CHAPTER III

METHOD AND PROCEDURE

CONTENTS

CHAPTER III

METHOD AND PROCEDURE

3.1 INTRODUCTION

In order to make the present study yielding results, the investigator consulted all available literatures on the subject to equip herself with experiences to probe into the subject scientifically and systematically. The present chapter is devoted to the method and procedure adopted to make the study a success.

3.2 RESEARCH METHOD

Out of the research methods suggested by most of the authors on research methodology, the Normative Survey Method was chosen for the present study. According to Sukhia and Mehrotra (1963), the Normative Survey Method aims at the collection of three types of informations:

(A) Of what exists, by studying and analysing the important aspects of the present situation.

(B) Of what is wanted, by clarifying the goals and objectives, possibly through a study of conditions existing elsewhere or what the experts consider to be desirable.

(C) Of how to get these, through discovering the possible means of achieving the goals on the basis of

others, or the opinion of the experts.

Considering the objectives of the present study, the survey method was considered as the most suitable one.

3.3 STATEMENT OF THE PROBLEM

The topic, thus, selected for the present study reads as:

> "An Inquiry into Reading Interests of the Pupils of Standards VIII to X, in Relation to Intelligence, Socio-Economic Status and Academic Achievement".

3.4 CONCEPTUAL AND OPERATIONAL DEFINITIONS OF THE TERMS USED IN THE STUDY

Inquiry:- Search, to investigate, to look into.

In the present study, the term is used to mean a scientific investigation or research.

Reading:- Reading is a communication skill and as such bears powerful influence on human life. In the field of education, it is regarded as a sub-area to language.

As with the proverbial blind men and the elephant; writers and thinkers define reading in different ways. In the beginning a narrow conception prevailed which emphasized only on recognition of printed or written symbols in

the process of reading. Gradually with the advance in research and studies in reading broader outlooks emerged. Recognition of meaning was accepted as an important element in reading.

Today reading is regarded as a much more complex process which involves not only perception and recognition of words, but also reflections on their significance, critical evaluation, discovering relation between them and lastly to apply it in solving various problems of life.

Gray (1937) pointed out that there are eight view points on reading which may be likened to the facets of a cut gem. The brilliance of the total is dependent upon the perfection of each facet. The figure below explains it.

FIG. 3.1

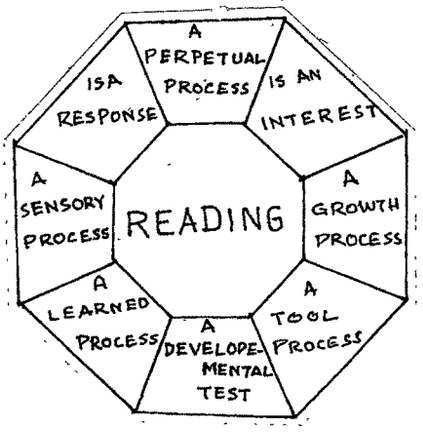

FIGURE SHOWING DIFFERENT VIEW POINTS ON READING

However, it should be remembered that these facets are interrelated and reading can be better understood by understanding these interrelationships.

A recent monograph in reading (1976) has defined reading as follows:

> Reading is the process of grasping the message conveyed in written symbols (comprehension following decoding), determining what the message means (interpretation following literal comprehension) and determining what the message means for a particular situation (application following interpretation).

Carrillo (1976) rightly summarised the opinions of various writers on the nature of reading as follows:

1. Reading is purely a mechanical process involving:

   (a) reader's accuracy in recognizing and attacking a word;

   (b) the amount of print recognized at each fixation of the eyes;

   (c) the rate of recognition of words and phrases;

   (d) rhythmic process along the line of print and an easy return to the following line.

2. Reading is a mechanical process plus the acquisition of meaning.

3. Reading is a combination of mechanics, understanding, retention and use.

In the present study, the investigator considers reading as a complex process, consisting of perception of words, a clear grasp of meaning, a thoughtful reaction and integration.

Interest:- J. J. Rousseau during later part of eighteenth century emphasized the place of interest in the education of "Emile", and since then educationists are concerned about exploring, developing and utilizing children's interests in and through education.

Interest has been defined by educationists and psychologists as preferences, drives, feeling of satisfaction or mental exilations. Dictionary on psychology tells us that interest has a variety of meaning including - "The tendency to give selective attention to something", and "A tendency to engage in an activity solely for the gratification of engaging therein".

Miles and Constance (1962) maintained that interest patterns are learned tendency, to respond selectively, positively and with accompanying satisfaction to certain features of environment. These encourage a person to participate eagerly in a particular game, to read a book, etc.

