical explanation (theory) is needed to explain the relationship
- For whom is the research conducted?
 - Scientific community
 - Scientific originality: what is new/innovative
 - Elaboration of an existing theory or method
 - Applying existing theories or methods in a new area
 - Policy-makers
 - Sometimes sponsor/clients
 - Practical relevance (applied business research)
 - Research focusing on a specific problem in practice
- Relevant research?
 - Managerial perspective (applied business research)
 - A specific problem in the work setting
 - 'something' that can be improved according to the manager
 - Academic perspective (fundamental research)
 - Nothing is known about the topic
 - Much is known but knowledge is scattered and not integrated
 - Much is known but results are (partly) contradictory
 - Established relationships do not hold in certain situations
- In the research objective, the theme and aim of the research became clear, it was stated for whom the research is aimed and relevant

3.2 RESEARCH QUESTION

- Translate the research objective in a specific research question that needs to be answered at the end of the study
- Characteristics of a good research question
 - Clear
 - Understandable
 - Unambiguous
 - Focused
 - Problem addressed from an academic perspective
 - Limited number of questions
- A research question can and might evolve throughout the research
- Critical evaluation of your research question
 - Theoretical evaluation
 - You have to make choices, you cannot investigate everything nor in a perfect way
 - Important to indicate the theoretical and practical limitations/boundaries of your research question
 - Practical evaluation
 - Testability = the extent in which a research question can and may lead to research
 - Possibility to study with empirical methods?
 - Ethical dimension of the empirical research?
 - Feasibility
 - Time
 - Money

- Accessibility and willingness to participate from research objects/participants

3.3 PROBLEM STATEMENT

- 3 key criteria to assess the quality of a problem statement
 - Relevance
 - Feasibility
 - Interesting (to you?)
- A good problem statement answers the questions “why?” and “what?”
- The next step to further theoretically frame and elaborate on the research question via literature
 - It is best to combine your problem statement and literature review, from a raw idea via literature review to a better problem statement
- The problem statement can include the following elements
 - Background of the study
 - Public or scientific relevance
 - Research objective(s)
 - Research question(s)
 - Conceptual framework (to define central concepts of the research question and link them to each other; sometimes later in the process)
 - Short overview of limitations of the research methods used (more extensively in method and discussion section of a manuscript)

4. LITERATURE REVIEW

- A literature review is a selection/collection of available documents (both published and unpublished) on the research topic, which contain information, ideas, data and evidence
- In both inductive and deductive research, a literature review will help to develop a conceptual or theoretical background
 - A conceptual or theoretical background discusses the literature pertinent to a specific issue or problem
- Relevant findings, methodological issues, and major conclusions of earlier and more recent work are put forward and controversial issues (if any) are addressed
- Why a literature review?
 - The research effort is positioned relative to existing knowledge and builds on this knowledge
 - One does not run the risk of “reinventing the wheel”, wasting effort on trying to rediscover something that is already known
 - The background is available to enable you to look at a problem from a specific angle, to shape your thinking, and to spark useful insight on the topic of your research
 - A clearer idea emerges as to what variables will be important to consider, why they are considered important, and how they should be investigated to solve the problem
 - The researcher is able to introduce relevant terminology and to provide guiding definitions of the concepts in the theoretical framework
- Data sources
 - Textbooks (consider if up to date, otherwise maybe irrelevant)
 - Articles

- With peer review → academic journals
 - Without peer review → professional journals
 - Popular press / newspapers
 - Systematic reviews / meta-analyses
- Reports
- Conference proceedings
- Internet
- Academic journals
 - Quality of articles can be measured through a higher IF and peer review
 - Impact factor
 - The IF is a measure of the frequency with which the average article in a journal has been cited in a particular year, it is used to measure the importance or rank of a journal by calculating the times its articles are cited
 - A journal IF is the average number of times that articles published in a specific journal in the previous 2 years were cited in a particular year
 - Calculation:

Number of citations received by the journal in 2011 to articles published in 2009 and 2010 eg. 400

Divided by

Number of citable articles published by the journal in 2009/10 eg. 40

The journal's impact factor equals 10
 - Only journals indexed in the Web of Science have an impact factor
 - A journal has only 1 IF but may be listed in more than 1 category
 - A journal IF should be looked at in comparison to other journals in the same category
 - IF vary across disciplines
 - A 5 year IF may also be used in some disciplines
- Internet
 - Scientific (peer-reviewed) articles can be found via Web of Science and/or Google Scholar
 - Sometimes you can find the full text online, sometimes you will have to search for it in a library
 - Search strategies
 - To determine keywords and search terms
 - Start with keywords from your problem statement
 - Also think about
 - Synonyms
 - Single and plural verbs
 - Different spelling
 - Abbreviations
 - More broad or narrow search terms, or related terms
 - Boolean operators (simple words used as conjunctions for keywords)
 - AND, OR, NOT,...
 - Wildcard and truncation
 - *carbon → all words including carbon: hydrocarbon, polycarbonate,...
 - Colo\$r → 0 or 1 character; color, colour
 - En?oblast → 1 character only; endoblast, entoblast
 - These can be useful when doubts about correct spelling
 - Near operators

- NEAR/x → terms occur with a user-specified number of words within the same field, if no number is specified, the system defaults to 15
- Fields to search
 - Topic, author, author identifiers, group author, publication name, publication year, address
- Snowball technique vs. searching for citations
 - Snowball technique: find paper → look at cited references → find related papers there
 - Citation searching: find paper → look at where it was cited → find related papers
- Ethical issues/ reference to sources
 - 2 pitfalls to be aware of:
 - Purposely misrepresenting the work of other authors: i.e. their viewpoints, ideas, models, findings, conclusions, interpretations, and so on;
 - Plagiarism = the use of another's original words, arguments, or ideas as though they were your own, even if this is done in good faith, out of carelessness, or out of ignorance
 - Both of these are fraud
 - Quotations
 - Should be given exactly as they appear in the source
 - The original wording, punctuation, spelling, and italics must be preserved, even if they are erroneous
 - Use double quotation marks
 - Include the page number(s) as well as the reference
 - Paraphrasing
 - A restatement of the meaning of a text or passage using other (your own) words
 - Include a reference too

5. THEORETICAL FRAMEWORK

- Using the information
 - When the relevant information/data is collected, the next step starts → the development of the theoretical framework
 - A theoretical framework is the basis of the hypothetico-deductive method as it is the basis of the hypotheses you will develop (crucial in deductive, theory-testing research)
 - A theoretical framework represents your beliefs on how certain phenomena (or variables or concepts) are related to each other (a model) and an explanation of why you believe that these variables are associated with each other (a theory)
 - The process of building a theoretical framework includes:
 - Introducing definitions of the concepts or variables in your model
 - Developing a conceptual model that provides a descriptive representation of your theory
 - Coming up with a theory that provides an explanation for relationships between the variables in your model
 - A conceptual/theoretical framework helps to structure your writing
- Types of variables
 - A variable is anything that can take on differing or varying values

- Dependent variable
- Independent variable (predictor)
- Moderator
 - Influences the relationship between dependent and independent variable
- Mediator
 - Explains how the independent variable influences the dependent variable
- Think of a good example to explain all 4 types of variables!

LESSON 6

QUANTITATIVE VERSUS QUALITATIVE RESEARCH

- What are the barriers that starting spin-off companies perceive?
 - → qualitative
- How are decisions made by a management board?
 - → qualitative
- Does a management board with more expertise lead to a more high-performing company?
 - → quantitative

THE RESEARCH DESIGN

The research design is a blueprint for the collection, measurement and analysis of the data based on the research questions of the study.

