

# Research and its types

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\* Research is organised, systematic, data-based critical scientific inquiry or investigation into a specific problem, undertaken with the objective of finding answers or solutions to it. \* Outcome: Information that enables managers to make decisions to rectify problems. \* Data : Primary (first-hand) or Secondary (readily available); Quantitative or Qualitative Types of research:

\* Applied Research: Research done with the intention of applying the results of its finding to solving specific problems currently being experienced in the organisation. \* Basic Research: Research done with the intention to generate more knowledge and understanding of the phenomena that occur and to build theories based on the research results. Both types of research follow the same steps of systematic inquiry to arrive at solutions to problems

Research objectives: \* Objectives are statements, not questions \* Your objectives will form the basis of your methods How to write objectives: Your objectives are structured using action-words like: \* assess or reassess \* develop \* provide (an understanding of ...) \* examine \* analyse \* interpret \* elucidate \* articulate \* establish \* construct \* evaluate or re-evaluate

Research questions \* It guides your research and is what you really want to answer \* It cannot be oversimplistic What to questions to use? \* Why? Establishes a general focus for the investigator and stakeholders \* What and How? Help to establish the problem issues Example: \* O: To analyse the demographics and lifestyle profiles of potential customers. \* Q: What is the profile of the target market of the restaurant? Unit of analysis \* The first step in deciding how you will analyze the data is to define a unit of analysis. \* The unit of analysis is the object (case) about which generalizations are made based on an analysis. It is the major entity that is being studied. \* It is the “ what” or “ whom” that is being studied. \* E. g. individual people, families,

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households, business entities, public organisations. It is important to understand that your unit of analysis is not the same as your unit of observation. It is possible to analyze data in various ways. For instance, data from the student survey example in the previous example (click to revisit example) was recorded for individual students (i. e., the unit of observation), but you could group the students by city and compare Boston students to New York students, thus creating a new unit of analysis (i. e., groups of students).

**Unit of observation** \* The unit of observation is a basic concept that represents the objects that are observed and about which information is systematically collected. \* For example, a survey may collect data on the restaurant (unit of analysis). That data may include customers' contact details (unit of observation). The unit of observation is the unit from where data is collected, such as an individual in a household. For example, a survey may collect data on individuals (unit of analysis). That data may include the individuals' addresses (unit of observation).

**Determination** \* The unit of analysis is determined by an interest in exploring or explaining a specific phenomenon. \* The unit of observation is determined by the method by which observations have been selected.

**Quantitative research:** \* Structured research instruments \* Larger sample size \* Results easily replicated \* Information about how often or how many \* Less in-depth, flexible \* Researcher should know clearly what he / she is looking for \* Statistical analysis

**Qualitative research:** \* Less structured instruments \* Smaller sample size \* Results difficult to replicate \* Information about why and how \* More in-depth, flexible \* Researcher may only know roughly what he / she is looking for \* Can be used to determine the focus of follow-up, quantitative inquiries

A research strategy is a plan of action that gives direction to your

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efforts, enabling you to conduct research systematically. \* Survey \* Case study \* Experiment Research strategies cont. Survey: Collection of information in a standardised form from many groups of people \* For descriptive studies Case study: Investigation of one group of people within a specific period of time using multiple sources of information \* For exploratory studies Experiment: In an experiment we are trying to show that changes in one variable are directly responsible for causing changes in the other variable \* For explanatory/predictive studies E. g. Is watching violent movies causing children to be aggressive or is it that aggressive children like to watch violent movies? Survey \* Fixed set of questions \* Large sample \* Self-reported \* In person, phone, mail, online Survey research \* Mail survey/questionnaire \* Face-to-face/personal survey/interview \* Telephone survey/interview \* Internet survey (via web/e-mail) \* Group-administered survey A questionnaire is a formal framework consisting of a set of questions/scales designed to generate primary data Steps in Questionnaire Design 1. Confirm research objectives 2. Develop questions 3. Select appropriate data collection method 4. Determine layout and evaluate questionnaire 5. Pretest, revise, and finalize questionnaire 7. Implement survey Considerations in Questionnaire Design \* Begin with simple questions and then progress to more difficult ones \* Ask personal questions at the end \* Place sensitive questions towards the end \* Avoid asking questions using a different measurement format in the same section of the questionnaire \* End with a thank-you statement Types of question format Unstructured Questions \* Open-ended format where respondent replies in their own words Structured Questions \* Closed-ended format where respondent responds from a set of possible responses. Bad Questions \* Unanswerable \* Leading or loaded \* <https://assignbuster.com/research-and-its-types/>

