

# Basic and applied research | compare and contrast



## INTRODUCTION

Research is one most important of the three sources of knowledge, the other two being authority and experience. Throughout the world, millions are spent on conducting research in every known field. The purpose of the research is to educate professionals around the globe to be better equipped in dealing with their respective fields and performing better on the whole. Researchers all over the world have made ground-breaking discoveries with the help of structured researches. The underlying concept behind all researches is that every event is set about by an identifiable cause which could be uncovered and studied through suitable research method<sup>1</sup>. Every research attempts to establish the validity of a claim or a hypothesis based on an observation. The research studies this hypothesis and builds its arguments based on its findings. It requires inductive and deduction reasoning to reach a valid conclusion. Induction is the hypothesis which has been derived through beliefs and observation. The testing of the hypothesis through surveys, interviews and questioning requires deductive reasoning. There are numerous ways to study these identifiable causes and research has been categorized into two groups- applied and basic research. The two categories have been created based according to degree of their application and further use of the research. Basic research is adopted to gain knowledge and develop a foundation for future researches. Applied research is adopted to make use of the basic research and develop applications of the established research to answer specific problems by giving proven solutions in the respective field<sup>2</sup>. The two researches have their own unique differences and thus different uses in business and scientific fields.

## **AIM OF THE PAPER**

As discussed, there are two research concepts in research- basic research and applied research. This paper attempts to compare and contrast these two research concepts according to their use, functionality, nature and methodology.

### **Basic Research**

Basic Research also known as fundamental research is research that develops a particular theory. Basic Research is employed to increase the scope of knowledge in a certain field. It studies the how, why and when of the reasons for certain actions and their subsequent reactions. The reason for employing basic research are to find answers to questions like why apples or anything for that matter automatically falls on the ground when dropped. The purpose is not to discover or invent something but to appease the curiosity of the researcher.

Examples of hypothesis of a typical Basic Research could be:

- Business strategy is important for the success of a long term business plan.
- Customers are not always consumers.
- Preservation increases the life of foods.

### **The Use of Basic Research in Business**

Though Basic Research as a rule is not conducted for the purpose of practical application but contrary to popular business belief, this does not undermine the importance of basic research. Basic research is important to lay down the foundation for future applied research. The hypothesis for Applied

<https://assignbuster.com/basic-and-applied-research-compare-and-contrast/>

Research is induced from the findings of basic research. Without basic research, we would not have been able to clear old misconceptions like caffeine is always bad for your health. Basic research attempts to present the truth instead of shared beliefs.

## **Applied Research**

Applied Research is research that is concerned with the practical application of a certain proven theory. It presents solutions to human problems. It is concerned with applying the theory and evaluating its importance in business as well as scientific problems. Its main aim is to improve the pre-existing conditions and come up with better solutions to unsolved problems. Researchers believe that at this point, applied research has gained importance over basic research since mankind is equipped with the basic knowledge and now it needs to be able to use the knowledge to improve his life.

Examples of hypothesis of a typical Applied Research could be:

- Proper placement of products leads to improved sales.
- Is manual ordering of products from warehouse productive that automated ordering?
- It is important for the leader to be a role model for his employees.

## **The Use of Applied Research in Business**

The uses of Applied Research have gained immense popularity especially in business circles. People want answers to their problems and need guidance on how the right way of approaching problems. It presents a way to use an existing theory in the most efficient way. For example, basic research may

<https://assignbuster.com/basic-and-applied-research-compare-and-contrast/>

have proven that big idea is important for marketing a product but it is through applied research that it researches attempt to devise ways for developing the big idea for different products. Applied research is also used to develop newer and better products by studying existing products<sup>7</sup>.

## **Types of Applied Research**

There are three types of Applied Research, namely:

- Evaluation Research;
- Research and Development; and
- Action Research

### **Evaluation Research:**

Evaluation Research attempts to evaluate the existing data to reach informed decisions. For example, is it profitable to hire unskilled workers and train them in order to reduce overhead costs and subsequently increase margin?

### **Research and Development**

Research and Development aims to develop new products or methods through research. For example, a typical research and development would be finding ways to improve the features of the new I-phone or build a more powerful digital camera that detects smiles and take pictures automatically.

### **Action Research**

Action Research solves specific business problems by providing the right directions. It usually takes place in specific settings which are influenced by

the findings of the research. An example of action research would be 5 ways to increase sales of a forgotten product<sup>10</sup>.

## **BASIC RESEARCH VERSUS APPLIED RESEARCH**

Basic Research and Applied Research go hand in hand. It would be wrong to assume that one is more important than the other. Though there are some marked differences between basic and applied research, both these differences work in different ways to increase the power of research.

