

RESEARCH ಸಂಶೋಧನೆ



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CONCEPT OF RESEARCH

- To re-search ಪುನಃ - ಶೋಧಿಸು.
- To re-examine ಪರಿಶೀಲಿಸು.
- To investigate ಸಂಶೋಧಿಸು
- To test ಪರೀಕ್ಷಿಸು
- To enquire ವಿಚಾರಣೆ
- I keep six honest serving men, (they taught me all I knew), their names are
What, why, when, how, where, and who.

CONCEPT OF RESEARCH contd.

- The concept of research in the Bible
- enquire, search, ask diligent questions, analyze and conclude
- The Lord search the heart and test the mind
- – Prove all things and hold fast that which is true

WHAT IS RESEARCH?

- Research is an investigative process of finding reliable solution to a problem through a systematic selection, collection, analysis and interpretation of data relating to the problem
- In other words research is all activities that makes us discover new knowledge about things around us.
- ಹಳೆಯದಾದ ಒಂದು ವಿಷಯದ ಸಮಸ್ಯೆಗಳಿಗೆ ಹೊಸ ಪರಿಹಾರಗಳನ್ನು ಕಂಡುಹಿಡಿಯುವುದೇ ಸಂಶೋಧನೆಯಾಗಿದೆ.

- **According to J.W. Best** Research is a systematic & objective analysis and recording of controlled observations that may lead to the development of generalizations, principles, or theories, resulting in prediction and possibly ultimate control of events. ನಡೆಯಲಿರುವ ಘಟನೆಗಳನ್ನು ಮುಂದಾಗಿ ಊಹಿಸಿಕೊಳ್ಳಲು ಹಾಗೂ ಸಾಧ್ಯವಾದ ಮಟ್ಟಿಗೆ ಅವನ್ನು ನಿಯಂತ್ರಿಸಲು ಸಹಾಯಕವಾಗುವಂತಹ ಸಾಮಾನ್ಯ ತತ್ವಗಳನ್ನು ಕಂಡುಕೊಳ್ಳಲು ಸಹಾಯಕವಾಗುವಂತೆ ನಡೆಸಲು ಪ್ರಸ್ತುತ ಸಂಗತಿಗಳ ಹಾಗೂ ನಿಯಂತ್ರಿತ ವರ್ತನೆಗಳ ಕ್ರಮಬದ್ಧ ಹಾಗೂ ವಸ್ತುನಿಷ್ಠ ವಿಶ್ಲೇಷಣೆ ಸಂಶೋಧನೆಯಾಗಿದೆ.
- **According to P.V. Young:** “Research is a scientific undertaking which by means of logical methods, aim to discover new facts or old facts and to analyze their sequences, interrelationships, casual explanations and natural laws which govern them. ಹೊಸ ವಿಷಯಗಳ ಅನ್ವೇಷಣೆ ಅಥವಾ ಹಳೆಯ ವಿಷಯಗಳ ಪರಿಶೀಲನೆ ಮತ್ತು ಪರಿಶೋಧನೆಗಾಗಿ ಸೂಕ್ತ ನೈದ್ಧಾಂತಿಕ ಉಲ್ಲೇಖಗಳ ಚೌಕಟ್ಟಿನೊಳಗೆ ಹೊಸ ತತ್ವಗಳನ್ನು ಬೆಳೆಸಲು ತರ್ಕಬದ್ಧ ಹಾಗೂ ವ್ಯವಸ್ಥಿತ ರೀತಿಯ ತಂತ್ರಗಳ ಮೂಲಕ ಕೈಗೊಂಡ ಶಾಸ್ತ್ರೀಯ ಅಧ್ಯಯನ ಸಂಶೋಧನೆ.

• Nature of Research (Characteristics) ಸ್ವರೂಪ

ಮನುಷ್ಯನ ಕುತೂಹಲ, ನಿರೀಕ್ಷೆ, ಕಲ್ಪನೆ, ಪರಿಶ್ರಮ, ಆನಂದ ಮುಂತಾದ ಸ್ವಭಾವಗಳ ವಿಕಾಸದಿಂದಾಗಿ ಸಂಶೋಧನೆ ರೂಪಗೊಳ್ಳುತ್ತದೆ.

