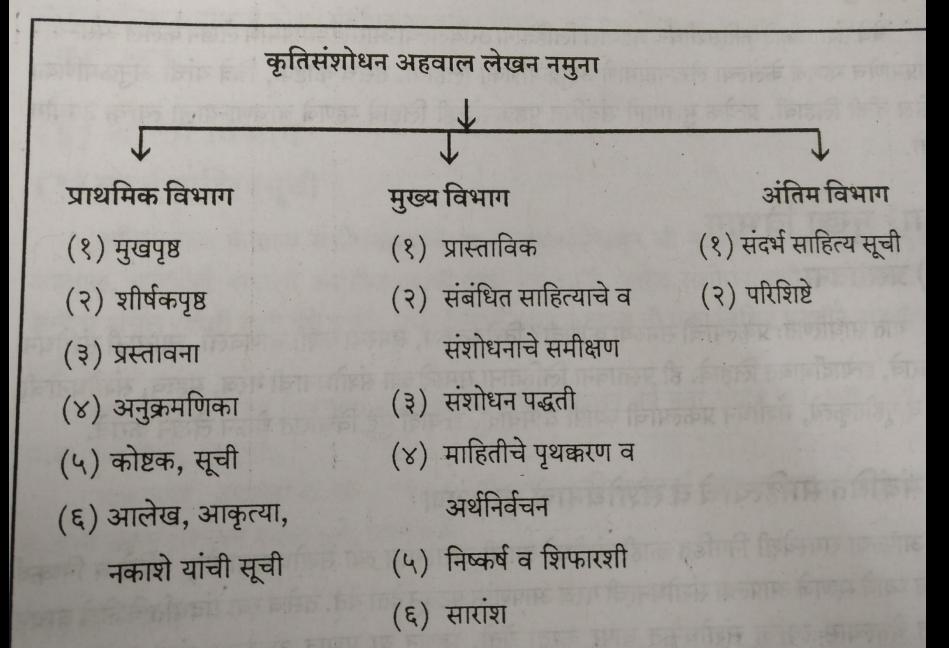


#### अहवाल लेखनाच्या पायऱ्या



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#### Chapters DSM Action Research

#### CH 3 Research Methodology

3.1 Methodology
3.2 Variables
3.3 Tools of data collection

Characteristics of data collection tool

3.4. Preparation of the tool
3.5 Development of the Programme
3.6 Administration of the programme
3.7 Time schedule of the whole programme

#### CH 4 <u>Analysis</u> and Interpretation of Data

- 4.1 Tabulation of data
- 4.2 Analysis of Quantitative data
- Difference in Mean/t-test/graphical representation
- 4.3 Interpretation of the data.

#### **CH 5 Summary and Conclusions**

1.1 Need and Importance

1.2 Title

1.3 Objectives

1.4 Hypothesis

1.5 Methodology

1.6 Variables

1.7 Tool for data collection

1.8 Tool for data analysis

1.9 Sample

1.10 Conclusion

1.11 Discussion

1.12 Recommendations

#### CH 1 Introduction to the problem

- 1.1 Problem background
- 1.2 Need and Importance
- 1.3 Title
- 1.4 Objectives
- 1.5 Hypothesis
- 1.6 Methodology
- 1.7 Variables
- 1.8 Tool for data collection
- 1.9 Tool for data analysis
- 1.10 Sample

#### 2 CH 2 Review of Related Literature

- 3 2.1 What is review?
- 4 2.2 Need of Review
- 5 2.3 Researches related to the topic (title, researcher's
- 6 2.4 How present research is different than the reviewed

#### What is Research?

• General definition is "finding answers to questions in an organized and logical and systematic fashion"

## Need of Research

- For the progress in the field o education
- Research in education will add to theory in education
- For betterment of human being.
- The situations in the field of education ever changes so solutions are required.
- \*\* Educational researches involves comlexity of subjects, variations in subjects are observed as they are human beings

