CHAPTER – 3

NECESSITY AND REVIEW OF CONCERNED LITERATURE
“When education is good, purposeful and significant, its outcome is successful.”

- Nicholas Long

CHAPTER – 3

NECESSITY AND REVIEW OF CONCERNED LITERATURE

3.1 Introduction.

3.2 Concept of related literature.

3.3 Sources of related literature.

3.4 Importance of related literature.

3.5 Reasons for review (Why review?)

3.6 A study of previous related researches.

3.7 Review of related researches.

3.8 Significance of this study.
3.1 Introduction:

Before conducting a research study on the problem selected by the researcher himself a review of previously held related researches in the field is an important and essential task for a researcher. The review of previous related literature guides a researcher in an appropriate direction. Besides, a researcher goes an idea about whole work method, observations of the researcher and about the inferences and suggestions by the researches which become very useful in the research.

The previous literature provides a foundation for new researches. If we do not review the previous related researches, the works done by other people may result into a mere repetition of their work. Thus the reviews of previous related literature becomes important and a guide for a research previous related work serves.

3.2 Concept of Related Literature:

While clarifying the concept of reference literature MacMillan and Schumaker say, “Before preparing details on a research design whatever is written about research problem should be known and investigated opinions of experts and other reports should be read. It is called review”.

In today’s scientific age the process of study gradually involves scientifically and as the study is research-oriented its outcomes become more useful and reliable. Therefore the investigator has made an attempt to review researches related to educational
achievements and reasoning abilities of the students in this chapter. The following points have been in chided to conduct research on literature in terms of the problem determined in the present study.

- To determine the relevance of literature selected for review.
- The formulation of objectives and methods for review has been prescribed.
- The related references have been logically adjusted with the present study.
- To familiarize with various fields and new streams.
- Insight has been gained by knowing opportunities in own research.
- The significance of the present study has been developed.
- Analytical and integration review has been conducted.

3.3 Sources of Related Literature:

For the study of related research processes literature about Maths, Science, Logic is available. For reviewing reference literature includes identifying references, selection of references, their evaluations drawing out the traits etc. The related literature can be divided into two parts.

- Literature about Concept
- Literature about Past Studies

The investigator has studied the literature about,

- Logic, thinking, reasoning, types of logic difference between thinking and logic, objectives of education of logic, use of logic education.
• I.Q., Types of I.Q., Special capacities, Brain capacities, Rule of Thirstern Aptitude etc.

There are mainly three parts of reference literature

Elementary reference source Primary reference source Secondary reference source

• Elementary reference source:-

This type of reference provides data about researches held in a particular field. The list or articles is obtained from journals like ERIC, CIJE, RIE etc.

Research articles can be obtained from Education Index and Current Data can be obtained from Almanac and Year book. NCERT publications like Education in India, Educational Research are useful.

• Primary reference source:-

It is the source which presents direct report which include professional periodicals, reports, books and thesis, which are published by NCTE, NCERT, NUEPA, UGC etc.

• Secondary reference source:-

Data can be obtained from encyclopedia, biographies etc. In today’s high-tech age Google Scholar, Wikipedia etc. are the search engines which become a big source.

3.4 Importance of Related Literature:-

Before conducting a research it is important and essential for the researcher to study the researches held previously in the field. A research building can be constructed
only on strong foundation of past researches. In today’s age the scope of data is expanding with a rapid pace.

New data are added in every second. Therefore, it becomes essential for a researcher to know from where and how the related data can be found which can guide in a right direction. The review of related literature is not only a highway for a study but it is also an essential aspect of the layout of the study design.

According to Kulbirsingh Siddhu *,

“A review of related literature helps the investigator to get the friendlier in the field of his/her research and develop a research project which will contribute something to the knowledge already existing in the field.”

According to Borg and Gall **,

“The related literature in any field forms the foundation upon which all future work will be built.”

Dr.K.G.Desai says***, “The review of literature is of utmost important for an insight into problem development and study design.”

Thus, review of reference literature is very much necessary for a researcher. The reasons for its use and validity are as given below.

(1) It provides a major role for research.

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* SIDDHU K.S. (1985), METHODOLOGY OF RESEARCH IN EDUCATION, NEW DELHI, STERLING PUBLICATION PVT. LTD.


*** DR. K.G.DESAI, SANSODHAN PADHDHATIO ANE PRAVIDHI (1997), UNIVERSITY GRANTH NIRMAN BOARD, AHMEDABAD.
(2) It provides direction and perspective to a research. It is a lighthouse for a researcher.

(3) The past overviews can develop designs for future studies.

(4) It provides clear data about authentic knowledge and steps about a research.

(5) It provides data about which method, technique will be suitable for the study.

(6) It guides in using suitable tools in a research.

(7) It becomes helpful in logical understanding of data analysis and inference and scientific interpretation.

(8) Unnecessary repetition of proved truths can be avoided.

(9) Recommendation of related researches can be known.

(10) Meaningless and useless things can be removed from the problem field.

### 3.5 Reasons for Review – (Why review?) -

The following reasons present a need to review past studies:

- A researcher is familiarized with the subject.
- A researcher is informed about the research method.
- Tools used by past researchers can be known.
- A researcher can know about errors left out in past studies and avoids such errors in his/her own research work.
- A researcher known about what types of difficulties are passed in the course of a research.
In this chapter the investigator has presented certain past researches which are related to the present study to more or less extent.

### 3.6 A study of previous related researches:

<table>
<thead>
<tr>
<th>(1)</th>
<th>Title of Problem:</th>
<th>“A Comparative Study of the Achievement of Students of Class VII of Ahmedabad in Context of Listening Comprehension in Gujarati.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Name of Researcher:</td>
<td>Pravinbhai I. Patel (B.sc., B.Ed.)</td>
</tr>
<tr>
<td></td>
<td>Year:</td>
<td>April 1997</td>
</tr>
</tbody>
</table>
|     | Objectives:       | (1) To study listening comprehension of students of class VIII of Ahmedabad city.  
                   (2) To study listening comprehension in terms of achievement in Gujarat.  
                   (3) To study listening comprehension in terms of achievement in Sociology.  
                   (4) To study listening comprehension in terms of age of Students.  
                   (5) To study listening comprehension in terms of Gender difference. |
|     | Limitations of Research: | (1) This study is confined to students of std.8 of six schools.  
                (2) Marks obtained in annual exams have been considered as the achievement in respective subjects. |
|     | Sample:           | The present study involves students of std.8 studying in secondary schools of Ahmedabad city. The sample includes 200 students of std.8 of schools situated in |
Maninagar, Paldi, Asarva and Shahpur area of Ahmedabad city. In order to maintain proper proportions of boys and girls, boy’s schools, girl’s schools were selected. The sampling was done by stratified random sampling method.

| Inferences of the research: | (1) **Listening Comprehension:** The mean of scores on listening comprehension of 200 students is 36.47. The students obtaining 30.73 or less scores were considered as low listeners and the students obtaining 44.22 or more scores were considered as high listeners.

(2) **Listening Comprehension and Age:** The critical ratio among the various groups of student comes between 0.20 and 0.91. The critical ratio was not found significant when tested.

(3) **Listening Comprehension and Gender:** The critical ratio of the score obtained on listening comprehension by boys and girls is 0.77 which is not significant. Thus, there was no gender difference in terms of listening comprehension.

(4) The scores obtained by good listeners in Gujarati subject are proportionately higher than the scores obtained by weak students.

