

SECTION – 5

QUESTION-2.

ANSWER:-

1. Research & Hypothesis:-

A hypothesis is a statement that can be tested by scientific research. If you want to test a relationship between two or more things, you need to write hypotheses before you start your experiment or data collection.

Example hypothesis

Daily apple consumption leads to fewer doctor's visits.

What is a hypothesis?

A hypothesis states your predictions about what your research will find. It is a tentative answer to your research question that has not yet been tested. For some research projects, you might have to write several hypotheses that address different aspects of your research question.

A hypothesis is not just a guess — it should be based on existing theories and knowledge. It also has to be testable, which means you can support or refute it through scientific research methods (such as experiments, observations and statistical analysis of data).

Variables in hypotheses

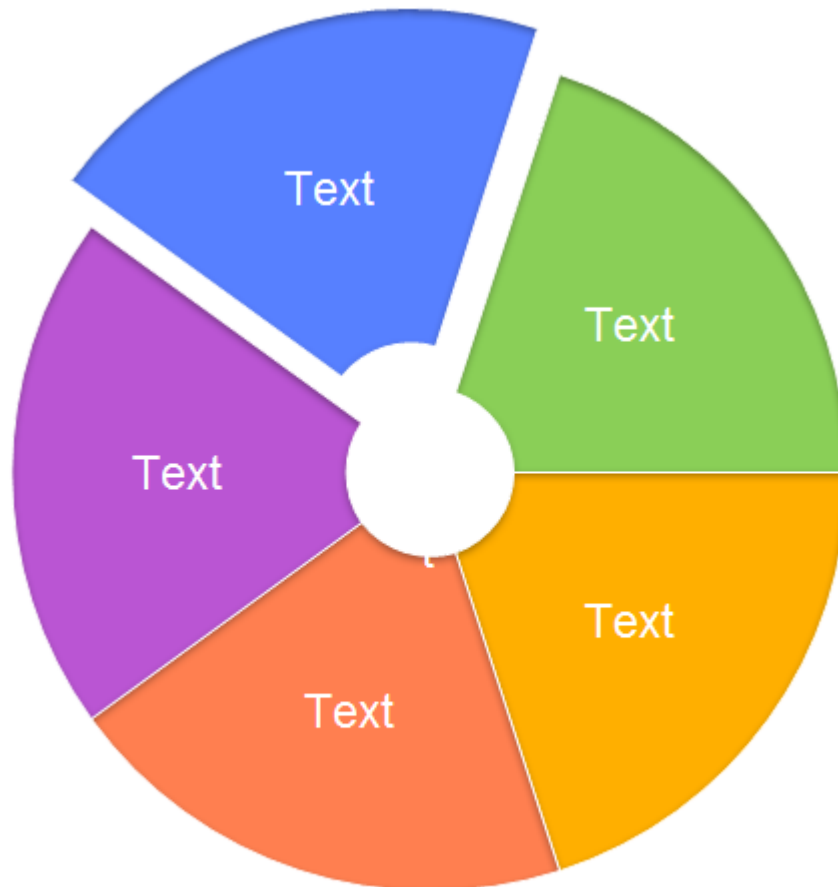
In experimental and correlational research, hypotheses propose a relationship between two or more variables. An independent variable is something the researcher changes or controls. A dependent variable is something the researcher observes and measures.

Daily apple consumption leads to fewer doctor's visits.

In this example, the independent variable is apple consumption — the assumed cause. The dependent variable is the frequency of doctor's visits — the assumed effect.

2. PIE DIAGRAM:-

This pie diagram is a simple template that provides a graphical, time-phased overview of a continuing sequence of stages, tasks, or events in a circular flow. It emphasizes the stages or steps rather than the connecting arrows or flow. It works best with Level 1 text only.



Pie Diagram

A **pie diagram** is a [circular diagram](#) divided into sectors, illustrating proportion. In a pie diagram, the arc length of each sector is proportional to the quantity it represents.

3. CHI Square Test:-

There are **two types of chi-square tests**. Both use the chi-square statistic and distribution for different purposes:

- A **chi-square goodness of fit test** determines if a sample data matches a population. For more details on this type, see: *Goodness of Fit Test*.
- A **chi-square test for independence** compares two variables in a contingency table to see if they are related. In a more general sense, it tests to see whether distributions of categorical variables differ from each another.
 - A **very small chi square test statistic** means that your observed data fits your expected data extremely well. In other words, there is a relationship.

- A **very large chi square test statistic** means that the data does not fit very well. In other words, there isn't a relationship.

4. Scale and Sampling Frame:-

The sampling frame was designed to be an enumeration of military personnel located on the ground in-theater between August 1, 1990, and July 31, 1991. Information from the Personnel and Monthly databases, acquired in October 1998 from USASCURR, augmented with unit location indicators derived from the Locations database by OSAGWI, was assembled to create the sampling frame. It consists of all Army and Marine Corps personnel located in Saudi Arabia, Kuwait, and Bahrain; all Air Force personnel located in Saudi Arabia, Kuwait, Bahrain, Qatar, the United Arab Emirates, and Oman (hereafter referred to as "in theater"); Navy personnel in units that could be identified as being ashore in theater; and all Coast Guard personnel.