

# [Introduction relationship between a given variables of](https://assignbuster.com/introduction-relationship-between-a-given-variables-of/)

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## Introduction

Psychological research is conducted using a range of scientific methods which depends on the kind of data to be collected. The data for psychological studies can either be qualitative or quantitative data and is analyzed to explain a given psychological phenomena. The psychological research methods that are commonly used are case study, naturalistic observation, correlation research, survey research, and experimental method. Experimental and correlational studies are the two scientific methods of psychological study which are explored in this essay.

## Experimental Psychology

Experimental method of psychology involves the study of behavior in a controlled environment. This method establishes the cause and effect relationship of different variables and uses the results to predicts a given phenomena. The researcher identifies the dependent and independent variables of an experiment then control the dependent variables and make observations (Sharma & Sharma, 2006, pp. 1-2). This method is based on scientific observations which are factual, universal, and can give reproducible results to establish cause-effect relationships which are important in psychological predictions. Wilhelm Wundt, the first experimental psychologist established psychological laboratory to determine aspects of sensation in terms of stimulus, response and time in relation to the mind. Experimental psychology has expanded into areas such as psycho-physics, animal psychology, learning psychology, industrial psychology, education psychology and clinical psychology. The limitations of experimental psychology are difficult to ascertain all variables, limited in application to subjects, depends on the attitude and cooperation of the subject (Sharma & Sharma, 2006, pp.

2-7).

## Correlational studies

Correlational studies is a statistical method used in psychological research to determine the relationship between a given variables of a study but cannot show cause-effect relationship. It is a quantitative method of research used to correlate two or more quantitative variables in order to determine if there is any relationship (Waters, para. 1). Statistical formula is used to determine type and degree of correlation which can be a positive correlation, a negative correlation or no correlation (Cherry, 2010, para. 1).

Correlational studies can be carried out in three ways; observational, surveying or archival research and the data obtained are analyzed graphically to show correlation. The limitations of correlational studies are that they can only show the relationships of variables but cannot tell which variable affect another, that is cause-effect relationship and also other variables can mask or magnify the true relationship.

## Discussion

Experimental and correlational psychologies are similar since both methods deal with qualitative and quantitative data in their research, analysis and in their explanation of psychological phenomena. Their methods of research are scientific, factual and quantifiable. The major differences lie in their results. While experimental psychology shows cause-effect relationships, a correlational study determines whether variables have positive, negative or no correlation. Experimental psychology relies heavily on the observations which are made under controlled conditions hence limiting the study using all subjects because it is virtually impossible to simulate all the natural variables in the laboratory. On the other hand, correlative studies deals with the analysis of quantitative data and derive the possible relationships which has no cause-effect relationship.

Combination of the two research methods gives reliable scientific results because correlation studies shows how variables correlate while the experimental study differentiates between dependent and independent variables hence gives cause-effect relationship.

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