(5) The scores obtained by good listeners in Science subject are proportionately higher than the scores obtained by weak students. |
<table>
<thead>
<tr>
<th>(2)</th>
<th>Title of Problem :</th>
<th>A comparative study of knowledge achievement if Geography subject of secondary students of std.8 of Borsad and Anand Taluka.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Name of Researcher :</td>
<td>Rajendra R. Joshi</td>
</tr>
<tr>
<td></td>
<td>Year :</td>
<td>1978</td>
</tr>
</tbody>
</table>
|     | Objectives: | (1) To compare achievements in Geography subject of boys and girls of Borsad taluka and Anand taluka.  
(2) To compare subject achievements of boys and girls of rural and urban area.  
(3) To evaluate achievements of students and draw inferences.  
(4) To construct a reliable test for achievement measurement for student of std.8 for Geography subject for secondary teachers. |
|     | Limitations of the research: | Students of all levels were selected from secondary schools of Borsad and Anand taluka. The teaching method and tools in both talukas were similar. This study was confined 10 Borsad and Anand taluka among the ten talukas of Kheda district of Gujarat state. This study was confined to secondary school students of std.8 of both talukas as the work was to be completed in a certain period of time. |
|     | Samples: | The researcher had selected 5 schools each from Borsad and Anand taluka (Total 10 schools). To make the sample more biased, more than 50 students were selected from each of the sample schools.  
The final test was administered on 497 students in the month of April before annual exams of the schools. The |
answer sheets of boys and girls of rural and urban areas were separated which showed scores obtained in Geography subject by students of Borsad and Anand taluka.

| Inferences of the Research: | (1) Weak and good students could be drawn out separately on the basis of the test.  
(2) These tests were administered after the completion of the whole curriculum.  
(3) Both, time and hard work are needed to construct such achievement tests.  
(4) Attention should be given to prevent students from copying and make them to answer the questions on their own by organizing objective type tests.  
(5) This knowledge achievement has been proved standardized and appropriate to measure the achievement in Geography subject individually for students of std.8  
(6) The teachers should be given guidance and training to make such objective test more and more useful in schools. |

| (3) Title of the Problem: | An effect of scholastic(institutional) environment of Vadodara district. |
| Name of Researcher: | Kanubhai R. Patel |
| Objectives: | (1) To make a comparative study of scholastic environment of secondary schools of Vadodara district. |
(2) What should be the institutional environment in prevalent times?

(3) To study good elements and errors arising out of natural interactions among teachers, students and principals of secondary schools.

(4) To find remedies to remove obstructions in institutional environment.

(5) To find out the effect of environment on effecting of school.

(6) To know mechanisms techniques to develop better environment in school.

(7) To study important factors of institutional (scholastic) environment.

(8) To study scholastic environments of schools or rural and urban area.

**Limitations of the Research:**

(1) This research is confined to the study of scholastic environment in secondary schools.

(2) The responses for the study were obtained from school teachers and principals by questionnaires.

(3) The institutional environment includes external factors like Management Body, District Education Officer, Social Norms and Values, Government Education System, Students Attitudes etc. which have not been included in this study.

(4) For data collection the questionnaire by Calium and Croft was used.

(5) The researcher has collected data from most of the schools of Vadodara district, but due to inadequate
cooperation from them the study could not be completed properly.

**Sample:**
The sampling was done by stratified method which included socio-economical status for both urban and rural schools.

**Inferences of the Research:**

1. 17.5% or 20 secondary schools of Vadodara district have free environment. The principals of such schools always show good conduct and behavior. There is a friendly atmosphere among teachers, students and principal. The resistances are found in less proportion in such schools. Teachers show distinct encouragement and joy in doing work. Principal do not overload them with work, but teachers demand work from principals. They believe in collective work. Teaching-learning work occurs on the foundation of mutual trust.

2. 12 schools have free environment, principals, teachers and students work collectively with cooperation.

3. 10% or 4 schools work in controlled atmosphere. Principals have more powers and there is less interaction between principal and teachers.

4. 5 schools have familiar atmosphere. On such types of school the principal helps teachers in their tasks, and the interaction is friendly in such schools.

5. Schools having free environment make good progress in education field.

6. In schools having closed environment the principals have business capabilities.
(7) Teachers of free schools are dynamic, hard working, faithful and harmonious. They are responsible and bold natured individuals.

(8) In urban and rural schools there is more uniformity in terms of facilities, tools, materials and development.

(9) Big schools have a confined or controlled environment. The social needs of teachers, parents an students are not satisfied in such schools.

(10) Small schools have open and free environment. They have natural interactions and close relationships.