ಸತ್ಯವನ್ನು ನಿತ್ಯ ನಿರಂತರ ಹುಡುಕುವುದು.

1. Empirical – research is based on direct experience or observation by the researcher. (ಪ್ರಾಯೋಗಿಕ)
2. Logical – research is based on valid procedures and principles. (ತಾರ್ಕಿಕ)
3. Cyclical – research starts with a problem and ends with a problem. (ಚಕ್ರಾಕಾರಕ)
4. Analytical – research utilizes proven analytical procedures in gathering data, whether historical, descriptive, experimental, and case study. (ವಿಶ್ಲೇಷಣಾತ್ಮಕ)
5. Critical – research exhibits careful and precise judgment. (ನಿರ್ಣಾಯಕ)

6. Methodical – research is conducted in a methodical manner without bias using systematic method and procedures. presented or formulated as coherent body of ideas or principles (ಕ್ರಮಬದ್ಧ)
7. Replicability – research design and procedures are repeated to enable the researcher to arrive at valid and conclusive results. (ಪುನರಾವರ್ತನೀಯ)
8. Controlled- steps are carefully planned not manipulated (ನಿಯಂತ್ರಿತ)
9. Novelty –(ಹೊಸತು) It is new one 10. Futuristic. (ಭವಿಷ್ಯರೂಪಿ)

ಪ್ರಾಕಲ್ಪನೆ/ಲೂಹೆ, ಸಮೀಕ್ಷೆ, ಸಾಮಗ್ರಿಯ ಸಂಗ್ರಹ & ಪ್ರಯೋಗ – ಇವು ಸಂಶೋಧನೆ ಎಂಬ ರಥದ ನಾಲ್ಕು ಚಕ್ರಗಳೆಂದು ಹೇಳಬಹುದು. ಸತ್ಯದ ಸಾಕ್ಷಾತ್ಕಾರವೇ ಸಂಶೋಧನೆ.

Qualities of a Good Researcher **R**esearch Oriented **E**fficient **S**cientific **E**ffective **A**ctive **R**esourceful **C**reative **H**onest **E**conomical **R**igorism.

• Importance of Research ಪ್ರಾಮುಖ್ಯತೆ

1. ಸಮಸ್ಯೆ & ವಿಷಯವನ್ನು ಪ್ರಾಯೋಗಿಕವಾಗಿ ಬಿಡಿಸುವುದು. Empirical
2. ಸಮಸ್ಯೆಗೆ ಪರಿಹಾರ ಸಂಶೋಧನೆಯಿಂದ. Clarifies problem.
3. ಸಮಸ್ಯೆಗೆ ನಿರ್ದಿಷ್ಟ ಫಲ ಪಡೆಯುವುದು. Specific result.
4. ಸತ್ಯ ಪ್ರತಿಪಾದನೆಗಾಗಿ ನಿರಂತರ ನಡೆಯುವ ಪ್ರಕ್ರಿಯೆ. For truth process.
5. ಸಂಶೋಧನೆ ಶೋಧನೆಯ ದಾರಿದೀಪ. Path to research.
6. ಸಂಶೋಧಕರಲ್ಲಿ ನಿರಂತರ ಆತ್ಮಸ್ಥೈರ್ಯವನ್ನುಂಟುಮಾಡುತ್ತದೆ. Develops courage.
7. ಸಮಸ್ಯೆಯ ನಿಖರ, ಖಚಿತ & ವೈಜ್ಞಾನಿಕ ಪರಿಹಾರ. Clear, definite, Scientific.
8. ಸಂಶೋಧಕರ ಜ್ಞಾನದಾಹದ ತೃಪ್ತಿ. Satisfies Knowledge.
9. ಸಂಶೋಧಕರಲ್ಲಿ ಗ್ರಂಥಾಲಯ & ವಾಚನಾಲಯಗಳ ಪರಿಜ್ಞಾನ. Library & Reading room.
10. ವಿಮರ್ಶಾ ಪ್ರವೃತ್ತಿ & ವಿಶ್ಲೇಷಿಸುವ ಸಾಮರ್ಥ್ಯ. Analytical.
11. ಸಂಶೋಧನೆಯು ಸಾಮಾನ್ಯೀಕರಣ, ತತ್ವಗಳನ್ನು, ಸಿದ್ಧಾಂತಗಳನ್ನು ರೂಪಿಸುವಿಕೆಗೆ ಒತ್ತು.
12. ವೃತ್ತಿ ಜೀವನದ ಮೇಲುಸ್ತರದ ಗೌರವ. Honoring in profession.