1. Purpose of the study (explorative/descriptive/causal)
2. Research strategies
3. Location/study setting
4. Extent of the researcher interference
5. Time horizon
6. Unit of analysis
7. Sample design
8. Measurements
9. Data analysis

2. RESEARCH STRATEGIES

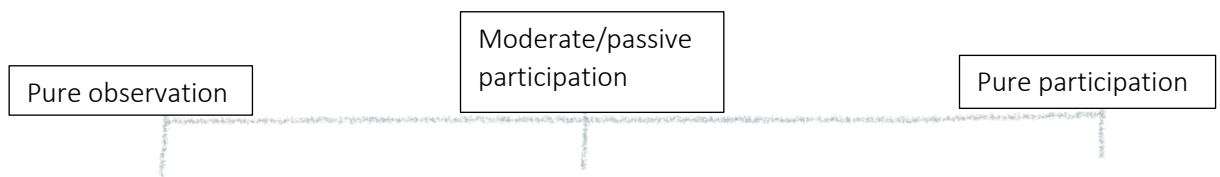
- When deciding on a research strategy, you will already have a very clear idea of what you will be doing in the study, it will already define quite some aspects regarding the research design
- The qualitative survey
 - A survey is a system for collecting information from or about people to describe, compare, or explain their knowledge, attitudes, behavior, choices, etc
 - A survey is much broader than a questionnaire on paper, it can definitely be a part of qualitative research
 - Very popular in business research – allow both qualitative and quantitative studies for different research purposes (explorative/descriptive/causal)
 - 2 subtypes (qualitative)
 - In depth interviews, one on one
 - Can be face to face or via internet or the telephone
 - You discuss a certain topic with one person and you really go in depth

- The interviewer switches between collecting information from the survey and analyzing it, there are usually several rounds of the survey and questions will get more specific as the interview progresses
- Focus groups
 - Usually 6-10 people
 - Selection of different people based on the topic you are researching, not a random sample more of a convenient sample
 - Focus groups are short planned conversations, that aim to collect a lot of data over a short time, groups dynamics are also taken into account, this is often used as pre-research, combined with a qualitative survey
- For both of these types the idea is that you collect data and immediately analyze it, while analyzing you come to new insights that you can then immediately use to collect more data to elaborate on these insights and get more information
- These are often used for explorative purposes
- Qualitative vs. quantitative survey

Qualitative	Quantitative
How? Why? (meaning)	How many? How much? (prevalence)
Convenience sample	Random sample
Open questions	Closed questions
More inductive (theory building)	Statistical procedures

- More limitations for quantitative surveys, you cannot dig deeper or go in depth
 - Random sampling allows for us to have representative group, convenience sampling does not, if you have a representative group, you can generalize statements
 - Deductive is theory testing, you start with a theory and test it by gathering data (both quantitative and qualitative), for inductive (quantitative usually) you start with nothing and look at data to build a theory (example = Darwin and his animals, he started by looking at data he measured and then built up a theory)
- Participant observation (ethnographic observation)
 - First example of this were the Hawthorne Studies
 - Industrial workers were often considered an extension of the machinery, they were often less important than their output
 - Working conditions were difficult, supervision autocratic and benefits non-existent for most workers
 - Even in better factories, only production mattered
 - Western Electric, Hawthorne was considered a progressive place to work because pension plan, vacations and sickness disability pay
 - Experiment to see how lighting would affect productivity
 - No matter how much lighting was increased/decreased, productivity increased
 - Industry's first inquiry into worker's attitude
 - Followed by the first employee interview program
 - Generally output increased wherever these tests were tried

- Regard a business organization as a social system, people are important in business, they recognized that organizations should think about attitudes of employees in relation to output of the organization
- Hawthorne effect = just by observing participants you can increase productivity without manipulating anything
- Key characteristic of participant observation: the researcher gathers data by participating in the daily life of the group or organization under study
 - This enables the researcher to learn about the activities of the group under study in a natural setting from an insider's point of view through observing and participating in these activities
- 2 key aspects: participation and observation, these can both vary
 - Pure observation → no participation, the researcher only observes, they are not directly involved in any of the actions of the group under study
 - Pure participation → going native, the researcher becomes very involved so that all objectivity and research interest can be lost
 - Moderate/passive participation is most common, the researcher has an intermediate position between being a complete insider and a complete outsider
 - The researcher observes everything but will still maintain a certain distance so that he is not completely consumed by it and can still remain objective, kind of a passive witness/bystander
 - Eg: observations conducted in service consumption settings such as in a lecture room, theater, waiting room



- Complete participation (concealed) vs. Active participation (unconcealed)
 - Concealed: someone becomes a complete part of the group, he really becomes part of the group but doesn't say he's there to do research, this is deliberately deceiving member of the group and thus seen as unethical by many, this is rare
 - Unconcealed: the researcher also becomes part of the group but does mention he is doing research, he/she engages in activities and puts them into practice, he gets a better understanding of those practices
- Essential characteristics
 - Research object described as a "setting" (group, organization, specific social behavior)
 - Time-consuming (accepted member of the group + much data)
 - If for example the researcher is researching a certain behavior, he needs to wait for this behavior to occur, he is not allowed to intervene in the situation in any way
 - You cannot manipulate the research/ the behavior
 - Researcher concealed or unconcealed (advantages vs. problems)
 - Researcher can decide for himself if he wants to let the population know he is studying them, a disadvantage of this is worse quality of data, however not revealing his intentions may cause ethical problems (deceiving)

- With current GDPR regulation, it is getting a lot harder to do concealed research bc you have to get permission from everyone
- Participate → part of the normal daily life of the thing you are investigating
- Interaction
 - Participating = interacting, this will be necessary
- Flexible technique
 - The researcher can decide at any time within the research to change or add a specific method, to add another perspective or to change the focus of the research
- Combination of several data collection methods (not only observation)
 - Often other techniques such as interviews are also used
- Case study
 - Case study = an empirical inquiry that investigates a contemporary phenomenon within its real-life context using multiple methods of data collection
 - Case studies focus on collecting information about a specific object, event or activity, such as particular business unit or organization
 - It really looks into a specific case to learn more about that situation
 - In case studies, the case is the individual, the group, the organization, the event, or the situation the researcher is interested in
 - → It's very broad
 - To obtain a clear picture of the problem, multiple methods of data collection are used
 - The idea is to learn as much as possible about the case and to obtain a clear picture of the problem

3. STUDY SETTING

- Problem statement (including research objective) is your guide to select your setting
 - Natural environment (non-contrived settings) vs. artificial (contrived) settings
 - Depending on the kind of research we want to do (see problem statement) we will make use of 1 of these 2
 - Eg correlations/associations between 2 aspects → natural environment (case study), cause and effect (causal purpose) in a natural environment = field experiment, cause and effect can also be tested in an artificial experiment → lab experiments
 - A field study (a non-contrived setting with minimal researcher interference)
 - A field experiment (a non-contrived setting with researcher interference to a moderate extent)
 - A lab experiment (a contrived setting with researcher interference to an excessive degree)
 - The accessibility of the setting also has an impact
 - Visible or not visible
 - A setting is visible when a lot of general knowledge can easily be found about it
 - A setting is semi-visible when there is information available, however in order to access this you need to know where to look, the information is available but not widely spread and accessible to everyone

- Settings that are not visible are completely hidden from outsiders, often by insiders
- Open or closed settings
 - A setting is open when it is easy to access, when a lot of effort has to be put into accessing the setting it is closed
 - A lot of settings are dominated by interpersonal relations
- When describing a setting in terms of visibility, openness and power it shows how accessible the setting is, this is however not a deciding factor in the choice of setting, it is something to take into account when designing the research

4. RESEACHER INTERFERENCE

- Researcher interference = how much or how little a researcher is manipulating/interfering with the natural environment
- This often follows directly out of the research objective,
 - If the objective is to describe and register correlations, the research will take place in a natural environment with minimal researcher interference
- 3 types
 - Minimal
 - Eg: just looking at correlation and leaving everything like it was before
 - Moderate
 - Excessive
 - Not only influencing factors for cause and effect but also taking people/situations out of their regular setting and really interfering as much as you can for the wanted results

