**Exploratory Research**

[](http://research-methodology.net/wp-content/uploads/2013/07/Exploratory-Research.jpg)

Exploratory research, as the name states, intends merely to explore the research questions and does not intend to offer final and conclusive solutions to existing problems.

Conducted in order to determine the nature of the problem, this type of  research is not intended to provide conclusive evidence, but helps us to have a better understanding of the problem. When conducting exploratory research, the researcher ought to be willing to change his/her direction as a result of revelation of new data and new insights.[[1]](http://research-methodology.net/research-methodology/research-design/exploratory-research/" \l "_ftn1)

Exploratory research design does not aim to provide the final and conclusive answers to the research questions, but merely explores the research topic with varying levels of depth. It has been noted that “exploratory research is the initial research, which forms the basis of more conclusive research. It can even help in determining the research design, sampling methodology and data collection method”[[2]](http://research-methodology.net/research-methodology/research-design/exploratory-research/" \l "_ftn2). Exploratory research “tends to tackle new problems on which little or no previous research has been done”[[3]](http://research-methodology.net/research-methodology/research-design/exploratory-research/" \l "_ftn3). Unstructured [interviews](http://research-methodology.net/research-methods/qualitative-research/interviews/) is the most popular[primary data collection](http://research-methodology.net/research-methods/data-collection/) method with this type of research.

**Differences between Exploratory and Conclusive Research**

The difference between exploratory and conclusive research is drawn by Sandhursen (2000)[[4]](http://research-methodology.net/research-methodology/research-design/exploratory-research/" \l "_ftn4)in a way that exploratory studies result in a range of causes and alternative options for a solution of a specific problem, whereas, conclusive studies identify the final information that is the only solution to an existing research problem.

On other words, exploratory research design simply explores the research questions, living room for further researches, whereas conclusive research design is aimed to provide final findings for the research.

Moreover, it has been stated that “an exploratory study may not have as rigorous as methodology as it is used in conclusive studies, and sample sizes may be smaller. But it helps to do the exploratory study as methodically as possible, if it is going to be used for major decisions about the way we are going to conduct our next study”[[5]](http://research-methodology.net/research-methodology/research-design/exploratory-research/" \l "_ftn5) (Nargundkar, 2003, p.41).

**Advantages of Exploratory Research**

1. Flexibility and adaptability to change
2. Exploratory research is effective in laying the groundwork that will lead to future studies.
3. This types of studies can potentially save time and other resources by determining the types of research that is are worth pursuing at the earlier stages

**Disadvantages of Exploratory Research**

1. Exploratory studies generate qualitative information and interpretation of such type of information is subject to bias
2. These types of studies usually make use of a modest number of samples that may not adequately represent the target population…

*My e-book,*[The Ultimate Guide to Writing a Dissertation in Business Studies: a step by step assistance](http://research-methodology.net/about-us/ebook/)*contains discussions of theory and application of research designs. The e-book also explains all stages of the*[research process](http://research-methodology.net/research-methodology/research-process/)*starting from the*[selection of the research area](http://research-methodology.net/research-methodology/selecting-research-area/)*to writing personal reflection. Important elements of dissertations such as*[research philosophy](http://research-methodology.net/research-philosophy/)*,*[research approach](http://research-methodology.net/research-methodology/research-approach/inductive-approach-2/)*,*[methods of data collection](http://research-methodology.net/research-methods/data-collection/)*,*[data analysis](http://research-methodology.net/research-methods/data-analysis/)*and*[sampling](http://research-methodology.net/sampling-in-primary-data-collection/)*are explained in this e-book in simple words.*

John Dudovskiy

## Descriptive Research

Once the groundwork is established, the newly explored field needs more information. The next step is**descriptive research**, defined as attempts to explore and explain while providing additional information about a topic. This is where research is trying to describe what is happening in more detail, filling in the missing parts and expanding our understanding. This is also where as much information is collected as possible instead of making guesses or elaborate models to predict the future - the 'what' and 'how,' rather than the 'why.'

Remember that room you're blind in? Descriptive research is the act of exploring the thing in the dark, creating a fuller picture of what you are looking at. It is not quite as tentative as exploratory, but you still are not 100% sure what you've found, although you're starting to get an idea. You begin to fill in what you know with what you find.