There are some factors which affect very much upon an individuals interests. Getzel (1956) pointed out the following determinants of interests: (i) constitutional

or physical capabilities, (ii) inborn qualities, (iii) personality structure, (iv) various socio-cultural factors, (v) role requirements of a person, (vi) family influence, and (vii) accidental events.

In the present study by the term "Interest" the investigator means concern or preference shown by individuals for any particular object or class of object.

Reading Interest: The effect of interest in specific reading material is obvious both in classroom and daily life. Students' response willingly and quickly to the subject matter in which they are interested. It is observed sometimes that pupils can read even difficult materials judged by criterias as vocabulary and sentence construction if it is to their interest.

There is no clear cut definition of the term "Reading Interest". Carrillion (1976) maintained that "Reading Interest is the result of personal interaction between the individual and the reading material". Reading interests and other life's interests are highly related.

Brunner and Campbell (1978) quoted Jacob (1972) who in his speech at the meeting of International Reading Association (I.R.A.), while discussing reading interests of adolescents, pointed out that there are three types of reading interests in individuals, regardless of age and sex. The first one is called "Interest curiosity" in

which level individual becomes curious by a book title, cover or advertisement about the book. The second type of reading interest is called "Interest concern". On the basis of curiosity if one actually buys or borrows a book and read some part of it for evaluation, it is interest concern. The third level is "Interest commitment". The individual after being curious and concerned about a particular book takes it home, and reads the book in one night. Next day, he asks for another book of the same author. This may go on for a week or a month. Suddenly, being satisfied with or having exhausted a particular author's work, he stops reading for a period. This is the case of "Interest commitment". However, it should be remembered here that these three levels of interest are not static but flexible depending upon an individual's mental and social needs.

In the study undertaken the investigator used the term "Reading Interests" to mean preferences shown by children towards extra-reading that is reading of books, journals and other materials outside school reading. It is a voluntary or free reading of reading materials other than the text books.

Standards:- Academic or school grades of pupils.

Intelligence:- Intelligence is the most used and abused word in the field of psychology. The effect of intelligence on reading and reading interest is very

great. Very often the child with high intelligence can fare better inspite of physical handicaps, emotional disturbances and low socio-economic status.

There are as many definitions on intelligence as there are writers on it. These definitions may be summarised under the following four categories:

(i) Intelligence is what the intelligence test measures. Here intelligence is regarded as synonymous for intelligence quotient.

(ii) It is an efficient problem solving ability.

(iii) Intelligence is a power of understanding and the ability to think abstractly.

(iv) It is an ability to adopt oneself to different situations of life.

Thus, intelligence is such a complex factor that there is little agreement among psychologists regarding its definition. Freeman has, however, classified these definitions under four categories:

(i) Definition emphasizing the learning ability of an individual. One sample of such definition is given by Buckinghum who defined intelligence as "the ability to learn".

(ii) Definitions stressing the ability to do

10 abstract thinking. For example, the definition by Terman - "An individual is intelligent in proportion as he is able to carry on abstract thinking".

(iii) Definitions which put emphasis on the adjustment or adoption of the person to his total environment or aspects of it. As a sample definition given by William Stern - "Intelligence is a general capacity of an individual consciously to adjust his thinking to new environments".

(iv) Definitions which combine and enlarge on the above three types of definitions. Wechslet's definition may be quoted here - "Intelligence is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment".

For the present study, intelligence will be regarded as the capacity for logical thinking. Because even if we define intelligence comprehensively, we can hardly get a single test to measure all the qualities. Therefore, Madhukar Patel's intelligence test which measures students' logical thinking capacity will be used to measure intelligence of the students. The total score

achieved by the student will be considered as the index of his mental level. In short, IQ (Intelligence Quotient) acquired for each child will be treated as equivalent to his intelligence.

Socio-Economic Status: S.E.S. of the parents has great influence upon a child's personality development. Many educationists and psychologists believe that the child's economic background and resultant social position he attains has much to do with his self-respect, mental development, and consequently his reading and reading interests.

The increasing importance of the knowledge of social background of the individual emphasizes the need for measuring this variable in the last decade or two. The attempts to measure S.E.S. are based on three assumptions:

(a) That there is class-structure in the society.

(b) That status position is determined mainly by few commonly accepted symbolic characteristics.

(c) That these characteristics can be measured and analysed by using statistical procedures.