<table>
<thead>
<tr>
<th>(4) Title of Problem:</th>
<th>A study of students achievement in higher secondary schools of Science stream in the district of Kheda.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Researcher:</td>
<td>Kantilal S. Patel</td>
</tr>
<tr>
<td>Year :</td>
<td>April 1983</td>
</tr>
<tr>
<td>Objectives:</td>
<td>(1) To study about facility if library on higher secondary schools of Science stream in Kheda district and find out its effect on educational achievement.</td>
</tr>
<tr>
<td></td>
<td>(2) To study about facility of physics laboratory in higher secondary schools of Science stream in Kheda district and find out its effect on educational achievement.</td>
</tr>
<tr>
<td></td>
<td>(3) To study about facility of Chemistry laboratory in higher secondary schools of Science stream in Kheda district and find out its effect on educational achievement.</td>
</tr>
<tr>
<td></td>
<td>(4) To study about facility of Biology laboratory in higher secondary of Science stream in Kheda district and found out its effect on educational achievement.</td>
</tr>
</tbody>
</table>
(5) To study about professional equippedness of teachers working in higher secondary schools of Science stream in Kheda district and find out its effect on educational achievement.

(6) To prepare guidelines for more development and improvements in higher secondary schools of Science stream in the basis of the inferences of the study.

| Limitations of Research: | (1) This study is confined to Kheda district.  
(2) Out of 22 higher secondary schools having Science stream in Kheda district one schools had started in 1982, therefore the remaining 21 schools were included in the study.  
(3) This study is confined to schools having Science stream.  
(4) This study does not include other subjects like mathematics, languages etc.  
(5) This study does not include Physical facilities of schools. |
|-------------------------|-------------------------------------------------|

<table>
<thead>
<tr>
<th>Sample:</th>
<th>Almost all schools having Science stream have been included in the sample. As started above, one schools has been excluded from the sample. The sample includes 11 urban schools and 10 rural schools. Most rural schools have 15 and 14 classes respectively of std.11 and 12. The R.P.T.P. schools, Vallabhvidyanagar has a big educational complex having 1864 students whereas The C.M.Desai Higher Secondary School has least number (50) of students.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Inferences of the Research:</th>
<th>(1) There is no relation between the library and results in Physics subject.</th>
</tr>
</thead>
</table>
(2) There is no correlation between equippedness of teachers and the results in Physics subject.

(3) There is no correlation between facility of Physics laboratory and results of Physics subject.

(4) There is no relation between library and results in Chemistry subject.

(5) There is no correlation between teachers equippedness and results in Chemistry subject.

(6) There is no relation between facilities of Chemistry laboratory and results in Chemistry subject.

(7) There is no correlation between library and results in Biology subject.

(8) There is no relation between teachers equippedness and results in Biology subject.

(9) There is no relation between facilities of Biology laboratory and results in Biology subjects.

(10) There is no relation between library and total results.

(11) There is no relation between teachers equippedness and total result.

(12) There is no relation between facilities of library and total results

(5) Title of Problem: A study of relation between reasoning ability and intelligence of students of std. 8 (VIII)

Name of Researcher: Jayeshkumar R. Patel

Year: May 1987

Objectives: (1) To study the reasoning ability of students of std. 8.
(2) To make a comparative study on reasoning abilities of boys and girls of std.8.
(3) To find out Intelligence Quotient (IQ) of students of std.8.
(4) To make a comparative study of IQs of boys and girls of std.8.

| Hypothesis: | (1) There will be no difference between reasoning abilities of students of urban and rural areas.
(2) There will be no difference between intelligence quotients of students of rural and urban areas.
(3) There will be no relation between reasoning ability and intelligence quotient.
(4) There will be no difference between reasoning abilities of boys and girls.
(5) There will be no significant difference between reasoning abilities of students having high IQ and low IQ. |
|---|---|
| Tools: | (1) **Reasoning Test:** Group reasoning test developed by Dr. C.C.Pathak is a pictorial and verbal test prepared on experimental experience for students of std.8 to 10 in the age group of 14 to 17 years.
(2) **Answer Sheet:** The sheet given to obtain responses of students on “Group Reasoning Test”.
(3) **Intelligence Test:** Dr. K.G.Desai group intelligence test and Gujarati version of standardized verbal-nonverbal test. |
| Sample: | Sample was selected by cluster method.
(1) Kheda district was selected among various district of Gujarat State. |
(2) Petlad taluka was selected among various taluka of Kheda district.
- 4 schools of rural area.
- 4 schools of urban area.
- 75 boys & 75 girls of std.8 in the age group of 12 to 13 years.
- 75 boys & 75 girls of urban schools.
- 75 boys & 75 girls of rural schools.
- 300 students as the sample.