Double barreled When to Use Different Types of Questions \* Open-ended, narrative questions \* Face-to-face \* Customer visits, focus groups \* Closed-ended (defined choice questions), specific questions \* Online, phone, mail \* Experiments, surveys Mail survey/questionnaire Advantages: \* anonymity \* accessibility \* (relatively) low cost \* no interviewer bias \* considered answers and consultations Disadvantages: \* no opportunity for probing \* requires (relatively) simple questions \* no control over who fills out the questionnaire \* low response rate Face-to-face interview Advantages: \* flexibility/probing (clarify questions, motivate the respondent) \* high response rate \* control of the interview situation \* collection of supplemental information Disadvantages: \* high cost \* interviewer bias \* social desirability effect \* lack of anonymity Telephone survey Advantages: \* high speed \* accessibility \* low/moderate cost \* higher response rate \* high quality of process Disadvantages: \* broken-off interviews \* reluctance to discuss sensitive topics \* no supplemental information Other survey methods Internet survey \* same (dis)advantages as mail surveys \* respondents (computer/internet users) may not be a representative sample Group-administered survey \* quick way to gather large amount of data but respondents may not treat the survey seriously, may not feel anonymous, and may feel pressured to participate Strategies to increase response \* sponsorship \* inducement to respond \* letters of support \* appeal to goodwill \* offer reward (sometimes lottery) Create motivation \* Explain why you need data \* Thank for time, cover letter, incentives \* Good quality paper and envelopes Easy to fill in \* Start easy, hard in middle, personal last in case refuses, most data already collected \* Use of colour/types of faces Strategies to increase response cont Easy to return \* Pre-paid and addressed enveloped Clarity for accurate

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information \* Unambiguous questions, e. g. tick boxes, non-overlapping answers \* Use familiar words, avoid jargon (e. g. employment vs job) \* Avoid multiple questions

Observation is useful when

- \* You want direct information
- \* You are trying to understand an ongoing behavior, process, unfolding situation, or event
- \* There is physical evidence, products, or outcomes that can be readily seen
- \* Written or other data collection methods seem inappropriate

Advantages

- \* Most direct measure of behaviour
- \* Provides direct information
- \* Easy to complete, saves time
- \* Can be used in natural or experimental settings

Disadvantages

- \* May require training
- \* Observer's presence may create artificial situation
- \* Potential for bias
- \* Potential to overlook meaningful aspects
- \* Potential for misinterpretation
- \* Difficult to analyze

Types of observation:

Structured: Sometimes we have something specific we want to observe — leadership skills; level of participation; etc. We use a structured, preset guide of what to observe or a checklist.

Unstructured: Sometimes we have something specific we want to observe — leadership skills; level of participation; etc. We use a structured, preset guide of what to observe or a checklist.

Steps in planning for observation

- \* Determine who/what will be observed.
- \* Determine aspects that will be observed (characteristics, attributes, behaviors, etc.).
- \* Determine where and when observations will be made.
- \* Develop the observation guide
- \* Pilot test the observation guide
- \* Train the observers and have them practice.
- \* Conduct the observations
- \* Analyze and interpret the collected information.

Write up and use your findings

Recording your observations

It is not good enough to just observe, you need to record your observations. You might use:

- \* Observation guide
- \* Recording sheet
- \* Checklist
- \* Field note
- \* Picture

Combination of the above

Longitudinal vs. Non-Longitudinal

- \* Best way to

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test changes in a population over time is to conduct a longitudinal study \*

Data is gathered multiple times over a period of time (multiple time-series design) A sample is a finite part of a population whose properties are studied to gain information about the whole. The sampling strategy is the way in which you select units from the population for inclusion into your study.

Sample frame: A list of all the individuals (units) in the population from which the sample is taken. Examples of Sampling Frames: \* List of businesses registered with the Chamber of Commerce \* The phone book \* List of clients served by a resource centre

Probability Sampling Types: \* Simple Random: Units are randomly chosen from the sampling frame \* Stratified Random: Random sampling of units within categories (strata) that are assumed to exist within a population \* Systemic Random: Number units within the sampling frame and select every 5th, 10th, etc. Cluster Sample: Clusters (each with multiple units) within a sampling frame are randomly selected

Cluster Sample: If you want to conduct interviews with hotel managers in Amsterdam about their training needs, you could decide that each hotel in the city represents one cluster, and then randomly select a small number. You could then contact the managers at these properties for interviews

Stratified Random Sample: If you want to conduct interviews with businesses in Amsterdam about their CSR practices, you could categorize your list of businesses into small, medium and large. Within each strata you could then randomly select a small number

Non-Probability Sampling Types: \*

Convenience sampling: selection based on availability or ease of inclusion \*

Purposive sampling: selection of individuals from whom you may be inclined to get more data \*

Quota sampling: selection on the basis of categories that are assumed to exist within a population \*

Convenience sampling: selecting

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individuals who happen to be walking down the street \* Purposive sampling: selecting resource centre clients that use many services \* Quota sampling: selecting businesses for a survey that fall into the categories of small, medium and large Sample size: Quantitative Research: \* A function of the variability or variance one expects to find in the population (standard deviation), and the statistical level of confidence (usually 95%) one wishes to use. Qualitative Research: \* As big as possible \* No definite rules to be followed