

Types of research

Research is how individuals and businesses collect and analyze data. Accurate and relevant research guides key business decisions, including marketing plans, staffing decisions and expansions, and critical data, like environmental impacts, health care, and social characteristics. Determining what data is most useful for your goals and finding the most effective ways to obtain it can help your company make successful long-term decisions.



Key takeaways:

- Research begins by asking the right questions and choosing an appropriate method to investigate the problem.
- Research is important both in scientific and nonscientific fields.
- Research methods are classified based on different criteria, such as general category, nature of the study, the purpose of the study and research design.

What are types of research?

Types of research refer to the different methodologies used to conduct research. Different types may be better suited for certain studies based on your goals, timelines and purposes. The first task is to determine what you want to study and your goals. For example, you may want to learn more about a general topic or determine how a new policy will affect employees.

Different types of research studies are useful across industries and fields, including:

- Biology, chemistry and other science-related fields
- Government offices and agencies
- Education
- Business
- Career Guide
- Career development

Applied vs Fundamental Research

To understand the difference between applied and fundamental research, it is very important to understand what they are. **Applied research** is a kind of scientific research that focuses on solving real-world issues. Applied research is critical in finding solutions to the difficulties we face daily, especially those that have ramifications for our personal lives, careers, and health. This sort of study may be applied in several ways.

Fundamental research is primarily concerned with the “big picture” issues, such as expanding the body of information available on a certain subject. In contrast to basic research, which focuses more on broad issues, applied research focuses on tackling particular problems individuals face.

However, according to a study, there is a strong connection between fundamental and applied research. Applied research is typically based on knowledge obtained in fundamental research.

Applied research differs from fundamental research in the following ways:

- Basic research is defined as work that aims to add to the body of already-existing knowledge in the scientific community. An alternative meaning of the term applied research is “scientific study useful in addressing real-life issues”
- In contrast to fundamental theoretical research, practical applied research is more hands-on
- Insofar as the application is concerned, fundamental research has a broader scope than applied research since the former may be used to solve any issue, regardless of its context
- Developing scientific knowledge and making predictions are the fundamental goals of basic research. When it comes to applied research vs fundamental research, there is a difference in emphasis
- Basic research’s primary objective is to fill in any gaps in our knowledge. When it comes to solving an issue in the real world, applied research focuses on finding the answer
- It’s important to remember that the goals of each sort of study are distinct. Basic research aims not to solve a problem but rather to improve knowledge. In contrast, applied research focuses on solving particular problems. It’s common for researchers in applied research to be motivated by a client’s needs. Individual curiosity and a desire to learn more about a topic usually drive most basic research
- There are two types of research: fundamental and applied. The former is used to build theories; the latter is used to tackle specific issues. As a result, applied research is more practical than theoretical research. On the other hand, basic research may assist in the development of hypotheses and predictions

Advantages of applied research

Applied research provides several advantages beyond helping to tackle current issues. The following are some of the benefits of doing research using an applied approach:

- Helping companies make smarter choices that save them money and reduce their risk
- Aiming for something fresh
- Inventing and developing new goods and services

Conclusion

The study may vary depending on the degree of the research and its objective. The goal of basic research might be to gain new scientific information, whereas applied research aims to find a solution to a specific issue that is being studied. These two types of study may be useful in various situations, but they each have their advantages and disadvantages. Theoretical issues may be answered with the aid of basic research. If you're looking to discover new information and make predictions, this is the kind of study you should be carrying out. When attempting to find a solution, applied research is usually more helpful.



Descriptive research

What is descriptive research?

Descriptive research is defined as a research method that describes the characteristics of the population or phenomenon studied. The descriptive research method primarily focuses on describing the nature of a demographic segment, without focusing on “why” a particular phenomenon occurs. In other words, it “describes” the subject of the research, without covering “why” it happens.

For example, an apparel brand that wants to understand the fashion purchasing trends among New York buyers will conduct a demographic survey of this region, gather population data and then conduct descriptive research on this demographic segment. The study will then uncover details on “what is the purchasing pattern of New York buyers,” but not cover any investigative information about “why” the patterns exists. Because for the apparel brand trying to break into this market, understanding the nature of their market is the study’s objective.



Some distinctive characteristics of descriptive research are:

Quantitative research:

- Descriptive research is a quantitative research method that attempts to collect quantifiable information for statistical analysis of the population sample. It is a popular market research tool that allows us to collect and describe the demographic segment's nature.

Uncontrolled variables:

- In descriptive research, none of the variables are influenced in any way. This uses observational methods to conduct the research. Hence, the nature of the variables or their behavior is not in the hands of the researcher.

Cross-sectional studies:

- Descriptive research is generally a cross-sectional study where different sections belonging to the same group are studied.

The basis for further research:

- Researchers further research the data collected and analyzed from descriptive research using different research techniques. The data can also help point towards the types of research methods used for the subsequent research.

Advantages of descriptive research

Data collection:

•A researcher can conduct descriptive research using specific methods like observational method, case study method, and survey method. Between these three, all primary data collection methods are covered, which provides a lot of information. This can be used for future research or even developing a hypothesis of your research object.

Varied:

•Since the data collected is qualitative and quantitative, it gives a holistic understanding of a research topic. The information is varied, diverse, and thorough.

Natural environment:

•Descriptive research allows for the research to be conducted in the respondent's natural environment, which ensures that high-quality and honest data is collected.