**Inferences of the Research:**

1. The students of urban areas are superior than the students of rural areas in terms of reasoning ability.
2. The students of urban areas are superior than students of rural areas in terms of intelligence ability.
3. The coefficient of correlation between reasoning ability and intelligence quotient is 0.61. Therefore it can be said that there is a correlation between reasoning ability and intelligence quotient.
4. Boys have high reasoning ability than girls.
5. Boys have high intelligence ability than girls.
6. Students having high IQ have high reasoning ability that students having low IQ.

(6) **Title of Problem:**
An adaptation of cattell’s high school personality questionnaire for Gujarati children of ages through 12 to 18

**Name of Researcher:**
R.N.Thakur
<table>
<thead>
<tr>
<th><strong>Year</strong></th>
<th>The researcher submitted journal in December-1988</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University</strong></td>
<td>Gujarat University</td>
</tr>
<tr>
<td><strong>Degree</strong></td>
<td>Dr. R.N.Thakur had researched this topic for the degree of Ph.D.</td>
</tr>
</tbody>
</table>
| **Objectives** | Objectives of the study was to translate HSPQ, adapt in to the socio-cultural environment of Gujarat State & to standardizes it as a useful instrument for measuring personality of children of ages 12 through 18  
(i) There would not be significant difference between means on two different forms A & B.  
(ii) There would not be significant sex difference between the two means on each factor of HSPQ.  
(iii) There would not be significant difference between means of two age group, namely 12-0 to 14.5 & 14.6 to 18 |
| **Area & Sample** | The area to be covered for testing this investigation was carried out single handed so all the efforts were put forth to secure representative sample of Gujarati population of the main cities-district, head-quarters & main-towns taluka places of Gujarat. Sample was chosen without any error by the method of rational choice.  
Method was random sampling |
| **Instrument** | Cattell’s Personality Questionnaire (for children up to 12 to 18) |
| **Conclusions** | (i) Out of 280 items 235 items were found significant at 0.01 level & only 45 items at 0.05 level there for the test consists of all valid & internally consistent items for each factor.  
(ii) Items of the test possess moderate validity & represent |
measure of same personality factor.

(iii) Both the HSPQ & 16 PFQ were administered to a sample of 80 subjects of grades XI & XII & correlation of 12 factors were common in both tests.

<table>
<thead>
<tr>
<th>(7)</th>
<th><strong>Title of Problem:</strong></th>
<th>Adaption of the Wechsler adult intelligence scale for Gujarati population.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Name of Researcher:</strong></td>
<td>Thesis Submitted by Pinaben Himmatlal Sheth</td>
</tr>
<tr>
<td></td>
<td><strong>Year:</strong></td>
<td>1979</td>
</tr>
<tr>
<td></td>
<td><strong>University:</strong></td>
<td>Gujarat University</td>
</tr>
<tr>
<td></td>
<td><strong>Degree:</strong></td>
<td>For the degree of Ph.D.</td>
</tr>
<tr>
<td></td>
<td><strong>Objectives:</strong></td>
<td>(i) To test the intelligence by the Wechsler adult intelligence scale.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(ii) To check validity &amp; reliability of the scale.</td>
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<td></td>
<td></td>
<td>(iii) Compare this scale I.Q.s of different test I.Q.s</td>
</tr>
<tr>
<td></td>
<td><strong>Area &amp; Sample:</strong></td>
<td>For uniformity &amp; more reliable date, administering the tests was carried out totally by the investigator herself. The investigator administered the test at different places like factories, offices as well as individual persons. Total 400 persons were tested by the investigator. The persons &amp; firms were chosen by random sampling from literate persons of Ahmedabad City.</td>
</tr>
<tr>
<td></td>
<td><strong>Instrument:</strong></td>
<td>The Wechsler adult intelligence scale was used for Gujarati population.</td>
</tr>
<tr>
<td></td>
<td><strong>Conclusions:</strong></td>
<td>(i) It is observed that most principal factor is the general educative factor G.</td>
</tr>
</tbody>
</table>
(ii) Both the methods give similar results, rotation was done only on factors derived by the principal factor method.
(iii) Second factor is chosen’s perceptual organization.
Third factor is chosen’s verbal comprehension.