5. TIME HORIZON

- 2 types
 - Cross-sectional
 - Data has to be collected at one moment, these studies are also called one-shot studies
 - Longitudinal
 - Data has to be collected at certain moments over time, in this case we want to make conclusions about the evolution of the subject

6. UNIT OF ANALYSIS

- The unit of analysis refers to the level of aggregation of the collected data during the data analysis → how will the data be used?
 - How will you look at the data when you start analysis?
- As individuals, pairs/dyads, groups, organizations, cultures, ...
 - Eg: individuals → you collect 5 people's data and look at every individual's data separately
 - Eg: dyads/pairs → you collect 3 couples' individual data and look at the dynamics between each couple, even though you have individual data of every member of a couple, you will observe it as a pair
 - Eg: groups → analyzing the behavior of a group of friends

7. SAMPLE DESIGN

- Quantitative sample
 - Random sampling
 - Generalizability of the data to the population so sample should be representative
- Qualitative sample
 - These will be much smaller than quantitative samples because they are not meant to represent a whole population
 - Purposive sampling (targeted samples)
 - Selection criteria
 - Selection of specific types of people who can provide the desired information
- Sampling process (creating the sample)
 - 1. Define the population
 - The population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate
 - Eg: if Ghent university wants to know how much their students consume alcohol, then all the students of Ghent university in all faculties will form the population
 - 2. Determine the sampling frame
 - The sampling frame is a (physical) representation of all the elements (=single members) in the population from which the sample is drawn
 - Eg: all students of Ghent university → university registry containing a listing of all the students
 - Sometimes available, sometimes not
 - When available but not complete → coverage error
 - Eg coverage error: the registry may still include students that dropped out this year, the sampling frame will not exactly match the population you want to sample
 - The researcher can be aware of this and choose to ignore it because the difference is insignificant and there is a lot of effort required to take this into account
 - Sometimes the coverage error may be significant so that the researcher will have to solve it by for example redefining the target population or creating a change in the sampling frame
 - It is also possible that what you are investigating is already too targeted so that it is difficult to select your participants from this larger sampling frame
 - Eg: students with a disability, the registry may not contain this information, so you will have to create your own sampling frame which will be closely linked with determining the sampling design
 - 3. Determine the sampling design
 - How will you select them and on what basis?
 - Convenience sample
 - Collection of information from members of the population who are conveniently available to provide it
 - Eg: you are interested in a new product in a supermarket, you stand there and let people try it and ask their opinion about the product

- Often during the exploratory phase
- Best way to quickly get basic information
- Purposive sampling (judgmental)
 - Selecting your sample with a clear purpose (all purposive sampling)
 - The choice of subjects who are most advantageously placed or in the best position to provide the information required
 - Used when a limited number or category of people have the information that is sought
 - Ex: what does it take for women managers to make it to the top
 - Very targeted
- Purposive sampling (quota)
 - To ensure that certain groups are adequately represented in the study through the assignment of a quota
 - Generally, the quota is fixed for each subgroup based on the total numbers of each group in the population
 - Eg: company with 60% blue collar and 40% white collar workers, you take this proportion into account to ensure that both groups are represented enough in your sample
- Theoretical sample
 - The process of data collection for generating a theory whereby the researcher jointly collects, codes, and analyses his data and decides what data to collect next and where to find them, in order to develop the theory as it emerges
 - Sampling process is entirely controlled by the emerging theory
 - You are generating a theory based on the data you already collected, and are further collecting data based on this theory
- Other purposive sampling
 - Typical case
 - Illustrates or highlights what is typical, normal, average
 - Used when there is not a lot of information yet
 - The case is specifically selected because it is not in any way atypical, extreme, deviant or intensely unusual
 - This strategy is often used when the units of analysis are large, as for example in studies of villages in developing countries
 - Selecting a typical village allows the research to illustrate the general process that occurs
 - This strategy is particularly useful if the research report will predominantly be read by people who are unfamiliar with the area of research
 - This is a good start, it will give you a first overview of the information
 - Heterogeneity or maximum variation
 - Purposefully picking a wide range of variation on dimensions of interest... documents unique or diverse variations that have emerged in adapting to different conditions, identifies important common patterns that cut across variations
 - To obtain information about the significance of various circumstances for processes and outcome

- You want to pick out the extreme cases
- Homogeneous
 - Opposite of heterogeneous
 - Focuses, reduces variation, simplifies analysis, facilitates group interviewing
 - You want the group to have similar characteristics
 - Simplifies the focus and analysis
- Critical case
 - Permits logical generalization and maximum application of information to other cases because if it's true for this one case, it's likely to be true for all other cases
 - Eg: the way Anuna De Wever and Greta Thunberg created their youth movement for climate change, some aspects of this start of this movement that they did are crucial, some aspects that they didn't do are irrelevant, if someone else wanted to create a similar youth movement the dos and donts could be important for them too
 - To test a hypothesis by choosing the case that permits logical deductions of the type, "if this is valid for this case, then it should apply to all cases." Or "if it is not valid for this case, it is unlikely to be valid for any other cases"
- Extreme or deviant case
 - Learning from highly unusual manifestations of the phenomenon of interest, such as outstanding success/notable failures, top of the class/dropouts, exotic events, crises
 - To obtain information on unusual cases, which can be especially 'problematic' or especially 'good'
 - Examining people who are doing it differently
 - Boundaries of your research question
- Snowball sampling (friend of a friend)
 - Initially contact a few potential respondents and then ask them whether they know of anybody with the same characteristics that you are looking for in your research
 - Eg: vegetarians, people with a particular disability
- 4. (determine the appropriate sample size)
 - Only for quantitative sampling
- 5. Execute the sampling process

DATA COLLECTION

DATA SOURCES FOR QUALITATIVE RESEARCH

- Documents
 - Can be very broad
 - Reports, letters, transcripts of interviews, agendas, invitations

- Databases
 - More in quantitative
- Physical objects
 - Ideas in an idea box, graffiti
- Visual materials
 - Eg bike along interviews → the visual material of these interviews
 - Pictures of the office
- The internet
 - Has a lot of materials
 - Think about quality!!!

INTERVIEWING

- “someone asks a question and someone gives an answer”
- Types of qualitative interviews
 - Unstructured interview
 - High flexibility
 - Eg open question: can you tell me about your experience of visiting a store, the interview will continue from there, the interviewer will possibly ask some follow-up questions
 - Semi-structured interview
 - the ‘qualitative’ interview
 - Semi-flexible
 - Some structure and pre-determined questions, however there is flexibility so that you can ask follow-up questions and go into more depth
 - Structured interview
 - Checklist, oral survey,...
 - Low flexibility
 - Only pre-determined questions, no room for follow-up

Type of Interview	advantages	disadvantages
Interviews in general	<ul style="list-style-type: none"> • Opinionated answers • Can be recorded for further used • Allows for a lot of qualitative data. 	<ul style="list-style-type: none"> • Not generalizable • Note taking may miss vital information.
Unstructured interviews	<ul style="list-style-type: none"> • Allows for more information and opinions • Going off on tangents may lead to you getting vital information you didn't consider asking. 	<ul style="list-style-type: none"> • Less valid • Not all information you may have needed to be answered is. • Hard to compare if different questions are asked.
Semi-structured interviews	<ul style="list-style-type: none"> • Important questions wont be forgotten. • You may come across more question to ask in further interviews. 	<ul style="list-style-type: none"> • Irrelevant data.
Structured interviews	<ul style="list-style-type: none"> • You collect only the information you require. • The risk of the interviewee, or even the interviewer is minimised. 	<ul style="list-style-type: none"> • More quantitative • No as valid.