Quick to perform and cheap:

•As the sample size is generally large in descriptive research, the data collection is quick to conduct and is inexpensive.

What Is Analytical Research?

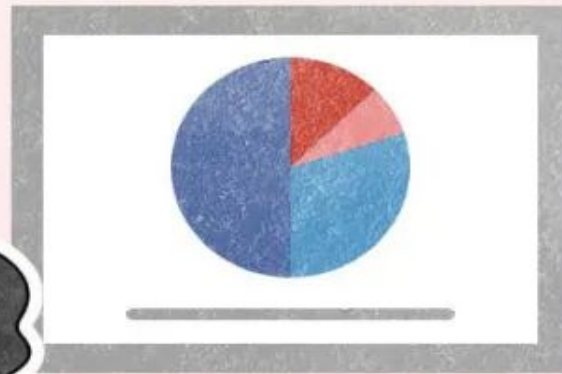
Analytical research is a specific type of research that involves critical thinking skills and the evaluation of facts and information relative to the research being conducted.



Descriptive and Analytical Research: What's the Difference?

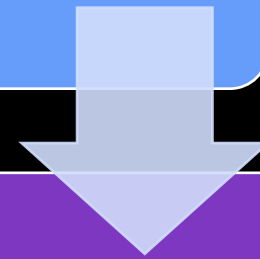
What are the facts?

Why does this happen?



Descriptive vs. Analytical Research

Both descriptive and analytical research serve a key role in statistics and data analysis. The difference is in what they look at.



*Descriptive research asks “what?” It describes something.
Meanwhile, analytical research asks “why?” We try to find out how something came to be.*

Comparing Examples

Descriptive

How many disabled people face social isolation?

What is the unemployment rate for disabled people?

How many siblings of people with Down syndrome have positive experiences?

Analytical

What causes social isolation in disabled people?

Why do disabled people have a harder time finding work?

Why do so many siblings of people with Down syndrome have positive experiences?

Conceptual vs Empirical Research

Conceptual and empirical research are two ways of doing scientific research. These are two opposing types of research frameworks since conceptual research doesn't involve any experiments and empirical research does

CONCEPTUAL RESEARCH VERSUS EMPIRICAL RESEARCH

CONCEPTUAL RESEARCH

Conceptual research is a type of research that is generally related to abstract ideas or concepts

Involves abstract idea and concepts; however, it doesn't involve any practical experiments

Philosophical research studies are an example

EMPIRICAL RESEARCH

Any research study where conclusions of the study are drawn from evidence verifiable by observation or experience rather than theory or pure logic

Involves phenomena that are observable and measurable

Includes both quantitative and qualitative studies

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Definitions

- Conceptual research is a type of research that is generally related to abstract ideas or concepts.
- Empirical research is basically a research that uses empirical evidence. Empirical evidence refers to evidence verifiable by observation or experience rather than theory or pure logic

Difference Between Conceptual and Empirical Research

- Definition

Conceptual research and empirical research are two ways of doing logical research. These are two restricting investigation systems since conceptual research doesn't include any tests, and empirical investigation does.

- Nature:

Conceptual research includes unique thoughts and ideas; as it may, it doesn't include any experiments and tests. Empirical research, on the other hand, includes phenomena that are observable and can be measured.

- Type of Studies:

Philosophical research studies are cases of conceptual research, while empirical research incorporates both quantitative and subjective studies.

Conclusion

The major difference between conceptual and empirical investigation is that conceptual research involves unique thoughts and ideas, though experimental investigation includes investigation based on perception, tests, and unquestionable evidence.

QUANTITATIVE RESEARCH

VS.

QUALITATIVE RESEARCH





Qualitative Research In a nutshell

Qualitative research is a research methodology where “quality” or opinion based research is conducted to derive research conclusions. This type of research is often conversational in nature rather than being quantifiable through empirical research and measurements.

Qualitative research:

01

focuses on words,
concepts,
descriptions, and
ideas.

02

studies topics with a
small body of
knowledge.

03

gathers facts
through interviews,
questionnaires, and
existing literature.

Quantitative Research In a nutshell

Quantitative research is a research methodology which uses questions and questionnaires to gather quantifiable data and perform statistical analysis to derive meaningful research conclusions.

Quantitative
Research
Guide



Quantitative research:

01

is concerned with numbers.

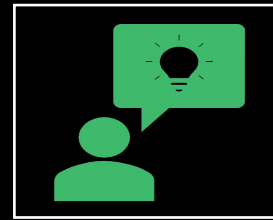
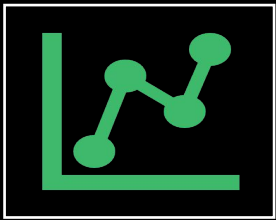
02

measures quantifiable units, analyzed with graphs and other data visualization techniques.

03

studies assumptions using measurable units, unlike qualitative research, which studies non-numerical concepts and ideas.

The main differences between qualitative vs. quantitative research



Qualitative Research

Expressed in numbers, graphs, models

Data is collected through interviews, observations

Answers the question “why?” by evaluating and compiling responses

Assumes a dynamic pool of responses

Quantitative Research

Expressed in statements and ideas

Data is collected through surveys, experiments

Answers the question “what?” by creating statistical patterns

Assumes a fixed set of variables