## Types of Research Problems

- Basic Research
  - essential for the development of theory
  - motivated by intellectual curiosity
  - no immediate practical utility

- Applied Research
  - answer an immediate practical problem
  - often apply the findings of basic research

#### 1) Introduction to the problem / प्रास्ताविक

•Write about general situation observed in society/school regarding your problem. सर्व साधारण परिस्थिती

•Identification of educational problem. समस्या

•It is a statement of the problem identified. समस्या विधान

E.g. Problem of maths failure in std 8<sup>th</sup>.
Problem of discipline for std 5<sup>th</sup>.
Problem of Absenteeism std 10<sup>th</sup>.

#### • 2) Need and Importance

#### गरज व महत्व

## Here describe why have you chosen this problem??

3) Title समस्या विधान Experimental: प्रायोगिक

Study of the effectiveness of Concept Attainment Model for a topic in Mathematics for std. 8<sup>th</sup> . इ. ८ वी च्या विदयार्थ्यांकरिता गणित विषयाकरिता संकल्पना प्राप्ती

प्रतिमानाच्या वापराच्या परिणामकारकतेचा अभ्यास

## 4) Objectives उदिदष्टे

- A research objective is a clear, concise, directive statement which provides direction to investigate the variables.
- Research objectives should be SMART Specific, Measurable, Attainable, Realistic & Time-bound.
- E.g. To prepare a programme....कार्यक्रमाची निर्मिती़ करणे To measure the effectiveness....परिणामकारकता तपासणे :

## 5) Operational definitions कार्यात्मक व्याख्या

- It means in which context you have used that variable.
- It has a limited meaning.
- E.g. definition of creativity, environment, scientific attitude

## 6) Types of Variables in Research বল

- Variables are the events, characters or personality traits in the research which can be changed or classified.
- Independent (IV)
- Dependent (DV)

#### Independent Variable स्वाश्रयी चल

- Independant Variable is that factor that is measured, manipulated or selected by the experimenter to determine its relationship to an observed phenomenon.
- E.g. Remedial teaching programme, Any special teaching programme.

#### Dependant Variable आश्रयी चल

Dependant Variable is that variable which is observed & measured to determine the effect of independent variable.

E.g. achievement test, Interest, Attitude etc.

7) *Hypothesis : For Experimental* There are two types of hypothesis : Research and Null.

Research Hypo : E.g. There is a significant difference between the pre test and post test mean due to teaching with co-operative learning.

Null Hypo: There is a no significant difference between the pre test and post test mean due to teaching with co-operative learning.