However most business researchers consider applied research as a method of improving their business knowledge and are in the favor of applied research over basic research<sup>3</sup>.

### **Aim**

As studied before, basic research and applied research have different goals to achieve. The main difference between both researches is their aim. The goal of basic research is to develop a theory or an idea that is based on beliefs or experience. It does not have any practical application apart from being able to lay the foundation for further researches and satisfy the curiosity of the researcher. Applied research, on the other hand, evaluates, develops or defines a course that has practical applications. Applied research aims to find answers and give directions to existing problem. It does not just stop at finding something but takes it forwards and uses it in the field. This is reason applied research is the most used research in business researches. Business is based on practically applying all concepts and for this reason applied research is most suitable in businesses<sup>8</sup>.

## **Defining a Hypothesis**

The aim of both Basic and Applied research at a certain level is the same. Both researches have a point or a hypothesis to prove. Every scientific research is valid only when it aims to reach a conclusion based on its original hypothesis. The beginning of both research is the same even though their aim may be different. They both use inductive and deductive reasoning throughout the research to support the hypothesis.

## **Review of Literature**

Once the hypothesis has been defined, the researcher in case of applied research would review all the literature available on his topic before moving on to the actual part of the research. In case of Basic research, the researcher may not have the proper literature. Since his aim is to increase knowledge, he may not have enough literature available on this topic and may sometimes have to depend on shared beliefs and experiences.

## **Collection of Data**

The essential aspect of all researches, basic and applied is to reach a conclusion based on data collected and analyzed. Though they may use different statistical inference methods but their method of data collected is usually the same. Data in both the researches is collected through surveys, questionnaires, interviews and observations.

## **Methodology**

Both Applied and Basic Research are approached in the same scientific method that is defined as the proper research methodology. They select a topic of interest, define a hypothesis, define the methods of data collection,

collect data, analyze it and present the conclusion impartially. Collection of data could take any form from surveys, interviews, questionnaires etc. Both applied and basic researches have the same ethical and legal boundaries that every research has. They have the same set procedures of approaching the research. Applied research though may not be limited to the research laboratory and may be conducted in the actual field. For example, to evaluate the effect of training employees, the research may have to be conducted in the actual work environment. Applied Research differs in the way it uses the conclusion and moves on further to adapt that conclusion<sup>6</sup>.

## **Scope**

The scope of basic research is much wider than that of applied research. Applied research attempts to research a specific theory while basic research does not define its parameters. Since the purpose of Basic research is to gain knowledge, it has long term effects and findings will help in defining more researches. On the other hand, applied research is concerned with finding the answers of a specific problem and may not be beneficial in a different context or on a different location or time. The means that basic research has long-term effects while the effects of applied research may be short-term<sup>9</sup>.

## **Budget**

Typically Basic Research is not as well funded as Applied Research. Basic Research may even present practical value for the researcher in the end but there is often little chance of that possibility. Most financiers want practical use of the research and thus few people want to invest in basic research. Many people are of the view that there are more problems than solutions and thus applied research should be practiced more commonly to find

<https://assignbuster.com/basic-and-applied-research-compare-and-contrast/>



solutions. The non-commercial value of basic research makes sure it receives limited funding from private as well as government sources. The government has considerably decreased its funding in basic research and is keener towards adopting applied research. This means that Applied Research is much more popularly utilized than Basic research<sup>4</sup>.

## **Findings**

The conclusions gained from basic research are often surprising and have been seen to deviate from the original hypothesis. They often go against the hypothesis and completely negate the existing belief of the researcher. But since applied research is based on the theory already proven by the basic research, the hypothesis is further established in the conclusion of the research.

## **CONCLUSION**

Both Applied and Basic research have their own advantages. They may have different aims apparently but their method of collecting and analyzing data is similar. The method of developing a hypothesis for both basic and applied research is the same. Though, in case of basic research it is often observed that the findings of the research may completely negate the hypothesis statement and present a different outlook than previously believed. But the method for conducting the research, both in basic and applied research is the same. Applied research is more conformed to its hypothesis since its theory is developed from basic research. Another point of difference is the scope of Applied Research which is comparatively narrower than that of Basic Research. Since Applied Research deals with specific problems and their solutions, the effect is limited and even short-term.

Basic research is currently lacking in its funding department. Research financiers have stopped believing the importance of a non-commercial research like the basic research and are more in the favor of funding applied research. Every year, increasing share of basic research's funding is used to fund applied research. The common belief is that there is an increase in problems and applied research could help find answers to these problems like global warming, managing diversity etc. The problem could be dealt by merging the boundaries of basic and applied research. This way, researchers could increase the scope, funding and results from the research. Mixing the two researches could increase the impact of the research without compromising any specific research<sup>5</sup>.