On the basis of all these assumptions the importance of S.E.S. has been considered in the field of

12 reading interests of the students. Children from limited financial means are unable to spend on buying books, magazines, etc. for extra reading, while those from affluent section can do it easily. Again there are also homes where money is in shortage, but where 'reading' is given high status. The child coming from such homes may grow into a good reader in future. In fact, the child who belongs to a home, where books are provided, but are not numerous as to loose their values, in the way other material possessions are also supplied, is the most fortunate one and children from such environment will be avid readers, reading both for knowledge and recreation.

The NCERT in the Journal of Reading (1966) emphasized that socio-economic differences of parents have great effect upon interest development of children. Generally, families with better economic condition can offer their children various kinds of reading materials for broadening and deepening of reading interests whereas families with limited sources are unable to do so.

Here, in the study, the investigator used the term S.E.S. to mean socio-economic status that is the position an individual or a particular family occupies in the society.

Academic Achievement: Whenever a child is admitted into a formal educational process, he is destined to acquire certain achievements which are generally known as

academic achievements. These are the gains that a child gets as a result of schooling. Achievement may be high, low or average depending upon his capabilities, the type of coaching he receives, and the kind of evaluation done by teachers from time to time.

In the present study, the investigator will consider the percentage of total marks obtained by each child in annual examination of the academic year, as his academic achievement.

3.5 OBJECTIVES OF THE STUDY

(i) To inquire into Reading Interests of pupils of standards VIII, IX and X.

(ii) To find out relationship between Reading Interests and standards(grades) of the pupils.

(iii) To find out relationship between Reading Interests and age of the pupils.

(iv) To find out relationship between Reading Interests and sex of the pupils.

(v) To find out relationship between Reading Interests and Intelligence of the pupils.

(vi) To find out relationship between Reading Interests and socio-economic status of the pupils.

(vii) To find out relationship between Reading

14 Interests and academic achievement of the pupils.

(viii) To find out the difference in Reading Interests among the three standard groups.

(ix) To find out the difference in Reading Interests among the three age groups.

(x) To find out the difference in Reading Interests among the two sex groups.

(xi) To find out the difference in Reading Interests among the three intelligence groups.

(xii) To find out the difference in Reading Interests among the three S.E.S. groups.

(xiii) To find out the difference in Reading Interest among the three academic achiever groups.

3.6 HYPOTHESES

The investigator formulated the following hypotheses on the basis of the findings of some previous studies:

(i) There is reading interests among the pupils of standards VIII, IX and X.

(ii) There is no relationship between reading interests and standards (grades) of the pupils.

(iii) There is no relationship between reading

interests and age of the pupils.

(iv) There is no relationship between reading interests and sex of the pupils.

(v) There is no relationship between reading interests and socio-economic status of the pupils.

(vi) There is no relationship between reading interests and intelligence of the pupils.

(vii) There is no relationship between reading interests and academic achievement of the pupils

(viii) There is no difference in reading interests among age groups.

(ix) There is no difference in reading interests among sex groups.

(x) There is no difference in reading interests among grade groups.

(xi) There is no difference in reading interests among different intelligence groups.

(xii) There is no difference in reading interests among S.E.S. groups.

(xiii) There is no difference in reading interests among academic achiever groups.

16 3.7 LIMITATIONS OF THE STUDY

The study had the following limitations:

(a) The study was limited to secondary schools of Baroda city alone.

(b) The study had to be limited to students of standards VIII, IX and X of English medium schools alone due to language difficulty of the investigator. (The investigator being non-Gujarati).

3.8 THE PROCEDURE

After setting the objectives of the study and hypotheses to take care of, the investigator adopted the following procedure for selection of the sample, research tools, and collection of data, etc. The procedure, therefore, can be divided into the following three steps:

(A) Selection of the sample.

(B) Selection and construction of the tools.

(C) Administration and scoring of the tools and collection of the data.

.7

(A) Selection of the Sample

(i) Selection of the Schools

In order to inquire into reading interests of secondary level students, the first step was to select the schools, from where the data to be collected. In the city of Baroda, there are many high schools, but due to language difficulty of the investigator (the investigator being non-Gujarati), schools teaching through English medium was selected. There are about fifteen English medium secondary schools in Baroda city, managed by the Central Government, State Government, as well as Private Bodies. Of these, ten schools were selected randomly. However, care was taken to see that these schools represent the population from the whole of the Baroda city.

(ii) Population

Population, in the present study, comprises of all students of secondary level, that is pupils of standards VIII, IX and X of English medium schools of Baroda.

(iii) Sample

In order to arrive at the expected results, the sample has to be drawn very carefully. The most important consideration regarding the sample is that it should be representative of the total population; and that bias should not play any role in selecting the sample. Again, the sample

in a survey method should be large enough as to yield reliable results. The most commonly used sampling methods as quoted by Garrett are - random, stratified or quota, incidental and purposive.