#### सहकार्यात्मक अथ्ययन कार्यकमामूळे विदयार्थ्यांच्या पूर्व चाचणी व उत्तर चाचणी च्या गुणांमधे सार्थ फरक आढळणार नाही .

शून्य परिकल्पना

#### सहकार्यात्मक अथ्ययन कार्यकमामूळे विदयार्थ्याच्या पूर्व चाचणी व उत्तर चाचणी च्या गुणांमधे सार्थ फरक आढळेल .

• संशोधन परिकल्पना

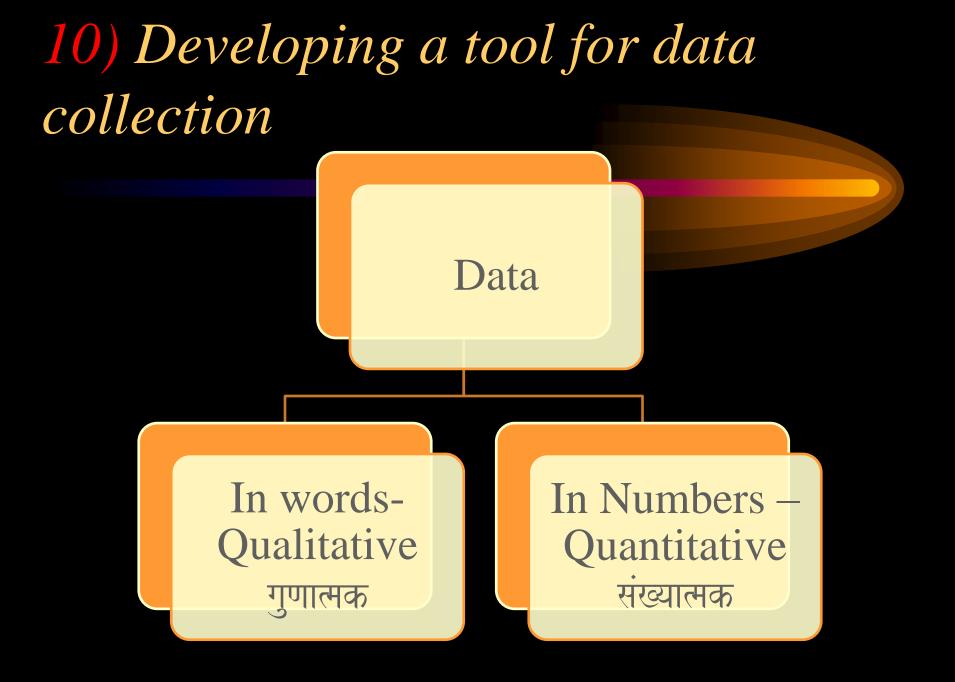
## Null Hypothesis

- It is a negative statement that the researcher tries to reject.
- Verification of one consequence of hypothesis does not prove it to be true. Theses consequences can be because of some other factors .
- So rejecting null hypothesis provides a stronger test of logic.

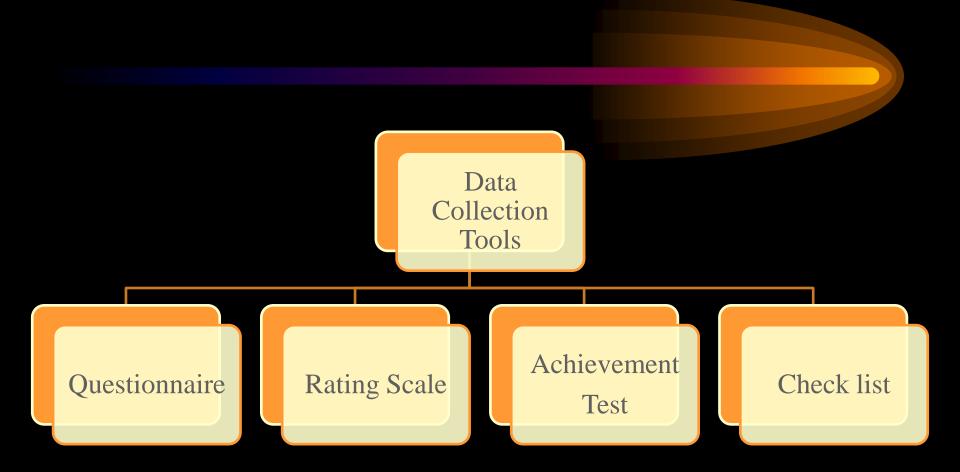
# 8) Methodology:Whether experimental or Survey?

9) Population न्यादर्श All 8<sup>th</sup> std students following state board curriculum.

Sample: नमुना10 students of std 8th of High Vision School,<br/>Talegaon Dabhade.



### Developing a tool for data collection



## Developing a tool for data collection

E.G. Problem of Maths failure

- Achievement Test (pre test, Post test)
- Questionnaire

#### 10 A)

Write down detailed procedure of development of tool.

# 12) Data collectionWrite the detailed date wise schedule of data collection.

#### Data Analysis

- For Experimental
- M1 = Mean of Pretest पूर्व चाचणी मध्यमान
- M2 = Mean of Post test उत्तर चाचणी मध्यमान
- M2-M1 = Difference. मध्यमानातील फरक
- If the difference is greater than 80% then effective.
- Also draw graph of Pretest and post test scores.

### Summery and Conclusion