- Semi-structured interview
 - Topic list
 - Interview guide (≈ scenario of the conversation)
 - Very detailed
 - A good interview guide incorporates many aspects
 - It's a description of how the interview will look like
 - Introduction
 - Purpose of the interview
 - Confidentiality
 - Informed consent
 - Demographic questionnaire
 - Gender, age, socio-economic status,...
 - Recording the interview
 - Ask for consent
 - Interview route
 - Structure in the questions of the interview
 - Not all necessary questions but key for a good interview → to create a good atmosphere, to build trust and connection, to reach the “essence” of the interview
 - By using opening and introductory questions, you make people feel more at ease, they feel comfortable answering your questions contrary to if you would just go straight into the key questions
 - It will be helpful for people to open up so that they answer your key question as good as possible
- Order of the questions
 - Opening question
 - Very general question, to get to know each other, for the participant to be more acquainted with the interview, with the surrounding, with the fact that they are being recorded
 - They can introduce themselves or talk about hobbies or something else slightly related to the research
 - Introductory question
 - Linked to the research topic but more general, asking for a general opinion on the research topic
 - Opening the real interview
 - Not too difficult so that people can easily give an answer
 - “how would you define...”, “what does ... mean to you”
 - Transition question
 - Switch from the more general talking to focus
 - Asking for experiences from the person to the topic
 - “where did you hear about...”, “do you think it is needed, why or why not”
 - Create a link to make it more relevant for the people you are interviewing
 - Important to focus on experiences, behaviors, not on attitudes, feelings or motivations
 - Simpler to more complicated questions (trend for the whole interview)
 - Key questions
 - All the previous questions build up to these
 - These are the most important for the data analysis

- Usually a few (2-5), these can have sub questions (probing)
- Every question can take up 10-15 minutes of the discussion
- Closing question
 - Very relevant
 - Will make up big part of data for data analysis
 - 3 types
 - Overview questions → assessing how relevant the factors are that have been mentioned
 - You said this and that, for you what is the most relevant, what should we take into account for sure, what are the most relevant statements that you made?
 - Summary questions → make a summary of the things they have told you, you try to put in the most relevant aspects from your research
 - Is it correct if I understood this, did I miss something?
 - To ensure you really understood everything
 - End questions
 - Did you forget something, is there something we didn't talk about that you would like to mention?
 - Important to form these last questions during the interview
- Example of the different types of questions:

Opening question	'What is your background and working experience?'
Introductory question	'What is your view on the economic situation of the past year?'
Transition question	'What does resilience mean to you?'
Key questions	<ul style="list-style-type: none"> • 'What strengths can stimulate resilience in Suriname?' • 'What are typical strengths among the Creole/Maroon/Hindustani/Javanese population in Suriname?'
Closing question	'How resilient are the Surinamese people?'

- Projective methods
 - Another technique than interviews
 - Certain ideas and thoughts that cannot be easily verbalized or that remain at the unconscious level in the respondents' mind can usually be brought to the surface via motivational research
 - Things people don't realize they are thinking, things people don't want to tell you can both become clear this way
 - This can be for various reasons, they get very emotional, it is not conform with the norm, ...
 - These are barriers why people don't want to discuss certain thoughts
 - Examples:
 - Association techniques (word association, sentence completion)
 - Thematic apperception tests (TAT)
 - Inkblot tests
 - ...
 - ! these are only for researchers trained in motivational research

- Researchers need to be experienced with this because you are deducting thoughts, feelings, etc that are not always easy so researchers have to be skilled in order to be able to deduct the right conclusions
 - Projective techniques are an alternative to questions
 - They allow respondents to express themselves in a different way
 - Word and picture association, completion tasks (sentence, cartoon,...), analogy, role playing, personification, indirect questions, storytelling
- Association techniques:
 - Principle: the respondent responds quickly to associate a word or finishes a sentence and thus gives insight into true attitudes and feelings
 - Everyone has certain associations in their mind, these are based on feelings, belief, attitudes
 - Respondents react immediately
 - Because of this they have no time to think about it which will uncover the associations they make
 - Best to train respondents
 - Different types:
 - Free association
 - “What do you think when I say the word ...”
 - Word association
 - “I read a word and you say the first word you think about”
 - Sentence completion
 - “University is...”
- Personification techniques:
 - The respondent is asked to describe a product, brand, object as if it is a person
 - This way the brand/product/object can find out the perception people actually have about them
- Laddering
 - An in-depth interviewing technique where the line of questioning proceeds from product characteristics to user characteristics, this technique prompts the respondent to think about the product's attributes and his/her goals
 - Focus groups
 - It is meant to identify an emotional benefit of a product/service
 - People can't do this straight away so 3 questions:
 - 1: what product feature do you like most?
 - 2: what's the benefit of that feature?
 - 3: how does that benefit make you feel?
 - The result of laddering can easily be used in the marketing and will definitely speak to many consumers
- Sort methods
 - Sort several things such as logos, photos, cards
 - Cards → sort into certain groups
 - Photos → eg: which famous person would you choose as the face for your charity action
 - This way you try to find out certain beliefs and ideas in people's mind
- Inkblot tests (Rorschach tests) & thematic apperception test (TAT)
 - Used to dig deeper into our own personalities and reveal some of our more serious conditions
 - Projective tests reveal what we think beyond the conscious mind

- Inkblot test
 - Originally created to diagnose schizophrenia
 - Therapist shows inkblot → what did the patient see? How long did it take them?
 - The initial ones were created with no real intention, this made it a lot harder to interpret the answers of the patients
 - The ones used today have been created with more intention
 - 45 cards
 - 22 elements for therapists to consider
 - Time to respond
 - Amount of sexual thinking
 - Any bizarre thinking
 - ...
 - Without training it will be hard to make the right conclusions from the inkblot test
- TAT
 - Therapists pick a selection of black and white cards with scenes on it, they then show the card to the patient and ask them to create a story around the card
 - Patients then must talk about the backstory, the feelings of each character and then come up with a resolution
 - This can reveal a lot about what the patient is thinking
 - Currently also used in the business world to evaluate career aptitude and potential skills
 - Hard to complete online
 - No algorithm yet
 - Infinite amount of answers
 - Different scoring methods have been created
- Third person technique
 - Respondent is asked to talk about a third person who is similar to him/her
 - We can generally easily talk about others and express our feelings towards them, these become clear within the third person technique
 - Easier to talk about attitudes and feelings
- Interview pitfalls: questions
 - Dichotomous questions (yes/no)
 - These kinds of questions will not give us a lot of information
 - Create open questions for extensive detailed answers
 - Why questions (as main questions)
 - Implies reason, rationality, causality however:
 - Sometimes respondents did not think issues through beforehand
 - Sometimes behavior is unintentional
 - Sometimes it can have many causes
 - These may make things very complex and give the participant a bad feeling
 - Can use this for probing
 - Double questions
 - Questions that entail more than one information-element so it is unclear to the respondent what question to answer
 - Eg: how did professors and students react to the implementation of the corona guidelines at the university?