For the present study, the investigator selected random sampling, to get unbiased cross section of the larger group or the population. While selecting this method, the investigator had in her mind, the various advantages of the random sampling in a survey method of study. They are:

(a) Every individual in the population has the same chance of being chosen for the sample.

(b) Selection of one individual in no way influences the choices of another.

Garrett (1969) pointed out that if we draw samples, at random from the population, we know at least that:

(a) there will be no consistent biasness.

(b) on the average these samples will be representative.

(c) the degree of discrepancy likely to occur in any given sample can be determined by probability methods.

In random sampling method samples can be drawn by following "The Fisher-Yates Table", by taking out every fifth or tenth number from the filed catalogued population or by lottery method.

19

In the present study, the investigator selected twenty to twentyfive students from each standard randomly from class register with the help of lottery. Care was taken to select equal number from both the sexes wherever it was possible. Each standard consisted of pupils of heterogeneous quality and hence the traits of the population were normally distributed and the sample could be considered as adequate and representative.

The nature of distribution of the samples are shown through the tables given below:

TABLE 3.1

Standardwise Distribution of the Sample

Sr.No.	Std.	No.of pupils
1	VIII	235
2	IX	233
3	X	211
Total		679

TABLE 3.2

Agewise Distribution of the Sample

Sr. No.	Age.	No. of pupils
1	12 - 13 yrs.	275
2	14 yrs.	226
3	15 yrs.and above	178
Total		679

TABLE 3.3

Sexwise Distribution of the Sample

Sr.No.	Sex	No.of pupils
1	Male	343
2	Female	336
Total		679

TABLE 3.4

Socio-Economic Statuswise Distribution of the Sample

Sr.No.	S.E.S.	No. of pupils
1	High	159
2	Middle	365
3	Low	155
Total		679

TABLE 3.5

Academic Achievementwise Distribution of the Sample

Sr.No.	Achievement level	No.of pupils
1	High	131
2	Middle or Average	445
3	Low	103
Total		679

TABLE 3.6

Intelligencewise Distribution of the Sample

Sr.No.	Intelligence level	No.of pupils
1	High	534
2	Average	127
3	Low	18
Total		679

(B) Selection and Description of the Tools

To investigate into any problem, and to arrive at some conclusion, one must use adequate tools to measure the variables undertaken for the study. The investigator after referring appropriate literatures on the dependent and independent variables of the present study, selected two readymade standardized tools - one for measuring intelligence and the other for socio-economic status. To asses's reading interests of the students of secondary level, no readymade tool was available. Therefore, the investigator had to construct one questionnaire for the same. The following tools were finally selected and used in the present study:

(i) A questionnaire was constructed by the investigator to assess reading interests of the pupils of standards VIII,IX and X.

2 (ii) The M.P.I.T. or Madhuker Patel's Non-Verbal Intelligence Test to measure intelligence.

(iii) The Socio-Economic Status Scale by Pareek and Trivedi, to measure S.E.S.

(iv) Total marks acquired by each student in the previous annual examination of the school were collected from the school record to have academic achievement of the pupils.

(v) The students were asked to provide information or bio-data regarding standard (grade), age and sex in the coverpage of the questionnaire on reading interests.

(i) Construction of the Questionnaire on Reading Interests

As no readymade tool was available to measure reading interests of the pupils of standards (grades) VIII to X, the investigator had to construct one questionnaire for the same. The following steps were followed to construct and validate this tool.

1. In the initial stage, references were made to research methodology books to get first hand knowledge regarding the norms to be followed in constructing an interest inventory. Related literatures on reading interests and previous studies done abroad and in India were referred for getting a clear concept.

2. In order to get first hand knowledge regarding interests of students in various reading materials other than text books, about thirty students, ten from each standards of VIII, IX and X were interviewed very informally. Care was taken to select equal number of boys and girls and also students who have high reading interests in the opinion of the parents and the teachers.

3. With all these informations in the background the investigator constructed the first draft of the questionnaire. (Appendix VII) The preliminary questionnaire was then placed before a group of researchers belonging to the C.A.S.E. and on the basis of their recommendations, besides other modifications, one attitude scale was added which constituted the first part of the questionnaire. The group was of the opinion that as attitude and interest are very much related, it would be relevant to measure attitude along with interest to get better results.