A psychological example is the use of CT scans, MRI, fMRI, PET, and SPECT imaging to describe the living brain. We now have the clearest picture in all of history of the thinking, living brain. Just a few decades ago, a person who wanted to look at a living brain had two options: a really blurry CT scan without any detail or to crack open the skull and peel back the protective layers around the brain.

Both options are better than a century ago, where you kind of had to wait for someone to die to examine their brain. Research over the last few decades has been expanding our understanding, providing descriptions of the active processes in the brain.

One field that is quickly growing is the field of forensic psychology. Over the last few decades, studies exploring the decision making process of police officers, the techniques used to question witnesses and the jury processes are all being examined. There has been an active interest in many researchers to explore the field that the judicial system needs.

For instance, looking into eyewitness memory studies reveals research explaining and describing the factors that influence what people see. For example, did you know that a person with different lights shining at different angles on a person's face can alter a person's entire look, including their ethnicity? How about that even in broad daylight, people still get gender of perpetrators and victims mixed up?

## Explanatory

### Basic Research[[edit](https://en.wikibooks.org/w/index.php?title=Research_Methods/Types_of_Research&action=edit&section=2)]

This research is conducted largely for the enhancement of knowledge, and is research which does not have immediate commercial potential. The research which is done for human welfare, animal welfare and plant kingdom welfare. It is called basic, pure,fundamental research. The main motivation is to expand man's knowledge, not to create or invent something.According to Travers, “Basic Research is designed to add to an organized body of scientific knowledge and does not necessarily produce results of immediate practical value.” Such a research is time and cost intensive.

### Applied Research[[edit](https://en.wikibooks.org/w/index.php?title=Research_Methods/Types_of_Research&action=edit&section=3)]

Applied research is designed to solve practical problem of the modern world, rather than to acquire knowledge for knowledges sake. The goal of applied research is to improve the human condition. It focus on analysis and solving social and real life problems. This research is generally conducted on large scale basis, it is expensive. As such, it often conducted with the support of some financing agency like government , public corporation , world bank, UNICEF, UGC,Etc,. According to hunt, “applied research is an investigation for ways of using scientific knowledge to solve practical problems” for example:- improve agriculture crop production, treat or cure a specific disease, improve the energy efficiency homes, offices, how can communication among workers in large companies be improved? Applied research can be further classified as problem oriented and problem solving research.

The term basic research refers to study and research that is meant to increase our scientific knowledge base. This type of research is often purely theoretical with the intent of increasing our understanding of certain phenomena or behavior but does not seek to solve or treat these problems.

### Examples of Basic Research

Examples of basic research in psychology might include:

* An investigation looking at what whether stress levels influence how often students engage in academic cheating
* A study looking at how caffeine consumption impacts the brain
* A study assessing whether men or women are more likely to suffer from depression

Notice in all of these examples, the goal of the research is to simply increase the amount of knowledge on a topic, not to actually come up with a practical solution to a problem.

However, as Stanovich (2007) notes, many practical solutions to real world problems have emerged directly from basic research. For this reason, the distinction between basic research and [applied research](https://www.verywell.com/what-is-applied-research-2794820) is often simply a matter of time. As [social psychologist](https://www.verywell.com/what-is-a-social-psychologist-2795644) Kurt Lewis once observed, "There is nothing so practical as a good theory."

### Observations

"It is also important to remember that the applications of basic research may not be obvious when it is initially conducted. The utility of such research to real-world problems may not be revealed until much later when enough is known about an issue to apply the knowledge gained in the basic research studies.

For example, early neuroscientists (e.g., Santiago Ramon y Cajal, as cited in Meyers, 2007) conducted basic research studies to understand how neurons function. The applications of this knowledge were not clear until much later when neuroscientists better understood how this neural functioning affect behavior...

The understanding of the basic knowledge of neural functioning became useful in helping individuals with disorders long after this research had been completed."  
(McBride,

Applied research refers to scientific study and research that seeks to solve practical problems. Applied research is used to find solutions to everyday problems, cure illness, and develop innovative technologies. Psychologists working in [human factors](https://www.verywell.com/what-is-human-factors-psychology-2794905) or [industrial/organizational](https://www.verywell.com/industrial-organizational-psychology-careers-2795653) fields often do this type of research.