- Respondent is unsure whether to talk about students or professors
 - Non-neutral/biased questions
 - Empathy and emotion
 - Avoid words with emotional value
 - Eg: do you think the government should spend more on the military to avoid the **catastrophic invasion** of the country?
 - Steering answers (assuming things)
 - Eg: you have been talking about your difficult financial situation, I **assume** you will not go on a holiday this summer?
 - Giving many examples on how to answer the question will also steer the conversation
 - Interviewing
 - An interview is more than the interview questions
 - Clues of paralinguistics (the way how you ask your questions)
 - Volume of voice
 - Speed of voice
 - Low speed of voice gives the participant the chance to really understand the question
 - Intonation
 - Allow to highlight certain things within the questions → light intonation for irrelevant aspects, heavy intonation for important things
 - Tone
 - Pronunciation
 - Articulation
 - Pause
 - Punctuation marks
 - Body language
 - How you look, your body language will influence your interview
 - Make sure to keep eye contact
 - Pay attention to how you sit
 - Ensure that your participant really feels you are paying attention to what they are saying
 - This will motivate them to tell you more
- Probing
 - Evaluation → was the provide answer complete/sufficient?
 - If no, get more/ the right information through probing
 - Probing = techniques to receive additional responses and answers from the respondent
 - 3 functions:
 - The respondent learns more about what kind of depth/details the interviewer wants
 - Helps to get more accurate information when an answer is unclear or incomplete
 - Shows to the respondent that the interviewer is listening
 - 2 kinds:
 - Direct probing
 - = verbal manner to probing

- Repeat the question
- Summarize
- Non-direct explicit probing → they will usually repeat what they have been saying or explain a bit more elaborately, non-directive
 - It is not clear to me...
 - What do you mean?
 - Can you provide a bit more detail about that?
- Direct explicit probing → more directive, ask about certain aspects rather than asking to clarify everything
 - How did that happen?
 - When was that?
 - How often does that happen?
 - And then?
- Indirect probing
 - “parroting”
 - Repeating part of the answer, this encourages to talk more about this aspect of the story
 - Functional silence
 - Wait and give time for them to think about it, they will usually talk more because people feel like silence should be avoided
 - Non-verbal listening
 - Leaning towards them, nodding, humming, eye contact,...
 - Further encourage the participant to give more extensive answers
 - Nodding (this signifies that the person understood the story)
 - Humming as alternative to nodding when doing an interview over the phone bc they cannot see your face/physical posture

LESSON 8

OBSERVATION

- We observe on a daily basis but when we do not pay attention, we don't remember or don't see important aspects
- Observing = one of the most fundamental human instincts
- Scientific observation is not easy
 - Observing is such a basic activity that we often miss things
 - Eg: driving a car, you miss many of the things happening around you
 - Intense process
 - Tunnel view → we miss the bigger picture because we are so focused
- What to observe?
 - In general: aim or purpose of the study
 - 3 consecutive processes in observation:
 - Descriptive observation = open to everything, focus on all different aspects
 - Focused observation = more focused on specific aspects & searching for patterns
 - Selective observation = searching for differences/ variation in patterns
- Descriptive observation
 - The researcher is open to everything that is going on

- Data are collected to describe the setting, the subjects, and the events that are taking place
- Collected data provides the basis for the development of a set of concepts, a theory or a conceptual framework
 - Collect as much data as possible
- Using descriptive questions (broad and general)
 - Why is this happening, what is happening, who is involved in all of this
- Dimensions on which descriptive data might be collected
 - Space: lay-out of the physical setting
 - Eg: factory floor lay-out
 - Objects: physical elements
 - Eg: office equipment
 - Actors: relevant details of the people involved
 - Feelings, emotions, activities, actions, and goals of the actors
 - Events
 - Eg: meetings
 - Time or time sequence of events, feelings, actions, etc
- Descriptive observation matrix
 - Line in the middle is where you will start, this is the most basic information you are gathering
 - The matrix is already used to create linkages between dimensions
 - Eg: creating a link between space and event
- Focused observation
 - Focused observation emphasizes observation (often supported by interviews) in which the researcher will concentrate on particular types of feelings, emotions, actions, activities, and/or events and look for emerging themes
 - Using structural questions to gain knowledge on the relationship between different aspects:
 - Cause-consequence
 - X is the result of Y
 - Means-to-an-end
 - X is done to reach Y
 - Aim
 - X is a reason for Y
 - Characteristic
 - X is a characteristic of Y
 - ...
- Selective observation
 - In selective observation the researcher focuses on different types of actions, activities, or events and looks for regularities and variations from or exceptions to the emerging patterns
 - Using contrast questions to look into those variations and differences
- Field notes
 - The result of collecting documents → (digital version of) documents
 - The result of an interview → interview transcript
 - The result of observations and participations → field notes
 - Field notes include records of what is observed, records of informal conversations with the subjects under study, and journal notes that are kept on a daily basis

- Sometimes immediately, sometimes delayed notes/registration, important to not wait too long because the longer you wait the more you will forget
 - Memo style if not enough time (key words, short sentences)
 - When they have more time they will elaborate
- Field notes are a construction of the researcher – first step of data analysis
 - They should be observing and objective
- Characteristics of good field notes
 - Use exact quotes when possible
 - Paraphrasing may change the meaning, therefore quotes are important
 - Use pseudonyms to protect confidentiality
 - Describe activities in the order in which they occur
 - Otherwise more difficult and complex to analyze
 - Provide descriptions without inferring meaning
 - Not analyzing yet, must stay objective
 - Include relevant background information to situate the event
 - This can help you later on to understand things
 - Separate one's own thoughts and assumptions from what one actually observes
 - Record the date, time, place and name of the researcher on each set of notes

DATA ANALYSIS

- Qualitative research methods
 - Case study research
 - Record keeping
 - Process of observation
 - Ethnographic research
 - Focus groups
 - One-on-one interview
- Core idea for qualitative analysis for different methods:
 - Breaking down/segmenting (unfolding, unravelling, breaking up, separating, fragmenting,...)
 - Building up/reassembling (synthesizing, structuring, integrating, putting together, recombining, modelling)
- Qualitative analysis is the segmenting of data into relevant categories and the naming of these categories with codes while simultaneously generating the categories from the data. In the reassembling phase the categories are related to one another to generate theoretical understanding of the social phenomenon under study in terms of the research questions
- Qualitative data analysis
 - Qualitative data management = necessity before starting with the analysis
 - = classification & indexation → the collected data should be classified in a systematic manner and the researcher should be able to find the data easily
 - When you have lot of data it is really hard to find everything if you don't structure it well
 - Efficient data management via qualitative software (eg: Nvivo)
 - Types of materials
 - Raw data

- Partly processed data
 - Coded data
 - Coding schemes
 - Memos
 - Search functions
 - Data analysis schemes
 - Analysis history
 - Reports
 - Chronologic logs
- Use of qualitative software → Nvivo
- Getting acquainted with the material = first step to a more in-depth evaluation
 - If you do the interview + transcribe it you easily get acquainted with the material, however if you are part of a larger research team someone else may do both of these things so you will have to start with reading the interview and getting to know the materials
- 3 types/phases of coding → this is the process of “breaking down/segmenting” & “building up/reassembling”
 - Open coding
 - Axial coding
 - Selective coding
- Memos
 - Notes of relevant impressions, spontaneous ideas, evaluations, solutions and thoughts when they pop up and that cannot be forgotten (related to theory, methodology, ...)
 - When they pop up you have to put them down, otherwise you might forget
 - Link between thinking and doing (post-its)
 - Kind of project log – a chronological overview of decisions made and guided for future plans
 - It will capture all your ideas/thoughts
 - Guide for future plans
 - Can be used very widely
 - You can use these throughout the whole process
 - Memos can be related to theory, to methodology, to ethics
 - Eg methodology: after the 3rd interview you realize no one understands a certain question you are asking so you put a memo down to remind yourself to change this question
- Graphical representations
 - Graphical representations are common, data are presented in a systematic way
 - This is to help understanding
 - Drawing figures, flow charts, maps, decision trees, matrices, etc. is an excellent way for researchers to test what they know and do not yet know regarding their topic

PHASE 1: OPEN CODING

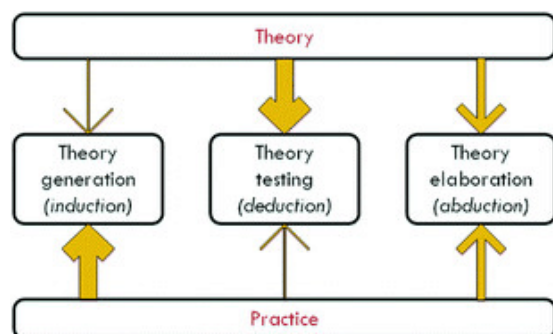
- = Segmenting
- Open coding is the process of breaking down, examining, comparing, conceptualizing and categorizing data
- Data are read very carefully and divided into fragments. The fragments are compared among each other, grouped into categories dealing with the same subject, and labelled with a code