<table>
<thead>
<tr>
<th>Title of Problem:</th>
<th>Adaption of the Stan for-binet intelligence scale for the Gujarati population.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Researcher:</td>
<td>Jayantilal Hiralal Shah, Principal, College of education, Petlad. Guided by Dr. K.G. Desai.</td>
</tr>
<tr>
<td>Year:</td>
<td>1970</td>
</tr>
<tr>
<td>University:</td>
<td>Gujarat University</td>
</tr>
<tr>
<td>Degree:</td>
<td>Thesis was submitted for the Ph.D. Degree in Education.</td>
</tr>
</tbody>
</table>
| Objectives: | (i) To test the IQs of the population in different age groups.  
(ii) To standardize the scale.  
(iii) To estimate the reliability & the validity of the scale. |
| Area & Sample: | • In the present investigation, a method of stratified sampling was adopted to secure the sample. Three variables age, sex & education governed the stratification.  
• Children of the ages 2+ & 2.5+ were selected from investigators friends & relatives.  
• Children of age groups up to 7+ were selected from different primary schools situate in Raipur, Sarangpur & Khadia of Ahmedabad.  
• All the selected pupils between the ages of thirteen & sixteen from the above schools |
Instrument : Stan for-binet intelligence scale.

Conclusion :
(i) Distribution of I.Qs for age 19 & 20

<table>
<thead>
<tr>
<th>I.Qs</th>
<th>Age – 19</th>
<th>Age – 20</th>
</tr>
</thead>
<tbody>
<tr>
<td>140-145</td>
<td>-------</td>
<td>1</td>
</tr>
<tr>
<td>135-139</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>130-134</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>125-129</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>120-124</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>115-119</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>110-114</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>105-109</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

(ii) The present adaption satisfies a long felt need for having an up-to-date validating criterion to validate other group tests of intelligence in Gujarati.

(iii) M.C.Bhatt & this both the scales show the correlation of 0.73 betw the S-B & the wise full scale I.Qs, those betw the S-B I.Qs and the verbal as well as the performance I.Qs are the same & is 0.65, the S-B scale is highly loaded with verbal factor.

Title of Problem : Construction & standardization of a verbal Reasoning Test for the pupils of std.X of secondary schools of Gujarat state.

Name of Researcher : Proff. Archana T. Amin,
Vaidhya shri M.M.Patel college,
Ahmedabad.

Year : October-2005

University : Gujarat University

Degree : A thesis submitted for the degree of Doctor of philosophy in Education.

Objectives : (1) To construct items if verbal reasoning test for students of std.8, 9 and 10.
(2) To analyze the items of verbal reasoning test for students of std. 8, 9 and 10.
(3) To test reliability of verbal reasoning test of students of std. 8, 9 and 10.
(4) To test validity of verbal reasoning test of std. 8, 9 and 10.
(5) To establish norms for verbal reasoning test for students of std. 8, 9 and 10.
(6) To find out the effect of gender on scores obtained on verbal reasoning ability test.
(7) To find out the effect of standard on scores obtained on verbal reasoning test.
(8) To find out the effect of area on scores obtained on verbal reasoning test.

**Area & Sample:**
Area is all the secondary schools of Gujarat state. 12 schools of city Area & 13 school of rural area were selected & classes we selected by cluster sampling method. About 3600 students were selected.

