CHAPTER 2

METHOD AND DESIGN OF THE STUDY

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The present research was cross-sectional comparative study to understand motivational and cognitive factors among regular and irregular primary school students from tribal and non-tribal blocks of Vadodara District, