### Chapter-1

**Selection of the Problem**

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Chapter-1

Selection of the Problem

1.0 Introduction

The present era is the era of ‘Up to Date Knowledge’. As we are realizing the burst and piles of the knowledge, it is realized that the knowledge should not be ‘Up to Date’, but it should be ‘Up to Minute’. The inventions in various fields pouring the world with new ideas and philosophy. Because of the changes in every field, the research is also feeling the changes and expansion. The knowledge has been created by the changing the information into the practice. The researches had given new information, knowledge, ideas and theories to the nation. The education research, besides various research fields had given new change and turn to think over the education. The father of the nation, Mahatma Gandhi had told that the education can only mould the nation and the character after the freedom.

In educational research, there are lots of researches had been undertaken in various educational fields, but there are fewer reliable and authentic researches one can find.

The student can be prepared for the examination by giving them only information and knowledge related to the examinations; but when the student is given logical problem on the basis of pre-knowledge, the students feel the imbalance towards the problem. At this moment, the student thinks logically and systematically. It is called logical procedure. The student becomes intelligent on the basis of logical procedure in which basis is not cramming but the pre-knowledge. Thinking process takes process in the logical procedure.

There is no exaggeration in telling the logical procedure an aspect of education. Questions regarding the logical procedure and ability have been asked now a day because only knowledge or the information is not enough today. It shows the importance of the logical reasoning and logical ability. So it is important to increase the ability of logical
reasoning and logical procedure in the present time. On the basis of the logical reasoning, the students can easily get the success in the field of education. The mental ability of the students needs the guidance and the same mental ability is the logical reasoning. The students can get the solutions to many problems when one’s logical reasoning ability developed. In educational research, many types of the tests had been invented. One can see language ability test, fine art recognition test, achievement tests, vocabulary prosperity tests etc. But there are fewer researches one can see in the field of the logical reasoning. So, the researcher had decided to work on construction and validation of the logical reasoning test in Hindi subject.

Patel (2001) has constructed the logical ability test for the students of higher secondary school level. Tamaliya (2001) has constructed the aptitude test for the teachers of the primary school. Mehta (2002) has constructed the language ability test. Rathd (2005) had constructed the achievement test for science subject. Gosai (2006) has constructed criterion test for mathematics and Desai (2006) had constructed reasoning ability test for B.Ed. College students. It is considered that the 8th standard level is the best for the logical reasoning ability development for the students. The students of the first year of 8th standard are in the stage of teen age. In the primary school stage, the student acquires knowledge and comprehension. In the higher primary stage, the students are able to do logic but they cannot do acute logic. Thus, the logical ability of the students is in the process of development during the higher primary stage. Thus, the researcher had decided to construct the reasoning ability test for the students of 8th standard. So, the students can get its betterment for the fruitful fundaments of the future and the contribution of Gujarat will be there in the field of competitive examination field. The reasoning ability level of the students can be known. The level of the students can be known from the beginning and remedial work can take place initially.

1.1 Statement and Definition of the Problem

In the present research, the reasoning ability of the students of the of the Gujarati medium schools of Gujarat state was checked. The objective of the study was to check the reasoning ability of the students and where they are with the reference to Hindi verbal
reasoning test thus, to lead the students to higher stages. With the medium of various elements, if the emphasis is given on the reasoning ability of the students, their reasoning ability can be developed. The title of the research was

**Construction and Standardization of Reasoning**

**Test in Hindi Language for the Students of 8th Standard**

1.1.1 Standard 8

Standard, level and status of 8th standard offered by the upper primary school. The first semester of 8th standard of upper primary school.

1.1.2. Hindi Verbal Reasoning Test

The situation is created as to measure the Hindi verbal reasoning ability of the students of 8th standard. Induction and deduction type of the verbal reasoning ability is to be included in this type of situation. Thus, the special situation refers the particular element of verbal reasoning ability. In the present study, the researcher has decided to include various elements to develop the Hindi verbal reasoning ability of the students.