Educational Research

Meaning of Educational Research: Educational research refers to a systematic attempt to gain a better understanding of the educational process, generally with a view in improving its efficiency. It is an application of scientific method to the study of **educational problems**.

Definitions:

1. **Good.** "Educational research is the study and investigation in the field of education." ಶಿಕ್ಷಣ ಕ್ಷೇತ್ರದಲ್ಲಿನ ಅಧ್ಯಯನ ಮತ್ತು ಪರಿಶೋಧನೆಯಾಗಿದೆ.
2. **Munroe.** "The final purpose of educational research is to ascertain principles and develop procedures for use in the field of education." ಶೈಕ್ಷಣಿಕ ಸಂಶೋಧನೆಯ ಅಂತಿಮ ಗುರಿ ಶಿಕ್ಷಣ ರಂಗದಲ್ಲಿ ಮೂಲತತ್ವಗಳು & ಅಭಿವೃದ್ಧಿಯ ಕಾರ್ಯವಿಧಾನಗಳನ್ನು ಕಂಡುಹಿಡಿಯುವುದಾಗಿದೆ.

- 3. **Mulay.** "Any systematic study designed to promote the development of education as a science can be considered educational research."
- 4. **W.M Travers** - Educational research is an activity which is directed towards development in educational situation the ultimate aim of such science is to provide the knowledge to permit the educator to achieve his goal by effective method.

ಶೈಕ್ಷಣಿಕ ಸಂಶೋಧನೆಯು ಒಂದು ಪ್ರಕ್ರಿಯೆಯಾಗಿದ್ದು ಇದು ಶೈಕ್ಷಣಿಕ ವಸ್ತು ಸ್ಥಿತಿಯ ವರ್ತನೆಗಳು, ವೈಜ್ಞಾನಿಕವಾಗಿ ಅಭಿವೃದ್ಧಿ ಹೊಂದಲು ಮಾರ್ಗದರ್ಶನವನ್ನು ನೀಡುತ್ತದೆ.

Characteristics of Educational Research: (Nature)

1. Educational research is directed towards the solution of a problem in the field of education. It may attempt to answer a question or to determine the relation between two or more variables. ಸಮಸ್ಯೆಗಳನ್ನು ಪರಿಹರಿಸುತ್ತದೆ.
2. It emphasizes the development of generalizations, principles or theories that will be helpful in predicting future occurrences. ಭವಿಷ್ಯತ್ತಿಗಾಗಿ ಸೂಕ್ತ ತತ್ವಗಳು, ಸಿದ್ಧಾಂತಗಳು ಅಥವಾ ಸಾಮಾನ್ಯೀಕರಣ
3. Educational research, usually goes beyond the specific objects, groups or situations investigated and infers characteristics of a target population from the sample observed. ನಿರ್ದಿಷ್ಟತೆ, ಗುಂಪು ತೊಡಗಿಸುವುದು, ಮಾದರಿ ಜನಸಂಖ್ಯೆಯನ್ನು ಸೂಕ್ತ ಅವಲೋಕನ.
4. Educational research involves getting new data from primary or first hand sources or using existing data for a new purpose. ಹೊಸ ಅಡ್ಡಗಳಿಗಾಗಿ ಪ್ರಾಥಮಿಕ ಆಕರದ ಬಳಕೆ.