- Fragments are like puzzle pieces
- Open coding usually takes place at the beginning of the research project
- Parts of the data that are not useful for the data will not get a code, open coding is already a first form of data filtering
- Little to no selection is made in terms of relevance of the research material, because it is still largely unpredictable what will be of value and what will not
- The core of open coding = to read and label
 - A code is a summarizing phrase for a piece of text which expresses the meaning of the fragment
 - Coding can be performed with paper and pencil, writing codes in the margin of a text, but coding can also be employed with the available computer programs
 - Open coding encourages a thematic approach since it forces the analyst to break up the text into pieces, to compare them and to assign them to groups that address the same theme
 - Result of open coding = list of codes/ coding scheme; when hierarchical structure = code tree
- Process of open coding
 - Read the whole document
 - Re-read the text by line and determine the beginning and end of a fragment
 - Determine why this fragment is a meaningful whole (text which belongs together and deals with mainly 1 subject)
 - Judge whether the fragment is relevant to the research
 - Make up an appropriate name for the fragment → code
 - Assign this code to the text fragment
 - Read the entire document and code all relevant fragments
 - Compare the different fragments, because it is likely that multiple fragments in a text address the same topic and they should therefore receive the same code
- Code list is a list of all the codes used in open coding, when a certain hierarchy changes the order it becomes a code tree
- Descriptive matrix with all the demographics of the participants
 - Will give insight into results/data
- Summary of open coding:
 - Purpose: exploration of the field, coverage of the field with codes, manageability of data files, familiarity with data
 - Phase: especially in the beginning of the research
 - Activities: reading and re-reading, asking questions about the data, comparing data with data, assigning codes to data fragments
 - Starting point: data
 - Results: list of codes, memos (tool that can be used throughout the different phases)
 - Validation: saturation, meaning that no new codes are needed to label fragments that appeared in the data up until now

PHASE 2: AXIAL CODING

- “A step up on the abstraction ladder”
 - Go through the codes again and try to reduce the number of codes
 - Reducing it by integrating different codes as well as eliminating synonyms
 - Step towards creating a theory

- A set of procedures whereby data are put back together in new ways after open coding, by making connections between categories
- The primary purpose of axial coding is to determine which elements in the research are the dominant ones and which are the less important ones
- The second purpose of axial coding is to reduce and reorganize the data set: synonyms are crossed out, redundant codes are removed and the best representative codes are selected
- When researchers employ axial coding, the reasoning moves predominantly from codes to data, whereas in open coding the reasoning moves in the opposite direction, from data to codes
 - Higher abstraction level, you stray further from the actual text and more towards the theory you are forming
- Axial coding involves the following steps:
 - Determine whether the codes developed thus far cover the data sufficiently and create new ones when the data provide incentives to do so
 - Check whether each fragment has been coded properly, or if it should be assigned a different code
 - Decide which code is most suitable if synonyms have been used to create 2 equal categories, and merge the categories
 - Look at the overview of fragments assigned to a certain code, consider their similarities and differences
 - Subdivide categories if necessary
 - Look for evidence for distinguishing main codes and sub-codes and assign the sub-codes to the main code
 - See whether a sufficiently detailed description of a category can be derived from the assigned fragments and if not, decide to collect new data to fill the gap
 - Keep thinking about the data and the coding
- Hierarchy in codes is established during axial coding → code trees, tables, ...
- Coding schemes



- Induction
 - Theory generation
 - Start from nothing
 - Deduction
 - Theory testing
 - Start from theory
 - Abduction
 - Theory elaboration
 - Start from very limited framework
- Summary of axial coding
 - Purpose: describe and delineate categories, determine relevance of categories, increase level of conceptual abstraction
 - Phase: halfway through
 - Activities: retrieve and compare fragments assigned to a certain code, define the category, determine relationships between main categories and subcategories, add, refine, and check preliminary ideas and conjectures with newly added data
 - Starting point: codes developed during open coding
 - Result: categories are described and distinctions are made between main categories and subcategories, memo file containing ideas and verified assertions
 - Validation: saturation, meaning that the definition and properties of each category are clear and that no further adjustment is needed

PHASE 3: SELECTIVE CODING

- Selective coding refers to looking for connections between the categories in order to make sense of what is happening in the field
- Selective coding is aimed at integrating the loose pieces of your earlier coding efforts and can be considered a logical step after the segmenting of the data
- Can also be called theoretical coding when the aim is to build up a theory
- Characteristics of the core category
 - Central, meaning that a lot of other categories are linked to it
 - Is the heart of the analysis: it indicates that the category accounts for a large portion of the variation in the behavior in the data
 - Appears frequently in the data; the indicators pointing to the core phenomenon must appear frequently
 - Is not easily saturated because there is so much material related to the core category
 - Can be formulated in a more abstract way, which can then result in the possible application to other fields of research
 - Facilitates analysis, makes the pieces of the puzzle fit together
- Summary of selective coding
 - Purpose: determining important categories and possibly a core category, formulating the theoretical model, reassembling of the data in order to answer the research question and realize the research aim
 - Phase: end phase of the research
 - Activities: determining core concept(s), determining relationships between the concepts and verifying them, writing, interpreting and positioning findings in the existing literature, thinking about the answers to the research questions and drawing conclusions
 - Starting point: all available research material
 - Result: description of the most important concepts, coherent story in which the relationships between concepts become apparent, answers to the research questions
 - Validation: saturation, meaning that new data collection provides data which are consistent with descriptions thus far and fit the theoretical model
- Pitfalls in the coding process
 - An unbalanced selection of the data: important information is missed and other information is weighed too heavily
 - Overemphasis of the first data or factual and dramatic events that made a lasting impression on the researcher
 - Selectivity, especially when the researcher is trying to validate the most important finding (and would rather not see it disproven)
 - Interpreting co-occurring events as connection or even causality
 - Having trouble with estimating the value of various sources of information
 - Drawing unwarranted conclusions based on the frequency with which events occur
 - Putting a hypothesis aside too easily based on certain information

LESSON 9

QUALITATIVE ANALYSIS: QUALITY OF THE RESEARCH

- Qualitative research is often criticized of not being good quality because
 - Small scales
 - Too subjective
 - No analysis, just quotes
 - Excuse for small scale research
- Quality criteria within quantitative research
 - Internal validity
 - Accuracy/preciseness of a measurement
 - Instruments measure what is intended to be measured
 - Eg: if you want to investigate wellbeing at work, you want to make sure that your questionnaire is really asking about wellbeing and that you can differentiate between the people who are feeling good and the ones who are not
 - External validity
 - Generalizability → can you generalize your findings to the population/other situations and setting
 - Reliability
 - Consistency and replicability of the results
 - When the same phenomenon is repeatedly measured using the same instrument, it should lead to the same outcomes, assuming that the phenomenon itself has not changed
 - Eg: test-retest for questionnaires
 - Reliability vs. validity
 - Validity → target
 - Reliability → consistency
- Translation of reliability and validity to the qualitative domain
 - Lincoln and Guba start from the concept of trustworthiness:



Aspect	Quantitative term	Qualitative term
Consistency	Reliability	Dependability
Truth value	Internal validity	Credibility
Applicability	External validity	Transferability