**Instrument:**
Self developed.

**Conclusion:**
(i) There is no significant difference between reasoning ability of boys & girls of std. 8
(ii) There is no significant difference between reasoning ability of boys & girls of std. 9
(iii) There is no significant difference between reasoning ability of boys & girls of std. 10
(iv) There is significant difference between logical ability of boys & girls. Logical ability of boys are more than girls in std. 10 in city area.
(v) Logical ability of std. 8 girls is more than that of boys in semi city area.
(vi) Logical ability of std. 9 girls is more than that of boys in semi city area.
(vii) There is no significant difference in logical ability of boys & girls of std. 10 of semi city area.
(viii) There is significant difference between logical ability of std. 10 boys & girls. Logical ability of boys is more than girls. It depends on sex.
(ix) Logical ability of std. 9, 10 are more than std. 8.
(x) Logical ability test is completely reliable & valid, co.relation with R.S.Patel logical ability test is 0.67 & that of J.H.Shah logical ability test is 0.62

<table>
<thead>
<tr>
<th>(10)</th>
<th>Title of Problem:</th>
<th>A study of the causes to select the educational area of higher secondary school’s students.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Name of Researcher :</td>
<td>Prajapati Piyush V.</td>
</tr>
<tr>
<td></td>
<td>Year :</td>
<td>March – 2010</td>
</tr>
<tr>
<td></td>
<td>University :</td>
<td>Gujarat University</td>
</tr>
<tr>
<td></td>
<td>Degree :</td>
<td>For the dissertation degree of M.Ed.</td>
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<td></td>
<td>Objectives :</td>
<td>(i) To know the reasons of choice of stream of higher secondary school students.</td>
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<td>(ii) To know the reasons of choice of science stream of higher secondary school students.</td>
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<td>(iii) To know the reasons of choice of commerce stream of higher secondary school students.</td>
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<td>(iv) To know the reasons of choice of arts stream of higher secondary school students.</td>
</tr>
</tbody>
</table>
(v) To compare the reasons of stream choice of different streams.
(vi) To know the effect of sex on reason of choice of stream in higher secondary students.
(vii) To know the effect of area on reasons of choice of stream in higher secondary students.
(viii) To compare the reason of stream choice of boys & girls in higher secondary schools.
(ix) To compare the reason of stream choice of boys & girls in higher secondary schools of boys of urban & rural areas.
(x) To guide the students for stream choice.
(xi) To guide the parents for stream choice.

<table>
<thead>
<tr>
<th>Area &amp; Sample :</th>
<th>Two schools from city area &amp; two schools from rural area of Ahmedabad City.</th>
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<tbody>
<tr>
<td>Instrument :</td>
<td>Self developed.</td>
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<tr>
<td>Conclusions :</td>
<td>For the choice of science stream the reasons were</td>
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<tr>
<td></td>
<td>(i) There are more opportunities in this field.</td>
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<td>(ii) To join Medical &amp; Engineering field.</td>
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<td>(iii) More opportunities for job.</td>
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<td>(iv) In recent year due to more importance of science.</td>
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<td></td>
<td>For the choice of commerce stream the reasons were</td>
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<tr>
<td></td>
<td>(i) More opportunities of carrier in this field.</td>
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<td></td>
<td>(ii) Interest in calculative subjects.</td>
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<td></td>
<td>(iii) More job opportunities.</td>
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<td></td>
<td>(iv) In recent years, due to more importance of commerce.</td>
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<td></td>
<td>(v) Interest in writing the accounts.</td>
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</tbody>
</table>
For the choice of arts stream the reasons were
(i) More interest in reading.
(ii) More interest in language subjects.
(iii) More interest in literature.
(iv) More job opportunities.
(v) More career opportunities.

**Instructions:**
To avoid the stream choice
(i) On obstruct base.
(ii) Students must choose the stream on base mental ability & physical ability.
(iii) Teachers should guide the students appropriately.
(iv) Parents should not pressurize the students for stream choice.
(v) Teachers & Parents should give the guidance according to their capacity & aptitude.

**Title of Problem:**
A study of career Awareness Among the pupils of secondary schools of Ahmedabad City.

**Name of Researcher:**
Hiral N. Jadiya

**Year:**
February – 2010

**University:**
Gujarat University

**Degree:**
Dissertation for the degree of M.Ed.

**Objectives:**
(i) To study the career awareness of secondary schools students.
(ii) To choose the career awareness in accordance with sex.
(iii) To check the career awareness in accordance with standards.
(iv) To check the career awareness in accordance with area.