5. Educational research accepts only what can be verified by observation. Certain interesting questions do not tend themselves to research procedures. ಅವಲೋಕನ ಪ್ರಧಾನ.
6. Although research activity may at times be somewhat random and unsystematic, it is more often characterized by carefully designed procedures, always applying rigorous analysis. Although trial and error are often involved, research is rarely a blind, shotgun investigation trying something to see what happens. ನಿರ್ದಿಷ್ಟ ವಿಶ್ಲೇಷಣೆ, ಪ್ರಯತ್ನ - ಪ್ರಮಾದದ ಅಳವಡಿಕೆ.
7. Research strives to be objective and logical, applying every possible test to validate the procedures employed, the data collected and the conclusions reached. The researcher attempts to eliminate personal bias. ವಸ್ತುನಿಷ್ಠ & ತಾರ್ಕಿಕ.
8. Research requires expertise. The researcher knows what is already known about the problem and how others have investigated. ಪರಿಣಿತತೆಯನ್ನು ನೀಡುವುದು.

9. *Educational research involves the quest for answers to unsolved problems. Pushing back the frontiers of ignorance is its goal and originality is frequently the quality of a good research project.* ಸಮಸ್ಯಾ ಪರಿಹಾರ & ಗುಣಾತ್ಮಕತೆ.

10. *Educational research is based on insight and imagination. It needs the service of man who looks beyond the present.* ವಾಸ್ತವಿಕತೆಯ ಹಿಂದಿನ ಸತ್ಯದ ಹುಡುಕಾಟ.

11. *Educational research requires interdisciplinary approach. It is related to the study of complex relations about facts.* ವಿವಿಧ ಉಸ್ತುಳಿಯೊಂದಿಗೆ ಅಂತರ ಸಂಸ್ಥೆ.

12. *Educational research is not so exact a research as physical science. In the latter we can control the events but in educational research it is not possible.* ನೈಜ ವಿಜ್ಞಾನದಂತಲ್ಲ.

13. *Educational research has a great field. Educational psychology, educational philosophy, methodology, class organization and management, child development and other subjects are the fields of research in education.* ವಿವಿಧ ಕ್ಷೇತ್ರಗಳು.

Importance of Educational research

1. Educational research is important because of **contributing knowledge development, practical improvement, and policy information.** Educators can use those research findings to improve their competences and teaching and learning process Academic rewards Improving practices Facilitate learning process Verify previous findings. ಜ್ಞಾನಾಭಿವೃದ್ಧಿ & ಸಿದ್ಧಾಂತಗಳು.
2. **Academic rewards** Educational research was important for most of social sciences degrees program. Without conducting a research the students don't awarded the degrees. The aims of this research is to **develop the qualities of researchers in the students** this will be the first step for improving their practices regarding research. It is crucial for students to know that their topic of research will also reflect on their resume. ಪದವಿಗಳಿಗಾಗಿ.

3. **Improving practices.** Educational research can suggest ways of improving practices that have been verified with many applications and by many different types of people. ಅಭ್ಯಾಸಗಳು/ ಪ್ರಾಯೋಗಿಕತೆಯ ಸುಧಾರಣೆ.
4. **Facilitate learning process** Educational research can play a vital role in facilitating teaching and learning process. It can add to what we know about how people learn and what we can do help to facilitate the learning process. It enables individual to easily achieve their learning goals. ಕಲಿಕೆಗೆ ಪ್ರೋತ್ಸಾಹ
5. **Verify previous finding** Educational research can act as a test to verify previous finding. It keeps moving forward for verification of the existing research findings and makes these findings modified and make them contextual for different situations. ಹಿಂದಿನ ದತ್ತಾಂಶಗಳ ಪರಿಶೋಧನೆ.
6. **Beneficial for society** . ಸಮಾಜಕ್ಕೆ ಉಪಯುಕ್ತ.