- Dependability/reliability
 - = coherence between methods and findings, and transparency and auditable research process
 - Findings will depend on methodological choices that have been made
 - To achieve dependability, researchers can ensure the research process is logical, traceable, and clearly documented
 - When readers examine the research process, they are better able to judge the dependability of the research
 - One way that a research study may demonstrate dependability is for its process to be audited
 - Provide a lot of insight into everything you have been doing
- Credibility/internal validity
 - = comprehensive, trustworthy and sensible explanations of the data
 - The credibility of a study is determined when co-researchers or readers are confronted with the experience, they can recognize it

- Eg: you as an interviewer have collected a lot of data and made some conclusions about it but you go back to the people you interviewed to check if they recognize themselves in the story and agree with what you wrote
 - Credibility addresses the “fit” between respondents’ views and the researcher’s representation of them
 - Techniques to address credibility: data collection & researcher triangulations, peer debriefing to provide an external check on the research process, member checking to test the findings and interpretations with the participants
 - Not only checking with the respondents but also other researchers → peer debriefing/external check
- Transferability/external validity
 - = relevance of concepts and findings to other settings
 - Transferability refers to the generalizability of inquiry
 - This is hard because no representative sample
 - Technique: providing thick descriptions (very detailed, on study methods and participants) so that those who seek to transfer the findings to their own setting can judge transferability
- Contributing to the quality of research:
 - 1. Methodological accountability
 - Researchers document accurately what they have done, how it was done, and why it was done
 - By including a proper account of all activities, others can judge whether the outcomes can be trusted, and they can repeat the whole investigation if desired
 - Explaining what you have done can give rise to comparative studies with other target groups, in other countries or in additional topics
 - Several techniques
 - Keeping a log or writing extensive methodological memos in which they document facts relevant to the research endeavor
 - Organizing an audit trail, in which an expert, often an outsider, tracks the analytic decisions that were made throughout the study. The expert functions as an accountant: their task is to control and check possible inquirer bias. The detailed examination of research procedures will reveal any unethical handling of information
 - 2. Reflection on the researcher’s role
 - The degree of the researcher’s involvement with the subjects under study depends on the role the researcher has chosen to take on in the field
 - This role is chosen because it fits best with what the researcher wants to achieve and with the opportunities in the field
 - It is important for researchers to be aware of their own experiences, opinions, feelings and ideas, and to be able to overcome any possible bias that may be caused by them
 - Describe the researcher’s personal characteristics or beliefs that can influence the study, possibilities are: age, gender, disposition, economic status, skin color, whether the researcher is divorced/married, has children,... and other beliefs, ideas, preferences that are relevant

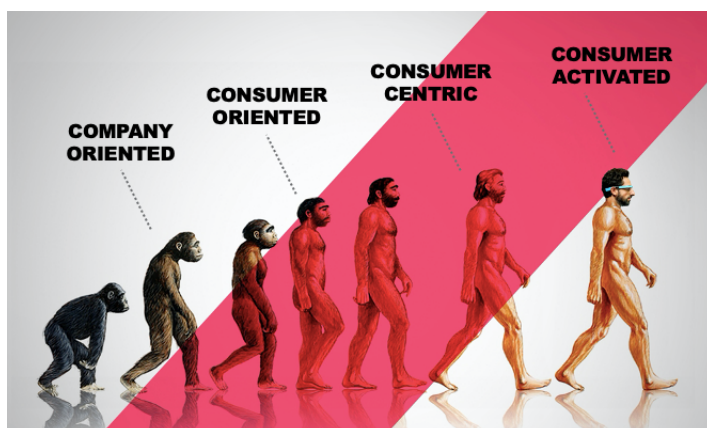
- Researchers cannot be value-free, but they can try to be non-judgmental in favor of the validity of the research and try to reflect on possible influences
- 3. Triangulation
 - Examination of a social phenomenon from different angles
 - More than one perspective
 - 4 types
 - Data triangulation: the use of more than 1 source of data
 - Eg: extra interviews, taking extra pictures,
 - Investigator triangulation: using multiple as opposed to one researcher
 - Look into the data with multiple investigators
 - Theory triangulation: more than one theory is applied to interpret the data
 - Look into specific phenomenon through different theories/ disciplines (disciplines mainly possible with interdisciplinary research) → good because more in depth analysis
 - Eg: social psychology, criminology and behavioral economics
 - Methodological triangulation: the use of more than one method
 - Eg: using quantitative and qualitative methods
- 4. Member check/validation (eg: peer debriefing)
 - Feedback to participants or member checks
 - It is assumed that when qualitative research succeeds to provide accurate descriptions and interpretations of human experiences, the people having that experience would immediately recognize them as their own
 - Presenting the findings to participants and asking them whether they recognize the findings and judge them as correct can be considered a procedure to verify the research
- 5. Checklists
 - Researchers, reviewers, readers and users of research want clarity with regard to quality and look to guidelines by which they can judge the quality of a study
 - Research is appraised by means of the report, therefore the required features of a report are inextricably bound with the evaluation criteria for research
 - In order to find out whether a certain study meets a number of essential criteria, several checklists have been generated, some of which are:
 - The critical review form
 - A quality framework for assessing research evidence
 - Criteria for the evaluation of research papers
 -

REPORT

- Integral parts of the report
 - Title and abstract
 - Main title (to grab attention) and a subtitle (to clarify the content)
 - Can also choose a more detailed and clear main title
 - Abstract = a brief account of the entire research study (100-150 words)
 - Can also be longer for articles

- Introduction & problem statement
 - Background
 - Public/practical relevance
 - Research objective (scientific relevance)
 - Research question(s)
 - Conceptual framework
 - Limitations of the research study/used methods
- Literature overview
 - Relevant findings from earlier research linked to the research question(s)
 - The aim is to situate the study within the state-of-art on the topic and indicate what this study will add
 - State-of-art = what is already known
- Method section
 - The design details such as sampling and data collection methods, as well as the nature and type of the study, the time horizon, the field setting, and the unit of analysis
 - The information provided should enable the reader to replicate the research
 - Think about the aspects that help with validity and reliability in qualitative research
- Results & discussion
 - In the results, the data are presented that were uncovered through the empirical research and subsequent data analysis
 - Also provide the collected material (eg: text fragments from interviews)
 - Include figures used during the data analysis (eg: code tree)
 - Only in the discussion, an explanation of the results and the implications of the results are given. Also, the recommendations for implementation should be provided as well as strengths and limitations of your study
- Conclusion

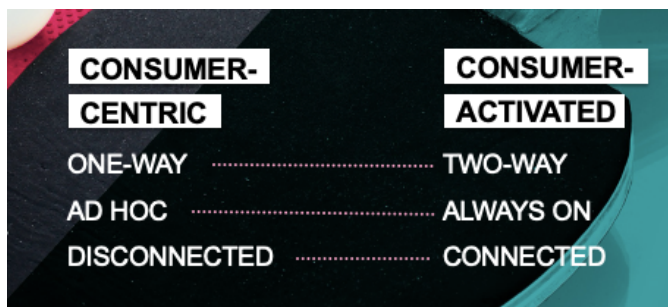
GUEST LECTURE



What is doing this to the way we should look at the role of consumers?

We tend to think that organizations go through 4 specific stages:

1. Company oriented: focus is dominantly on internal issues, making sure you can invent and deliver the product you are thinking of without taking into consideration the point of view of the user or customer
2. Consumer oriented: due to increased competition, the need is growing to take into consideration the perspective of the customer, building a service layer around the naked product to escape the commodity magnet
3. Consumer centric: the power of the consumer is becoming so dominant that the company believes rethinking everything from the perspective of the consumer is the only best option to go for. However, there are some drawbacks: (1) still treating consumers as lab rats, sustaining the duality of 2 worlds, and departing from a parent-child relationship '(e.g. think about the one-way mirror), (2) looking through the narrow lens of your own brand and/or product/service and (3) demotivating your own employees because the 'customer is always right'.
4. Consumer activated: (1) Consumers are employees and the other way round: complete equality in roles to play, with each party playing on its own strengths; (2) from passive listening to active collaboration and (3) thinking long-term and structural, building efficient and effective eco-systems.