### Examples of Applied Research

A few examples of applied research in psychology include:

* Investigating which treatment approach is the most effective for reducing anxiety
* Researching which strategies work best to motivate workers
* Studying different keyboard designs to determine which is the most efficient and ergonomic
* Analyzing what type of prompts will inspire people to volunteer their time to charities

As you may notice, all of these examples explore topics that will address a real-world issues. This immediate and practical application of the findings is what distinguished applied research from [basic research](https://www.verywell.com/what-is-basic-research-2794876), which instead focuses on theoretical concerns.

However, researchers also suggest that basic research and applied research are actually closely intertwined. Basic research often informs applied research, and applied research often helps basic researchers refine their own theories.

### Observations

Since applied research focuses on taking the results of scientific research and utilizing it directly in real world situations, those who work in this line of research tend to be more concerned with the external validity of their work.

External validity refers to the extent that scientific findings can be generalized to other populations. Researchers don't just want to know if the results of their experiments apply to the participants in their studies. They want these results to also apply to larger populations outside of the lab.

"Because applied research investigates realistic problems, applied researchers are often concerned with the external validity of their studies. This means that they attempt to observe behaviors that can be applied to real-life situations," explains Dawn M. McBride in The Process of Research in Psychology. "This is important because these researchers want to be able to apply their results to a problem that applies to individuals who are not participants in their study (as well as to those individuals who were observed in the study. External validity is also a consideration in basic research but in some cases can be less important that it is in applied research."

What are some examples of how applied research is used to solve real-world problems?

* A hospital might conduct applied research on how to prepare patients for certain types of surgical procedures.
* A business might hire an applied psychologist to assess how to design a workplace console to maximize efficiency and productivity while minimizing worker fatigue and error.
* An organization might hire an applied researcher to determine how to select employees that are best suited for certain positions within the company.

References

### Quantitative Research[[edit](https://en.wikibooks.org/w/index.php?title=Research_Methods/Types_of_Research&action=edit&section=6)]

This research is based on numeric figures or numbers. Quantitative research aim to measure the quantity or amount and compares it with past records and tries to project for future period. In social sciences, “quantitative research refers to the systematic empirical investigation of quantitative properties and phenomena and their relationships”. The objective of quantitative research is to develop and employ mathematical models, theories or hypothesis pertaining to phenomena.

The process of measurement is central to quantitative research because it provides fundamental connection between empirical observation and mathematical expression of quantitative relationships. Statistics is the most widely used branch of mathematics in quantitative research. Statistical methods are used extensively with in fields such as economics and commerce.

Quantitative research involving the use of structured questions, where the response options have been Pre-determined and large number of respondents is involved. eg:-total sales of soap industry in terms of rupees cores and or quantity in terms of lakhs tones for particular year, say 2008,could be researched, compared with past 5 years and then projection for 2009 could be made.

### Qualitative Research[[edit](https://en.wikibooks.org/w/index.php?title=Research_Methods/Types_of_Research&action=edit&section=7)]

Qualitative research presents non-quantitative type of analysis. Qualitative research is collecting, analyzing and interpreting data by observing what people do and say. Qualitative research refers to the meanings, definitions, characteristics, symbols, metaphors, and description of things. Qualitative research is much more subjective and uses very different methods of collecting information,mainly individual, in-depth interviews and focus groups.

The nature of this type of research is exploratory and open ended. Small number of people are interviewed in depth and or a relatively small number of focus groups are conducted. Qualitative research can be further classified in the following type.

I. Phenomenology:-a form of research in which the researcher attempts to understand how one or more individuals experience a phenomenon. Eg:-we might interview 20 victims of bhopal tragedy.

II. Ethnography:- this type of research focuses on describing the culture of a group of people. A culture is the shared attributes, values, norms, practices, language, and material things of a group of people. Eg:-the researcher might decide to go and live with the tribal in Andaman island and study the culture and the educational practices.

III. Case study:-is a form of qualitative research that is focused on providing a detailed account of one or more cases. Eg:-we may study a classroom that was given a new curriculum for technology use.