7. Supports Multiple Perspectives

ವೈವಿಧ್ಯಮಯ ದೃಷ್ಟಿಕೋನಕ್ಕೆ ಪ್ರೇರಣೆ

8. **Grounded in theory** ಸಿದ್ಧಾಂತಗಳ ಪರಿಷ್ಕರಣೆ.
9. **National development.** ದೇಶದ ಅಭಿವೃದ್ಧಿ
10. **Developing education to changing society & technology.** ಬದಲಾಗುತ್ತಿರುವ ಸಮಾಜಕ್ಕೆ ವಿಜ್ಞಾನ, ತಂತ್ರಜ್ಞಾನಕ್ಕೆ ಪೂರಕವಾಗಿ
11. **Proper use of time.** ಸಮಯ & ಶ್ರಮದ ಸದುಪಯೋಗ.
12. **For problem solving.** ಸಮಸ್ಯಾ ನಿವಾರಣೆ.

● ಶೈಕ್ಷಣಿಕ ಸಂಶೋಧನೆಯ ಇತಿಮಿತಿಗಳು.

1. ಸಂಕೀರ್ಣವಾದ ಸ್ವರೂಪ.
2. ನಿಯಂತ್ರಣ ಕಠಿಣವಾದದ್ದು.
3. ಮಾಪನದ ಸಾಧನ & ತಂತ್ರಗಳ ಲಭ್ಯತೆಯ ಕೊರತೆ.
4. ವಿಶ್ಲೇಷಣೆಯಲ್ಲಿ ಕಠಿಣತೆ.
5. ವಾಸ್ತವಿಕ ಸಿದ್ಧಾಂತ & ಸನ್ನಿವೇಶದ ನಡುವೆ ಅಂತರ.
6. ಸಂಖ್ಯಾಶಾಸ್ತ್ರ ತಂತ್ರ ಬಳಕೆಯಲ್ಲಿ ಕೊರತೆ.
7. ದತ್ತಾಂಶಗಳ ಸಂಗ್ರಹಣೆಯಲ್ಲಿ ಪ್ರಾಮಾಣಿಕತೆಯ ಕೊರತೆ.
8. ವಿಷಯ ಪ್ರಭುತ್ವ ಇಲ್ಲದಿರುವುದು.
9. ಹಣಕಾಸಿನ ಸಹಾಯದ ಕೊರತೆ.
10. ತರಬೇತಿಯ ಕೊರತೆ.
11. ಅಗತ್ಯವಾದ ಸಾಹಿತ್ಯ ಸಾಮಗ್ರಿಗಳ ಕೊರತೆ.
12. ನಮೂನೆಯ ಅನಿಯಮಿತತೆ.
13. ಚಲಕಗಳ ನಿಯಂತ್ರಣದಲ್ಲಿನ ನಿಯಮಿತತೆ.

● ಸಂಶೋಧನೆಯ ಹಂತಗಳು.

1. ಸಮಸ್ಯೆಯ ಆಯ್ಕೆ. **Selection of Problem.**
2. ಸಂಬಂಧಿತ ಸಾಹಿತ್ಯ ಅವಲೋಕನ. **RRL**
3. ಪ್ರಾಕ್ಷನೆಯ ರಚನೆ. **Hypothesis.**
4. ಸಂಶೋಧನಾ ವಿನ್ಯಾಸ ರಚನೆ. **Methodology.**
5. ದತ್ತಾಂಶಗಳ ಸಂಗ್ರಹಣೆ & ವಿಶ್ಲೇಷಣೆ.
Data collection & Interpretation.
6. ಸಂಶೋಧನಾ ವರದಿ ತಯಾರಿಕೆ. **Reporting.**

Classification by purpose/Objectives

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- i. Basic (Pure) research ಮೂಲ ಸಂಶೋಧನೆ.
- ii Applied research. ಅನ್ವಯಿಕ ಸಂಶೋಧನೆ.
- iii. Action research. ಕ್ರಿಯಾ ಸಂಶೋಧನೆ.