We see 4 key differences between consumer-centric and consumer-activated organizations:

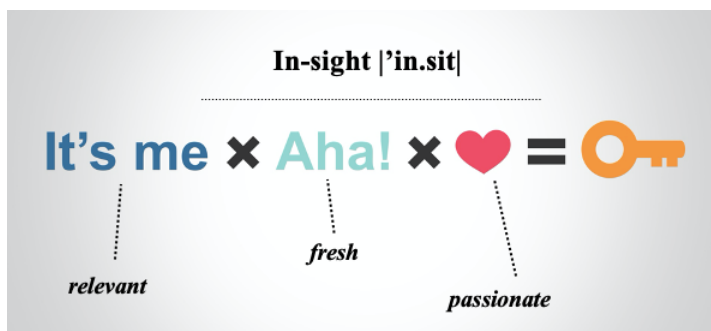
1. They conduct a **two-way dialogue**, really considering all stakeholders as **equal** in contributing value to the company.
2. They rely on **continuous consumer input** that goes **beyond specific ad hoc needs** that are determined solely by the company, building **customer eco-systems**.
3. They **connect people** to each other, having consumers **interact and work together** with employees.
4. They **unite all stakeholders** around the consumer, tearing down **internal silos**.

The aim is to offer more consumer relevant products/services

Advantages of online qualitative research over offline qualitative research:

1. More open and honest → it is anonymous, all the researchers know is age and region
 - a. The consumers contributing to the research can also only see a username, this will encourage them to be more honest, introverted people will speak more because they won't be afraid of saying something wrong anymore
2. Context is gold

- a. The way we look at a paper concept behind a computer screen at night may radically differ to how we evaluate the same concept in the actual context or need/state that we are likely to consume it.
 - b. The researchers can ask questions in real time when using products rather than in a closed room with a bunch of other people, this will allow more honest answers
3. No regional constraints
 - a. Through the use of a network of global moderators, research can be done in many parts from the world without having to go there
4. Limited group pressure
 - a. The more extraverted people will not influence the introverted people as much
 - b. No bias → people can only see others' answers after they have answered themselves
 - c. Anonymous
5. Easy to monitor
 - a. For offline focus groups, arrange a time when everyone is free, physically be there
 - b. You can set up the topic online and participants can join the discussion whenever they choose
 - c. Also much more convenient for the client, they have to be present behind a glass wall for focus groups however they can also log on to the platform when they want and then look at the ongoing discussions
 - d. Time difference does no longer form a problem, you can just look at the answers the next day
6. Reach all target groups
 - a. Easier to connect with people from 30-50 y/o, they have a busy job and household which is why they are not often available for focus groups
 - b. For teenagers and young adults digitally connecting is also ideal as this is what they are used to
 - c. Even 60+ because it is a very easy platform to use, resembling basic social media
7. Bottom-up insights
 - a. In a focus group, the people sit together for 2 hours and all questions have to be asked then
 - b. On the platform, consumers can also create their own discussions, this allows for the companies to see what's playing among consumers, what they are interested in, this can inspire them for new products and give bottom-up insights



At InSites we do believe that great innovations are built on the back of potent consumer insights.

We have devised our internal 'recipe' for a great consumer insight but essentially they are

- Unmet needs that a customer/consumer is motivated to solve

- Powerful insights are often 'fresh' in the sense that they articulate a truth that the consumer may not have consciously recognized before, 'that's something new/new situation you are telling me, but actually its very true and relevant to me'
- Great insights can unlock great innovation and business potential

A good insight can lead to disruptive product or service innovation (eg: dyson vacuum cleaners, they realized people want to see that they are really cleaning so they made a transparent vacuum cleaner without a dust bag, this way people can see the effect)



Let go of your own personal viewpoint on the world.

It is **stronger than ourselves**: we all suffer from a well-known effect in psychology, called **the false consensus bias**. We believe that everybody thinks like us and would make the same choices. In making decisions, we rely on ourselves as a consumer and start from our own vision of the world. On top, another psychological bias being **observational selection bias** makes us find new evidence to support our own false beliefs. Recognize the fact that when you buy a new car and start seeing it everywhere? Or when you are pregnant you suddenly notice a lot of other pregnant women around you?

Remember you are **NOT always your consumer**.



Platform to give a voice to the consumers and help them have a say in the future of 'their' brands

The look and feel is very similar to social media such as facebook, there is a timeline with the most popular topics and you can browse to the different pages on the platform

The platform can be used for all business objectives:

1. Understanding consumers & generations
2. Detecting new insights
3. Developing innovations
4. Strengthening the brand
5. Optimizing go-to-market
6. Improving customer experience



Consumer listening: Consumers generate spontaneous bottom-up feedback or provide access to their social networks

Consumer immersion: Consumers self-report on their daily behaviour, engage in online conversations, or participate in real-life meet-ups

Consumer consulting: Consumers share deep motivations and engage in different tasks, allowing to generate strong insights and support decision making

Consumer co-creation: Consumers generate new ideas and develop concepts starting from relevant consumer insight platforms

Consumer validation: Consumers aid in decision making by evaluating a specific marketing concept or execution

Consumer tracking: Consumers provide regular feedback on their attitudes and behaviour related to a category or brand

ESSENTIAL ELEMENTS OF A GOOD TOPIC

1	2	3	4	5
INTRO & OUTRO	TAILOR TO TARGET GROUP	TIME FRAME	DUMMY PROOF	PROBING
Ensure that your topic has a relevant intro (e.g. how it connects to the previous topics) and an outro to get them excited to start answering (e.g. already revealing partly how you think about this).	Tailor the topic as much as possible to your target group (e.g. women in the pictures if the CCB is all female,...). Ensure that they feel the topic is specially written for them in all aspects.	Include a realistic & specific time frame in your topic to indicate how long it will be live, how much time they have to complete the task.	Make your topics dummy proof by including all relevant instructions on how to complete the topic (e.g. instructions on picture book, survey,...). Assume they have never done a similar exercise before.	Already include several probing questions in your initial topic so you know how to dig deeper during field and already indicate to the client what the additional questions per topic are.



How to analyze and report qualitative research?

- Always start with: what does your client want?
- What they don't want:
 - Trivial and already known information
 - Superficial reports
 - Summary instead of an understanding
 - Using 'some say this, other say this'
- What they do want:
 - Discover relevant patterns and common denominators
 - Have a 360° view on the research subject
 - Find clusters, segments or consumer profiles
 - Discover why people say what they say
 - Going from bits of information to structured data
- Info structuring → qualitative research needs more than bullets
- How to get more layers?
 - Counting
 - Count and assess importance/unimportance of your labels/categories
 - Count if it is a majority or minority comment
 - Bipolar analysis
 - Find the 2 most extreme reactions/posts on one label
 - Qualitative emotion detection
 - Find the label/categories where people are most (qualitatively) emotional about, the more emotionality, the more important that category/label is
 - Emotionality is about tonality
 - Target group clustering - top down
 - Read the posts from a certain target group & see which labels are important to whom and how these labels interpretation differ from cluster to cluster
 - Target group clustering – bottom up
 - Find new target groups by finding similar answering patterns about different labels
 - Leave the data
 - Do extra desk research, look at different websites, ask some colleagues, ...

WHY??



Why³

Why?

- The core of qualitative research is understanding the reason why.

How?

- For the core research questions, answer the why question until you understand the core needs and motivations.

Example

- Those aged 18 to 25 do not take the bus sufficiently.
- **Why?** Because when they were 14 to 18 they had crappy experiences on the bus.
- **Why?** Because when you're 14 to 18, you take the bus during overloaded peak hours.
- **Why?** Because when you're 14 to 18 you're afraid of taking another bus than the one you're used to and/or hardly do anything else than going to school by bus.