IV. Grounded theory:- it is an inductive type of research,based or grounded in the observations of data from which it was developed; it uses a variety of data sources, including quantitative data, review of records, interviews, observation and surveys

V. Historical research:-it allows one to discuuss past and present events in the context of the present condition, and allows one to reflect and provide possible answers to current issues and problems. Eg:-the lending pattern of business in the 19th century.

In addition to the above, we also have the descriptive research. Fundamental research, of which this is based on establishing various theories

Also the research is classified in to 1. Descriptive research 2. Analytical research 3. Fundamental research 4. Conceptual research 5. Empirical research 6. One time research or longitudinal research 7. Field-setting research or laboratory research or simulation research 8. Clinical or diagnostic research 9. Exploratory research 10.Historical research 11.conclusion oriented research 12.case study research 13.short term

Research

## Differences

Only measurable data are being gathered and analyzed in [quantitative research](https://explorable.com/quantitative-research-design).

[Qualitative research](https://explorable.com/qualitative-research-design) focuses on gathering of mainly verbal data rather than measurements. Gathered information is then analyzed in an interpretative manner, subjective, impressionistic or even diagnostic.

## Qualitative vs Quantitative Research

Here’s a more detailed point-by-point comparison between the two types of research:

### 1. Goal or Aim of the Research

The primary aim of a Qualitative Research is to provide a complete, detailed description of the research topic. It is usually more exploratory in nature.

Quantitative Research on the other hand focuses more in counting and classifying features and constructing [statistical models](https://explorable.com/statistics-tutorial) and figures to explain what is observed.

Read also: [Aims of Research](https://explorable.com/aims-of-research)

|  |  |  |
| --- | --- | --- |
|  | **Qualitative** | **Quantitative** |
| **Hypothesis** | Broad | Narrow |
| **Description** | Whole picture | Focused |
| **Type of Research** | Exploratory | Conclusive |

### 2. Usage

Qualitative Research is ideal for earlier phases of research projects while for the latter part of the research project, Quantitative Research is highly recommended. Quantitative Research provides the researcher a clearer picture of what to expect in his research compared to Qualitative Research.

|  |  |  |
| --- | --- | --- |
|  | **Qualitative** | **Quantitative** |
| **Phase** | Early | Late |

### 3. Data Gathering Instrument

The researcher serves as the primary data gathering instrument in Qualitative Research. Here, the researcher employs various data-gathering strategies, depending upon the thrust or approach of his research. Examples of data-gathering strategies used in Qualitative Research are individual in-depth interviews, structured and non-structured interviews, focus groups, narratives, content or documentary analysis, participant observation and archival research.

On the other hand, Quantitative Research makes use of tools such as questionnaires, surveys, measurements and other equipment to collect numerical or measurable data.

### 4. Type of Data

The presentation of data in a Qualitative Research is in the form of words (from interviews) and images (videos) or objects (such as artifacts). If you are conducting a Qualitative Research what will most likely appear in your discussion are figures in the form of graphs. However, if you are conducting a Quantitative Research, what will most likely appear in your discussion are tables containing data in the form of numbers and statistics.

### 5. Approach

Qualitative Research is primarily subjective in approach as it seeks to understand human behavior and reasons that govern such behavior. Researchers have the tendency to become subjectively immersed in the subject matter in this type of research method.

In Quantitative Research, researchers tend to remain objectively separated from the subject matter. This is because Quantitative Research is objective in approach in the sense that it only seeks precise measurements and analysis of target concepts to answer his inquiry.

Read also: [Qualitative research](https://explorable.com/qualitative-research-design), [Quantitative research](https://explorable.com/quantitative-research-design)

## Determining Which Method Should Be Used

Debates have been ongoing, tackling which method is better than the other. The reason why this remains unresolved until now is that, each has its own strengths and weaknesses which actually vary depending upon the topic the researcher wants to discuss. This then leads us to the question “Which method should be used?”

If your study aims to find out the answer to an inquiry through numerical evidence, then you should make use of the Quantitative Research. However, if in your study you wish to explain further why this particular event happened, or why this particular phenomenon is the case, then you should make use of Qualitative Research.