• **Basic [Pure] Research:**

This is concern with the production of result and finding which lead to development of theory/Principals. Discovery of Knowledge.

1. ಶಿಸ್ತುಬದ್ಧ ಶೋಧನೆ.
2. ವೈಜ್ಞಾನಿಕ ಸಂಶೋಧನೆ.
3. ಪ್ರಾಯೋಗಿಕ ಸಂಶೋಧನೆ.
4. ಹೆಚ್ಚು ಶ್ರಮ & ಪರಿಣಿತತೆ ಅವಶ್ಯಕ.
5. ಜ್ಞಾನದ ಸಾಮಾನ್ಯೀಕರಣ.
6. ಇದು ತರ್ಕಬದ್ಧ & ನಿರ್ದಿಷ್ಟ ಚೌಕಟ್ಟುಹೊಂದಿದೆ.

- **Applied Research:**

This is conducted for the purpose of applying or testing theory and evaluate its usefulness in solving problems. It is concerned with the usefulness of ideas or theories or practical situation.

- ನಿಯಮ ತತ್ವ ಸಿದ್ಧಾಂತಗಳ ಓರೆ ಹಚ್ಚುವಿಕೆ.
- ಸ್ಥಳೀಯ ಮೌಲ್ಯದ ಪ್ರಾಮುಖ್ಯತೆ.
- ಬೋಧನಾ ನೈಪುಣ್ಯತೆ ಹೆಚ್ಚಿಸುತ್ತದೆ.

- **Basic [Pure] Research & Applied Research differences**

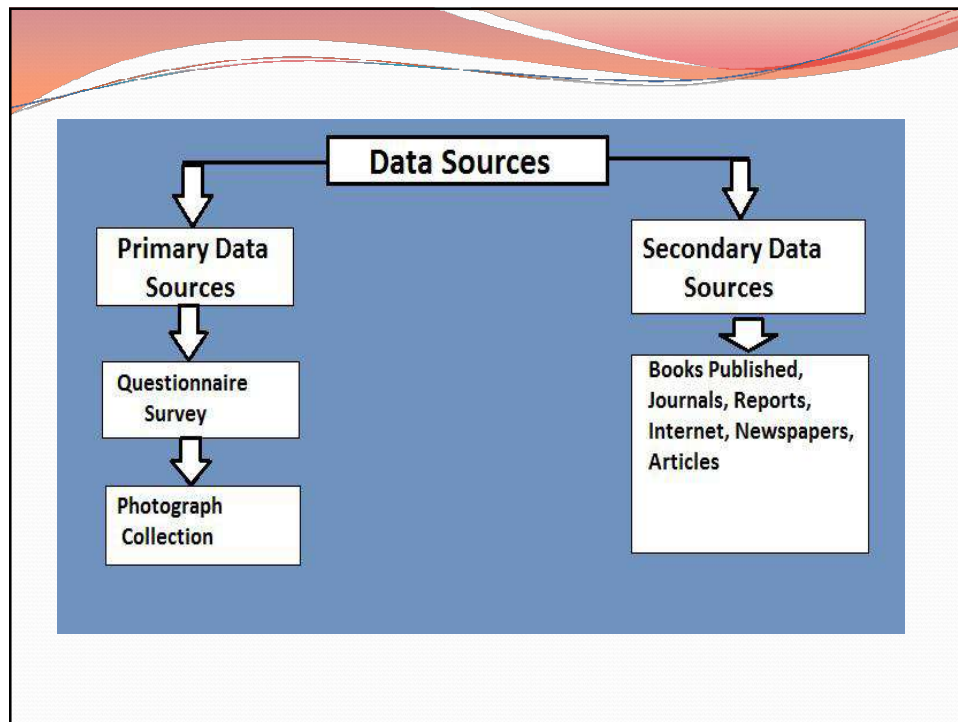
- **Action Research:** is a research that is directed towards solving specific problem in a local setting .it is usually taken by a teacher or group of teacher in school to solving specific problem so that the result can be generalized.

