Hypothesis

- A Hypothesis is a formal tentative statement of the expected relationship b/w two or more variables under the study.

- Hypothesis is considered as an intelligent guess or prediction, that gives directional to the researcher to answer the research question.
- Hypothesis is derived from the research problems, literature review and conceptual framework.
- A hypothesis helps to translate the research problem and objective into a clear explanation or prediction of the expected results or outcomes of the study.

* Contribution of hypothesis in research :—

- Its provides clarity to the research problem and research objectives.
- It describes, explains or predicts the expected results or outcome of the research.

- It indicates the type of research design.
- It directs the research study process.

- Hypothesis provides link between theories and actual practical research.

- It Provides a bridge b/w theory and reality.

- It serves a framework for drawing conclusion of a research study

- without hypothesis, research would be like aemless wandering

- It also determenes the most appropriate research designs and techniques of data Analysis.

* Functions :—

- It enables an investigator to start his research work.
- It may lead to formulations of another hypothesis
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- It leads to interpret result drawing conclusions elated to oreginal purpose.

* Characteristics of a good hypothesis. :—

- Conceptual clarity
- Empirical referents.
- objectivity
- Specificity
- Relevant.
- Testability.
- Consistency
- Simplicity
- Availability of techniques.
- Purposiveness
- Verifiability
- Profundity of effect
- Economical.

* Sources of hypothesis :—

- Theoretical or conceptual framework.
- Previous research.
- Real life experiences.
- Academic literature.

* Types of Hypothesis :-

1. Simple Hypothesis
2. Complex "
3. Associative "
4. Casual "
5. Derectional "
6. Non-directional "
7. Null "
8. Research "
9. Alternative "
10. Logical "
11. Empirical "
12. Statical "

1. Simple Hypothesis.

It is a statement which reflects the relationshep b/w two variables. one is called Independent variable or cause and the other is Independent variable or effect.

Ex— Smoking leads to cancer.

- The higher ration of unemployment leads to crime
- low levels of Hemoglobin & risk of infection.

(2) Complex Hypothesis :-

- Statement which reflects the relationship between more than two variables.

In this type Dependent and Independent variables are more than two

Ex:- Smoking and other drug leads to cancer, tension and chest infection etc.

- The higher ratio of unemployment, poverty, literacy leads to crime dacoit etc.

(3) Associative Hypothesis :-

- It reflects a relationship between variables that occurs or exists in natural settings without manipulation.
- This hypothesis is use in correlational research studies.
- When there is a change in any one of the variables, changes also occurs in the other variables.
- The associative relationship b/w the independent and dependent variables may have either.
  - Positive associative.
  - Negative associative.

Ex:- The lower the blood sugar level, the lesser is the risk of infection among diabetic Patients.

(4) Casual Hypothesis :-

- Causal Hypothesis predicts a cause and effects relationship or interaction b/w the IV and DV. (Two or more variables.
- This Hypothesis predicts the effect of the IV on the DV.

- Stated in two forms.
  - The null hypothesis (H_0)
  - The Alternative Hypothesis (H_A) or (H_1)

Ex- People subsisting on a diet that lacks vit-C will develop scurvy.

(5) Directional Hypothesis :-

- Directional Hypothesis predicts the direction of the relationship b/w the I.V and D.V.

- To express the direction of relationship b/w variable, the directional terms are used to state the Hypothesis.

such as —
Positive, negative, less, more, increased, decreased, higher, lower, e.t.c. (one tailed)

eg- Girl's ability of learning moral science is better than boys. (one tailed).