1.1.3. Construction

Hindi verbal reasoning ability test was constructed on the basis of using verbal reasoning ability elements for the construction of test. The verbal reasoning ability test was prepared by using construction, edition and selection of the statements.

1.1.4. Validation/Standardization

- The test which is constructed to measure the Hindi verbal reasoning ability of the students and the test which is constructed to validate and standardize and to follow its steps is called validity or standardization of the test.

- If the measurement of the test is stable, the test is called reliable.

- If the test measures the components and elements effectively, it is decided by the validity of the test.

- In brief, the process of deciding validity, reliability and establishing norms is called the process of standardization of the test.
1.2 Objectives of the Study

Every work has been decided by its objectives. By deciding the objectives, researcher can decide its beginning, process and end with the reference to the time limit. K.G. Desai says regarding the objective of the study: “objectives are those in which direction the work can be pursue or the objective is the systematic change which is acquired by the action”.

In the present research, the objectives of the study are as under.

1.2.1. To construct and standardize the reasoning ability of Hindi language for the students of 8th Standard.

1.2.2. To establish the norms of the reasoning test of Hindi language for the students of 8th Standard.

1.2.3. To check various variables of the reasoning test of Hindi language for the students of 8th Standard.

1.3 Hypothesis of the Study

In the present research, the construction of the hypothesis is not based on the norms. The hypothesis is constructed on the basis on the different levels of the variables. The hypotheses of the study were as under.

1.2.4. There will be no significant difference between the mean score of the male student and female student of the 8th standard on the verbal reasoning test.

1.2.5. There will be no significant difference between the mean score of the students of grant in aid schools and self finance school student of the 8th standard on the verbal reasoning test.

1.2.6. There will be no significant difference between the mean score of the rural area student and urban area student of the 8th standard on the verbal reasoning test.
1.2.7. There will be no significant difference between the mean score of the male student and female student of the 8th standard, based on classification element, on the verbal reasoning test.

1.2.8. There will be no significant difference between the mean score of the students of grant in aid schools and self finance school student of the 8th standard based on classification element, on the verbal reasoning test.

1.2.9. There will be no significant difference between the mean score of the rural area student and urban area student of the 8th standard, based on classification element, on the verbal reasoning test.

1.2.10. There will be no significant difference between the mean score of the male student and female student of the 8th standard, based on sequencing element, on the verbal reasoning test.

1.2.11. There will be no significant difference between the mean score of the students of grant in aid schools and self finance school student of the 8th standard based on sequencing element, on the verbal reasoning test.

1.2.12. There will be no significant difference between the mean score of the rural area student and urban area student of the 8th standard, based on sequencing element, on the verbal reasoning test.

1.2.13. There will be no significant difference between the mean score of the male student and female student of the 8th standard, based on familiar element, on the verbal reasoning test.

1.2.14. There will be no significant difference between the mean score of the students of grant in aid schools and self finance school student of the 8th standard based on familiar element, on the verbal reasoning test.

1.2.15. There will be no significant difference between the mean score of the rural area student and urban area student of the 8th standard, based on familiar element, on the verbal reasoning test.
1.2.16. There will be no significant difference between the mean score of the male student and female student of the 8th standard, based on co-relation element, on the verbal reasoning test.

1.2.17. There will be no significant difference between the mean score of the students of grant in aid schools and self finance school student of the 8th standard based on co-relation element, on the verbal reasoning test.

1.2.18. There will be no significant difference between the mean score of the rural area student and urban area student of the 8th standard, based on co-relation element, on the verbal reasoning test.

1.2.19. There will be no significant difference between the mean score of the male student and female student of the 8th standard, based on alphabetical element, on the verbal reasoning test.

1.2.20. There will be no significant difference between the mean score of the students of grant in aid schools and self finance school student of the 8th standard based on alphabetical element, on the verbal reasoning test.