Classification of Research by Method/Subject

- Historical
- Descriptive (survey)
- Experimental

• Historical Research

- This type of research is based on oral evidence records such as diaries, case history, autobiography, logbook; Books, Journals, magazines etc are also useful documents.
- ಈ ಸಂಶೋಧನೆಯಲ್ಲಿ ಸಂಶೋಧಕಾರರು ಭೂತಕಾಲದ ಅಂಶಗಳಿಗೆ ಜೋತು ಬೀಳದೆ ಅವುಗಳಿಂದ ಸಾಮಾನ್ಯ ನಿಯಮಗಳನ್ನು ರೂಪಿಸಿ ಉತ್ತಮ ವಿಧಾನವಾಗಿ ರೂಪಣೆ.
- ಸಮನ್ವಯ ಮೂಲ ಮತ್ತು ಬೆಳವಣಿಗೆ ಗುರುತಿಸಿ ಯಾವುದೇ ಪಕ್ಷಪಾತವಿಲ್ಲದೆ ಸಾರ್ವಜನಿಕ ಉಪಯೋಗವಾಗಿ ರೂಪಣೆ.
- ಭೂತಕಾಲದ ಬಗೆಗೆ ಸ್ಪಷ್ಟ ನಿಲುವು. Clarity about Past.
- ಭೂತಕಾಲದ ತಪ್ಪುಗಳು ಮರುಕಳಿಸದಂತೆ ರೂಪಣೆ. Mistues/ Faults
- ತಪ್ಪು ಕಲ್ಪನೆಗಳನ್ನು ಹೋಗಲಾಡಿಸುವುದು. Removal of mistakes.
- ಸಾಮಾಜಿಕ ಸಂಸ್ಥೆಗಳು ಕಾಲದಿಂದ ಕಾಲಕ್ಕೆ ವಿವಿಧ ಕಾರ್ಯಗಳ ಪರಿವರ್ತನೆ.
- ಪ್ರಾಥಮಿಕ ಆಧಾರಗಳು/ಮೂಲಗಳು Primary Sources.
- ದ್ವಿತೀಯ ಆಧಾರಗಳು/ಮೂಲಗಳು Secondary Sources.



Difference b/w primary and secondary data

Primary data

- ▶ Real time data
- ▶ Sure about sources of data
- ▶ Help to give results/ finding
- ▶ Costly and time consuming process
- ▶ Avoid biasness of response data
- ▶ More flexible

Secondary data

- ▶ Past data
- ▶ Not sure about of sources of data
- ▶ Refining the problem
- ▶ Cheap and no time consuming process
- ▶ Can not know in data biasness or not
- ▶ Less flexible

- **Descriptive Research**

- It is also called a survey research. This type of research is based on information, interviews, (oral, written, structured, unstructured etc), inventories, rating scales, self report, observation etc. **Descriptive research is aim at fact finding of the present condition or current situation.**
- undertaken to describe answers to questions of who, what, where, when, and how.
- **Types of Descriptive Research** ☐ Observational Method ☐ Interrelationship studies ☐ Case Study Method ☐ Survey Method ☐ Developmental studies.
- **Steps of Descriptive Research** - Selection of the Problem, -Narrating the problem, -Identification of Data, -Selection & development of tool, -Selection of Sampling, Data analysis & Interpretation, -Reporting

- **Observational Method** ☐ Observational research (or field research) is a type of correlational (i.e., non-experimental) research in which a researcher observes ongoing behaviour.
- There are a variety of types of observational research, each of which has both strengths and weaknesses.
 - ☐ 3 Approaches of Observational Research:
 - Covert observation ಪರಿವರ್ತಿತ ಅವಲೋಕನ,
 - Overt observation ಪ್ರಕಟಿತ ಅವಲೋಕನ,
 - Researcher participation ಪಾಲ್ಗೊಳ್ಳುವಿಕೆಯ ಅವಲೋಕನ.