(ii) Construction of an Attitude Scale

Good Earth (1973) defined an attitude as "The predisposition or tendency to react specifically towards an object, situation or value; usually accompanied by feelings or emotions; attitude cannot be directly observed, but must be inferred from overt behaviour, both verbal and non-verbal".

Keeping in view the fact that attitudes cannot be measured directly by asking questions; the investigator

prepared twentyfive statements, of which fifteen were positive and ten were negative. Although, the scale was of Likert's nature, it had three points, whereas in Likert's there are five points. The investigator felt that with five points the young children may get confused while giving their opinions and hence with every statement three choices were given - "Agree", "Uncertain" and "Disagree"; and students were advised to tickmark (_/) under any one of it, according to their own feeling or opinion.

In the "Journal of Reading" Estes presented an attitude scale to measure how students feel about reading in general. The investigator consulted the scale and was very much helped by it in constructing the statements.

In order to analyse the reaction of the students to each statement it was necessary to give weightage or marks to response to each statement. The table below shows the response value of the scale.

TABLE 3.7

Response Value to Attitude Scale

Items	Agree	Uncertain	Disagree
Negative Items 2, 7, 11, 13, 16, 17, 19, 22, 24	1	2	3
Positive Items 1, 3, 4, 5, 6, 8, 9, 10, 12, 15, 18, 20, 21, 23, 25	3	2	1

25 The table clarifies that in case of negative items, if the students tickmark (_/) under agree, they get one mark, whereas if they tickmark (_/) under disagree they get three marks. It is just the reverse, in case of the positive items, where agree carries three marks and disagree one. In both the cases, the responses under uncertain category will carry two marks.

4. The questionnaire, thus, constructed including the attitude scale was tried out on a group of one hundred students to see the feasibility and clarity of the questions in terms of language and other difficulty. Care was taken to select equal number of boys and girls and also students from standards VIII, IX and X. The results were analysed and two questions were deleted afterwards as majority of the students avoided them on the ground of difficulty.

The responses to the attitude scale was scored and Chi-Square technique was applied to see the significance or otherwise of the statements and thereby to establish the reliability and validity of the scale. The tables below give the responses of one hundred students to each statement and the result of Chi-Square testing.

TABLE 3.8

Responses of Hundred Students to Twentyfive Statements

	Number of Statements												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Agree	97	59	49	77	92	16	46	48	69	73	53	64	56
Uncer-tain	1	19	24	10	2	8	39	23	18	16	17	22	27
Disagree	1	12	22	12	5	75	12	28	9	7	28	11	16

	Number of Statements											
	14	15	16	17	18	19	20	21	22	23	24	25
Agree	83	81	49	48	82	22	80	63	52	74	54	64
Uncertain	9	13	27	24	10	12	15	25	29	17	25	14
Disagree	3	4	22	18	5	64	4	8	15	6	19	20

27

TABLE 3.9

Results of Chi-Square Testing

No.of Statements	X^2	No.of Statements	X^2
2	33.86**	16	12.83**
3	14.08**	17	7.80*
7	21.09**	19	47.58**
8	7.58*	21	23.43**
11	22.12**	22	14.08**
12	47.60**	24	21.27**
13	25.82**	25	46.64**

$$\text{Chi-Square} = X^2 = \frac{(fo - fe)^2}{fe} \qquad D.F. = 2$$

* Levels of Significance at .05
** Levels of Significance at .01

The remaining statements as may be observed from Table 3.8 had revealing significance and therefore was no need of testing.

5. The second draft of the questionnaire was then placed before seven judges, which include two Readers of M. S. University, two Principals of two local English medium high schools, and three senior research scholars of the CASE. The judges went through the questionnaire, examined each item taking into consideration weightage given to the items and other relevant aspects. Thus, the questionnaire was considered valid by its construct and face validity with the

28 help of the judges opinion.

6. The questionnaire, thus finalized contained the following items:

Part One

In part one of the questionnaire twentyfive statements consisting of an equal number of positive and negative statements were given to look into the attitude of the students towards reading in general. The reliability and validity of these statements were determined by applying Chi-Square test as well as with the help of the opinion of the judges.

Part Two

In part two there are overall twelve questions, pertaining to reading interest, directly and indirectly. Care was taken to incorporate both open-ended and close-ended questions, so as to encourage students to give real account of their reading interest.

Of the twelve questions, nine are related to extra-reading of materials like - different types of books, newspaper reading, items preferred most in the newspaper, journal reading, types of journals liked best by the students, comic reading, if the students had any particular choice for a particular series; time spend every day on extra-reading, etc. Besides these, three questions

II
29

which are indirectly related to reading interest were also included. They are on - the language through which the students would like the best to read; the sources from where they get supply of reading materials and who inspires them the most to do extra-reading besides school reading.