## Conclusion

Some studies make use of both Quantitative and Qualitative Research, letting the two complement each other. If your study aims to find out, for example, what the dominant human behavior is towards a particular object or event and at the same time aims to examine why this is the case, it is then ideal to make use of both methods.



Add a note...

Clipped from: http://peopleof.oureverydaylife.com/advantages-disadvantages-qualitative-quantitative-research-6184.html

Both qualitative and quantitative research are used in studies throughout many disciplines, including science and the social sciences. Qualitative research is concerned with complete and detailed descriptions of events, whereas quantitative research creates statistical models to explain events. Qualitative and quantitative research have several advantages and disadvantages, depending upon the researcher’s aim and area of focus.

## Advantages of Qualitative Research

[](http://s3.amazonaws.com/cme_public_images/www_ehow_com/photos.demandstudios.com/getty/article/110/146/87786001_XS.jpg)

Qualitative research is useful during the early stages of a study when the researcher may be unsure of exactly what will be studied or what to focus on. This type of research does not need a strict design plan before it begins. This gives the researcher freedom to let the study unfold more naturally. Another advantage to qualitative research is the researcher gains more detailed and rich data in the form of comprehensive written descriptions or visual evidence, such as photographs. This type of research looks at context and social meaning and how it affects individuals, which is advantageous particularly in the social sciences.

## Disadvantages of Qualitative Research

[](http://s3.amazonaws.com/cme_public_images/www_ehow_com/photos.demandstudios.com/getty/article/165/102/80447807_XS.jpg)

The researcher of a study using qualitative research is heavily involved in the process, which gives the researcher a subjective view of the study and its participants. The researcher interprets the research according to his or her own biased view, which skews the data gathered. Another disadvantage is that this research method is very time consuming and can last for months or even years.

## Advantages of Quantitative Research

[](http://s3.amazonaws.com/cme_public_images/www_ehow_com/photos.demandstudios.com/getty/article/178/247/87455862_XS.jpg)

Quantitative research allows the researcher to measure and analyze data. The relationship between an independent and dependent variable is studied in detail. This is advantageous because the researcher is more objective about the findings of the research. Quantitative research can be used to test hypotheses in experiments because of its ability to measure data using statistics.

## Disadvantages of Quantitative Research

[](http://s3.amazonaws.com/cme_public_images/www_ehow_com/photos.demandstudios.com/getty/article/79/231/BSY_046_XS.jpg)

The main disadvantage of quantitative research is the context of the study or experiment is ignored. Quantitative research does not study things in a natural setting or discuss the meaning things have for different people as qualitative research does. Another disadvantage is that a large sample of the population must be studied; the larger the sample of people researched, the more statistically accurate the results will be.

#### About the Author

Catherine Jones has been writing and editing since 2006. She writes on topics relating to popular culture, sports, teaching, and English studies. She began teaching college level English in 2008. Jones holds a Master of Arts degree in English in addition to degrees in business administration and art.

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* **esearch design**
* **Definition**
* **Popular Terms**
* A [detailed](http://www.businessdictionary.com/definition/detailed.html) [outline](http://www.businessdictionary.com/definition/outline.html) of how an investigation will take place. A research design will typically include how [data](http://www.businessdictionary.com/definition/data.html) is to be collected, what instruments will be[employed](http://www.businessdictionary.com/definition/employed.html), how the instruments will be used and the intended means for analyzing data collected.

# General purpose of research designs.

[Jang R](http://www.ncbi.nlm.nih.gov/pubmed/?term=Jang%20R%5BAuthor%5D&cauthor=true&cauthor_uid=7369224).

### Abstract

The purposes and criteria for formulating a design of research, conditions for judging causality, and use of research design as a control of variance are discussed. The purpose of a research design is to provide a plan of study that permits accurate assessment of cause and effect relationships between independent and dependent variables. The classic controlled experiment is an ideal example of good research design. Factors that jeopardize the evaluation of the effect of experimental treatment (internal validity) and the generalizations derived from it (external validity) are identified. Sources of variance can be controlled by eliminating a variable, randomization, matching, or including a variable as part of the design. A research project should be so designed that (1) it answers the questions being investigated, (2) extraneous factors are controlled, and (3) the degree of generalization that can be made is valid.

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