- **Case Study Method** ☐ Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems that are studied holistically by one or more method.
- The case that is the subject of the inquiry will be an instance of a class of phenomena that provides an analytical frame — an object — within which the study is conducted and which the case illuminates and explicates.

- **Survey Method** ☐ A survey is defined as a brief interview or discussion with individuals about a specific topic. Survey research is often used to assess thoughts, opinions, and feelings. Survey research can be specific and limited, or it can have more global, widespread goals. ☐ A survey consists of a predetermined set of questions that is given to a sample. With a representative sample, that is, one that is representative of the larger population of interest, one can describe the attitudes of the population from which the sample was drawn. ☐ 3 Techniques of Survey Research are: ☐ Questionnaires ☐ Interviews ☐ Survey

- **Experimental Research**
- This type of research involves conducting experiment for research purpose. The experimental method involves investigating possible cause and effect relationship by exposing one or more experimental groups to a treatment and one or more control groups not receiving the treatment.

CLASSIFICATION OF RESEARCH BASED ON EVIDENCIES REQUIRED OR METHOD OR DATA ANALYSIS

- There are three types of research based on evidences required or method of data analysis. These are:
- i. Qualitative - non computational ಗುಣಾತ್ಮಕ.
- ii. Quantitative – Computational ಪರಿಮಾಣಾತ್ಮಕ.
- iii. Triangulation of multiple perspectives. ತ್ರಿಕೋನಾಕಾರದ.

WHAT IS A VARIABLE?

- Any quality or quantity in which the researcher is interested and which varies in the course of the research e.g interest, skill, knowledge etc.

TYPES OF VARIABLES

The most frequent variable encounter in research are:

- **Independent**
- **dependent.**

TYPES OF VARIABLE

- **Independent variable** – is also called manipulative or treatment variable.
 - it determine the nature or the occurrence of another variable
 - It is the variable that is manipulated by the researcher
 - It presume to cause, influence or affect the outcome.

- **Dependent Variable:** is also called outcome variable
- It is a variable that the independent variable is presumed to affect.
- It is a variable that changes, appear or disappear as researcher changes, remove or introduces the independent variable.

- **Extraneous Variable**
- is a secondary independent variable, that is, other independent variables or factor that may affect the outcome of a research if not controlled. Eg. Moderator variable.
- **Intervening Variable:** cannot be manipulated or studied directly because their effect cannot be measured or manipulated.

EXAMPLES

- Academic Procastination, Overconfidence and Parental Unrealistic Expectations as correlates of Academic Rebelliousness
- Relationship between gender and academic achievement of education students

Example of Research Question

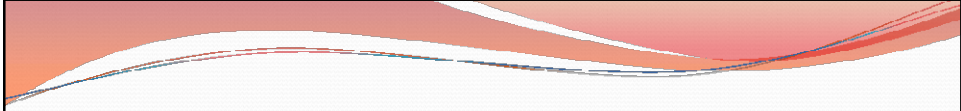
- How does information utilization affect the academic performance of the university students?
- Will information utilization affect the academic performance of male and female university students?
or
- Will there be any significance difference in how information utilization affect the academic performance of male and female university students?

RESEARCH HYPOTHESES

- Research hypothesis is a formal affirmative statement predicting a single research outcome.
- i.e. it predict the likely relationship between independent variable and dependent variable.
- Also suggest or guess answers to the research questions before the study is embarked upon

RH

- Hypothesis can be formulated in 2 forms: Null and alternative.
- Null hypothesis is stated in a negative form. H_0 is use to represent null hypothesis.
- It is a non-directional hypothesis. It is non-directional because it does not indicate a favourable or negative expectation of the findings.

- 
- Alternative hypothesis stated in positive form.
 - This is a directional hypothesis and H_1 is used to represent alternative hypothesis.
 - It specifies the relationship between variables.