(C) Administration and the Scoring of the Tools and Data Collection

(i) Administration and Scoring of the Questionnaire on Reading Interest

The questionnaire, thus, finalized was administered personally by the investigator over the selected sample. Before administering the investigator tried to establish rapport with the students and any doubt or fear regarding the test was removed from the minds of the students, by assuring them that through the questionnaire the investigator was only collecting opinions and that answers will be kept strictly confidential. The investigator explained the instructions and helped the students whereever they had any difficulty in the process of answering. The test took nearly fortyfive minutes to be completed.

As mentioned earlier the questionnaire contained two parts. The first part consists of an attitude scale with twentyfive statements. The weightage given to the statements are described through Table 3.7. The maximum weightage or marks for twentyfive statements, therefore, comes to 25 x 3 = 75. In case of each students' marks

were calculated on the basis of their responses to both the positive and negative items under the categories - "Agree", "Uncertain" and "Disagree". As mentioned earlier in case of positive item "Agree" carried three marks, and "Disagree" one mark. It was just the reverse in case of negative items. In both the cases, "Uncertain" carried two marks.

In part two of the questionnaire there were twelve questions pertaining to reading interest directly and indirectly. The scoring of each item has been described below:

Q. 1: In question one of part two of the questionnaire the investigator named about seventeen leisure time activitiesincluding "Reading a book of your choice" as one of it and asked the students to show their preferences by putting number I to the first choice, 2 to the second choice and so on. In scoring only first choice given to 'reading' was considered as the researcher had concern only in finding reading interest and not in any other activity. Those students who gave first choice to reading was given one mark and the other choices got 'zero (0)' mark.

Q. 2: In question number two, students were asked to tickmark (_/) under any one of the three columns (To a large extent, To some extent, Not at all) given against the question to what extent they liked to read extra books other than text books. The weightage was three (to a large

extent), two (to some extent), one (not at all respectively. The scoring was made accordingly on the basis of individual responses.

Q. 3 (a): Through question number 3(a) the investigator wanted to see interest of students in different types of books (other than text books). Accordingly, about nineteen different kinds of books were mentioned and the students were asked to give their first choice by putting number 1 against the book they liked the best, number 2 to the second choice and so on. The percentage of first choices were calculated to see the types of books liked best by students and described in the fourth chapter. While scoring the first choice was considered and given one mark and others were not considered.

Q. 3 (b): In question 3(b) different types of stories, novels, plays, biographies, poems were mentioned and students were asked to tickmark (✓) under any one of the three categories: "Like very much", "Like a little" and "Dislike" - where first category carried three marks, second two and third one mark. Percentages of students' responses to all these three categories were calculated and analysed.

Q. 4 (a): Through question 4(a), newspaper reading habit was assessed. Students were asked to tickmark (✓) under any one of the given columns. There were four columns like - "Daily", "Sometimes", "Rarely" and 'Never'-

where "Daily" carried three marks, "Sometimes" two, "Rarely" one and "Never" zero. Individual students' responses were calculated accordingly and percentages found out.

Q. 4 (b): In order to see the interest of students in different types of news items, the investigator in this question named different kinds of news items generally published in a standard newspaper and asked the students to put one (X) to items liked in general and (XX) to the one liked the most. The most liked items were picked up (given two scores) and percentages were calculated.

Q. 5 (a)&(B): Both the questions on 5(a) and 5(b) were calculated like that of 4(a) and 4(b) respectively.

Q. 6 (a)&(b): Observing the popularity of comic reading among boys and girls a question was asked on it - whether they like comic or not and if they like, to give at least three reasons as to why they liked it. The percentages of both 'Yes' and 'No' response were calculated. The response 'Yes' scored 1 and 'No' 0. The second part (Q.6(b)) was also analysed quantitatively by finding out the percentages of the common responses. No mark was assigned.

Q. 7 (a)&(b): Both the question number 7(a) and 7(b) were scored and analysed like that of Q.6(a) and 6(b) respectively.

Q.8: Question 8 is an open-ended question and

33

therefore, needed qualitative analysis. The investigator, however, tried to find out the percentage of the students' common responses and give quantitative data. No mark was assigned.

Q. 9: In this questions students were asked to tickmark (_/) against any one of the mentioned language through which they liked .The best to read and here too percentages of the responses were calculated and the students were given one score for the response.

Q. 10: On a four point scale students were asked to answer how much time they spend every day on extra-reading. The weightage given to these points are: 'Less than one hour (0)', 1 hour (1), 2 hours (2), more than 2 hours (3). The scores were calculated accordingly.