**Area & Sample :**
Researcher has divided Ahmedabad city in two zones. East & West. Two schools from east zone & two schools from west zone were selected.
75 Students of each school were selected, Total 300 students were taken as sample from which 150 of east zone & 150 of west zone.

**Instrument :**
Self prepared opinion questionnaire.

**Conclusions :**
(i) 92.33% students are aware about career.
(ii) 66.33% students are directed by some ones in career choice.
(iii) 66% students were required for a particular career.
(iv) 26.33% students realize that they have not the skill according to their career.
(v) 78.67% students are in the career which is chosen by the parents.

<table>
<thead>
<tr>
<th>(12) Title of Problem:</th>
<th>A study of opinion towards academic career of the students of higher secondary of Karajan Taluko.</th>
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<tbody>
<tr>
<td>Name of Researcher :</td>
<td>Raj Hetalben R.</td>
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<tr>
<td>Year :</td>
<td>March – 2010</td>
</tr>
<tr>
<td>University :</td>
<td>Gujarat University</td>
</tr>
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<td>Dissertation for the degree of M.Ed.</td>
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<td>Objectives :</td>
<td>(i) To study the opinions about academic career of higher secondary school students.</td>
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<td>(ii) To study the opinions about academic career of higher</td>
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</tbody>
</table>
secondary school students in accordance with sex. 
(iii) To study the opinions about academic career of higher secondary school students in accordance with area.

| Area & Sample : | Investigator had chosen the Gujarati Secondary & H.S. Schools of Karajan Taluka. 4 Schools of city & 2 schools of rural area were chosen. |
| Instrument : | Self developed |
| Conclusions : | (i) Career awareness is same in boys and girls.  
(ii) Students of city area are very clear compared to rural area in opinion of career awareness. |

| (13) Title of Problem : | Construction & Standardization of an abstract reasoning test for the students in grade VIII & IX of the secondary schools of Saurastra. |
| Name of Researcher : | Banker H.R. |
| Year : | 1981 |
| University : | Saurastra Universiry, Rajkot. |
| Degree : | Ph.D |
| Objectives : | To construct & standardize an abstract reasoning test. |
| Area & Sample : | The Sample included 5277 students of 91 different schools of 49 different places of Saurastra. |
| Instrument : | Self constructed reasoning test. |
| Conclusion : | The test was found to be quite reliable & highly valid. In this study different sub-groups, were not found to be significantly related to abstract reasoning. Significant sex & grade differences in reasoning were observed. |
### 3.7 Review of Related Researches:

- Pravinbhai Patel has done the comparative study of std.VII students for listening.
- Rajendra Joshi has studied the achievement in Geography of std.8 students.
- Kanubhai R. Patel had studied school atmosphere on the achievement.
• Kantilal has studied achievement in terms of library & laboratory.

• Jayeshkumar has studied Reasoning ability & I.Q. of std. VII.

• Pinaben has adapted Wechsler adult scale for Gujarati population.

• Archnaben constructed verbal reasoning test for std.X students.

• Piyushbhai studied the causes to select the educational area.

• Hiralben studied career awareness.

• Hetalben studied the opinion towards academic career.

• Banker H.R. constructed an abstract reasoning test.

From the above review the conclusion is that more or less everybody had either tried to measure achievement, or tried to know the career awareness or opinion or they had tried to construct the reasoning test. In one or two cases they have tried to measure reasoning ability or I.Q. also, but no study has been done to improve the achievement. No one has thought about the improvement in achievement.

3.8 Significance of this study:-

After review of the concerned literature, the researcher has observed that attempt to study the achievement has been done. But none attempt to improve the achievement has been done. Attempt to know the opinion of career is also done from the study. I realized that due to lack interest in subject, lack of guidance & lack of ability the students were weak in achievement. So the researcher has tried to measure the reasoning ability & intelligence and from this score tried to guide the students for stream selection, so that the
achievement of the students will increase. So the special thing of this study is that in this study not only measurement of intelligence & reasoning ability has been done but it is used for the guidance of stream selection so that drop out ratio and depression of the students can be reduced as well as achievement can be increased.

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