1.2.21. There will be no significant difference between the mean score of the rural area student and urban area student of the 8th standard, based on alphabetical element, on the verbal reasoning test.

1.4 Population and Sampling Method

In the present study, Gujarat state was divided in four layers: saurashtra zone, north Gujarat zone, mid Gujarat zone and south Gujarat zone in which the districts and schools were selected randomly. After selection of districts and schools, all the students were selected of the 8th standard of school by cluster sampling method.

There were 4000 subjects selected in the sample of the research. The sample was selected was by keeping in view the variables selected by the researcher.
In the present research, the sample selection method was the random stratified cluster method.

1.5 Delimitations of the Study

The study was delimited as under.

- The students of the 8th standard of secondary schools of Gujarati medium were included in the study.
- The present research was delimited to the students of 8th standard of the secondary schools of the Gujarat state.
- The Hindi verbal reasoning test was constructed by traditional method only in which statement response method was not used.
- In the present research, the test was constructed not constructed keeping in view the components of any text book. Only the components of reasoning were included in the Hindi verbal reasoning test.

1.6 Rationale of the Study

Every research has been carried out to establish its necessity. Every researcher tends to add new knowledge and understanding in the practical field of the education. Present research has under given importance.

- Validated and reliant tool will be available to evaluate verbal reasoning in Hindi language,
- The reasoning test, which was constructed by the researcher, will be useful for comparing two different groups.
- With the reference to results achieved by the students on the reasoning test, inspiration and consolation could be given.
- The reasoning test will be useful for those students who are preparing for the
competitive examinations.

- With the reference to different variables like gender, standard, area and school, the effect and difference on the achievement test will be known.

- In the present research, the researcher had not used any topic of the text book. So, it will be useful ever if the text book changed.

- By this reasoning test, the present ability of the students can be known. They can be lead to the higher achievement stages.

- With the reference to this reasoning test, the difference between the reasoning test in Hindi and the Mother tongue could be known.

- Hindi verbal reasoning test will be useful and helpful to know the effect of the medium of language and understanding of the students.

- This test will be useful to the Hindi teacher of secondary schools while teaching the Hindi language.

- This test will be useful for the students who are going to give the entrance test for the secondary schools.

- This test will be useful for the students to enhance the interest in the reasoning ability as well as in the Hindi language.

- This study will be useful for sowing the seed of the competitive examinations right from the beginning to achieve long term goal.

- This study will be useful to check and evaluate the reasoning of the students all over the Gujarat.

- In the present research, the verbal reasoning test tool was validated and relied for evaluating in the Hindi language. So, it will be helpful as well as guiding tool for the future researches.
These points of the importance of the study are just the directional. But, the true importance of the research will be decided by the users of the research.

1.7 Planning of Future Chapters

Planning is needed before beginning any work. After defining the problem, research subject was constructed. The researcher had topic under the mainstream of the field.

The planning of future chapters is as under.

Chapter-2

In this chapter, the review of related research is conveyed. The related research is reviewed and abstract of related research is presented in the chapter. Critical analysis of the researches has also given in the chapter. In the end of the chapter, the distinctiveness of the present research has been given.

Chapter-3

In the present chapter, the researcher has chosen the research method and design on the basis of the review of related researches. The researcher has given the directions about the process of tool construction, test construction, standardization of the test, universe of the sample, selection of sample, the process of data collection, the validity and reliability of the test and process of establishing the norms.

Chapter-4

In the present chapter, the process of data analysis and interpretation of the data is given. The data are presented in classification using various statistical techniques.

Chapter-5

In the present chapter, the findings of the study are presented on the basis of data analysis and interpretation done in the previous chapter. The recommendations are also
given by the researcher. In the end of this chapter, the recommendation for the future researches have also been given by the researcher.
Ending Note


Gandhiji, *My Experiment with the Truth* (Pg. 129), Navjivan Prakashan, Ahmedabad-14