Q. 11: In question number 11 students were asked to give the sources that supplies most of their reading materials. The percentages of the responses were calculated and analysed. No mark was assigned.

Q. 12: In this question students were asked to tickmark (_/) under any one of the given persons who inspires them the most to do extra-reading. Accordingly one score was allotted for the response and calculated accordingly.

Total Reading Interest Score: The total reading interest score was found out by adding up the scores on question numbers 1, 2, 3(a), 4(a), 4(b), 5(a), 5(b), 6(a),

33(a)

7(a), 10 and 12 (as described above) and finally adding it with the individual attitude scores for each student. Details of the scoring are given in Table 3.10 below:

TABLE 3.10

Details of Scoring Procedure in the Questionnaire on Reading Interest (Part II)

Sr. No.	Question No.	Marks allotted	Marks considered for final scoring
1.	1	1, 0	1
2.	2	3, 2, 1	3, 2, 1
3.	3(a)	1, 0	1
4.	3(b)	3, 2, 1	Not considered
5.	4(a)	3, 2, 1, 0	3, 2, 1, 0
6.	4 (b)	2, 1	2
7.	5(a)	3, 2, 1, 0	3, 2, 1, 0
8.	5(b)	2, 1	2
9.	6 (a)	1, 0	1
10.	6(b)	Percentage alone	Not considered
11.	7(a)	1, 0	1
12.	7(b)	Percentage alone	Not considered
13.	8	Qualitative analysis and p.c.	Not considered
14.	9	1, 0	1
15.	10	3, 2, 1, 0	3, 2, 1, 0
16.	11	Percentage alone	Not considered
17.	12	1, 0	1
Maximum Total		25	22

Total Reading Interest Score = 75 + 25 = 100
Total Scores considered for computer analysis = 97.

34 (ii) The Madhuker Patel's Intelligence Test

The Madhuker Patel's Intelligence Test is a standardized test to measure Intelligence Quotient (I.Q.) of children reading in standards VIII, to X. The test is rather unique in the sense that it does not require arithmetic or any other form of school achievements. The test devoid any cultural content, consists of geometrical figures, designed to test the students' power of abstract thinking, reasoning and space perception. It presents an equal challenge to all students regardless of their cultural backgrounds. The test consists of four sets of test items and in total there are eighty items.

Administration and Scoring of M.P.I.T.

The investigator carefully followed, the instructions given in the test-manual of the authors for administration of the test. Accordingly the following steps were followed:

(a) The students were seated comfortably by allowing not more than two pupils in the same bench.

(b) It was observed that each child has a pen or a pencil.

(c) Rapport was established between the investigator and the students by explaining the

35 purpose of the test.

(d) Answer sheets were distributed among the children.

(e) The students were helped in filling up the particulars in the answer sheet where birth date and age were essential.

(f) Details of how to answer in the answer sheet were explained to the students.

(g) Booklet containing the test items were distributed among the students (one each). The investigator explained the sample of the test thoroughly which gives the students guidance as to how to answer the different types of the test problems contained in the booklet.

(h) When all the students said they do not have any more difficulty regarding how to answer the questions, the investigator asked them to start. The maximum time allotted to complete the test was fortyfive minutes and this was recorded with the help of a time-piece. After completion, the investigator collected both the booklets and the answer sheets from the students and thanked them for their co-operation.

36 Scoring of M. P. I. T.

A stencil was available with the test for hand scoring and the total number of correct answers was regarded as the total score.

Before scoring, the answer sheets were thoroughly scrutinized to see if there was more than one answer for any question. Such answers were not given amy credit.

The key that was provided with the test, when placed directly on the top of the answer sheet, each hole of it showed the position of a correct answer. Beginning with the word "start here" on the scoring key the arrow to the words "Record scores here" was followed and correct answers were scored and the total was filled up in the score box.

The test manual provided a table of I.Q.for different age group and in terms of test scores. The investigator found out I.Q. for each student by following the table. The students were grouped into - highly intelligent, average and low intelligent according to the classification given by the authors of the test. Accordingly, all students having I.Q. more than 113 was regarded as high, between 88-113 as average and below 88 as low intelligent. (Table 3.11)

(iii) Socio-Economic Status Scale

The Socio-Economic Status Scale constructed by Udai Pareek and Trivedi was used by the investigator to

measure Socio-Economic Status of the parents of the pupils. The scale originally was meant for rural-sample, but the investigator selected it considering the following points:

(a) The scale was a comprehensive one. It consisted of nine items, the responses to which might give clear picture about family background of the child.

(b) Kuppuswami's scale for urban people which is generally used by the researchers had only three items such as education. occupation and income. But,in the opinion of the investigator in Indian society besides these, factor like - class or caste, social participation, type of house, material possession, family type, etc. play a very vital role in determining socio-economic status of an individual. The scale used by the investigator had all these aspects in it and therefore was considered suitable forthe present study.

Another objection raised generally against the use of Kuppuswami's scale is that, in the context of the present economic change, the system of categorization on the basis of the scores given in the scale is an outdated one.

Therefore, due to non-availability of a suitable uptodate readymade urban scale for measuring socio-economic status, the investigator used the scale by Trivedi and Pareek with the following precautions:

38 (a) The items very much relevant to rural population were deleted. The sample, therefore, was instructed not to answer the questions on "Land" and "Land Instruments of the scale.

(b) In scoring and categorization the investigator did not follow the key provided in the scale. In order to make the scores more meaningful the investigator took the labout to convert all the raw scores into standard scores. The formula for converting raw score into standard score was:

$$\text{Formula} = \frac{X' - M'}{\delta_1} = \frac{X - M}{\delta}$$

$$\text{or } X' \frac{\delta_1}{\delta} (X - M) + M'$$

(Garrett, p. 312)

Where: X = A score in the original distribution.

X' = A standard score in the new distribution.

$M - M'$ = Means of raw score and standard score distribution.

$\delta - \delta_1$ = SD' of raw score and standard score.

From standard score the mean and the standard deviations were calculated, and to place the sample in three categories (high, middle and low) mean plus one standard deviation was regarded high, mean minus one standard deviation was regarded low and mean as midpoint or

39 average. According to the individual standard score obtained by the students, they were placed in the three categories mentioned above. (Table 3.11)

It may be mentioned here that the same tool was used by Bina Kopper on Baroda sample in her doctoral work "Factors Affecting Reading Comprehension in English" (an unpublished doctoral thesis, M.S.U., 1979).

Administration of the S.E.S. Scale

The students were explained that through the questionnaire informations regarding their parents were sought and that it will be kept confidential. They were instructed to encircle the number against each item which they think to be relevant in case of their parents. However the items relating to land and land instruments were deleted. The total of the numbers circled, thus, gave the total score for each individual.

(iv) Academic Achievement

To place students into three groups according to their academic achievements, total marks obtained by each student was converted to standard score by the same method as described in (iii) Scoring and Categorization of S.E.S. Scale). By calculating mean and standard deviation from them, mean plus one standard deviation was regarded high, mean minus one standard deviation was regarded low and mean as average. Students were grouped into three achiever

9a

TABLE 3.11

Details of Coding of Different Variable Groups for the Purpose of Computer Analysis

Sr.No.	Standard Groups	Code Marks
1	VIII	1
2	IX	2
3	X	3
Sr.No.	**Age Groups**	**Code Marks**
1	12 - 13 years	1
2	14+ years	2
3	15 years and above	3
Sr.No.	**Sex Groups**	**Code Marks**
1	Female	1
2	Male	2
Sr.No.	**S.E.S. Groups**	**Code Marks**
1	High	1
2	Middle	2
3	Low	3
Sr.No.	**Academic Achiever Groups**	**Code Marks**
1	High	1
2	Average	2
3	Low	3
Sr.No.	**Intelligence Groups**	**Code Marks**
1	High	1
2	Average	2
3	Low	3

groups (high, average and low) considering their individual standard score, as compared to the mean, (mean + 1 S.D. and mean - 1 S.D. and mean). (Table 3.11)

With the help of the tools described above the required data were collected from ten English medium schools of Baroda. It should be mentioned here that before collection of data, principals of all ten schools were personally approached by the investigator for permission, allotment of time and other formalities and they were found to be very co-operative and helpful in this regard.

3.9 SYSTEM OF ANALYSIS OF THE DATA

The data, thus, acquired were screened thoroughly and incomplete answer sheets were rejected. For final analysis data numbering 679 were kept aside out of 700 data collected for this purpose.

The investigator scored the data on M.P.I.T.and S.E.S. Scale by following the instructions given in the tests. The data on reading interests were scored and total score for every child was find out on the basis of the weightage decided for each question of the questionnaire. Thereafter the data were further analysed with the help of the computer and necessary statistics such as mean, standard deviation, correlation, 't' value of different variables were calculated. The investigator also found out

41

the percentages of students' responses to all the items of part two of the questionnaire (except Q. 2) and the details of all these are described in the next chapter.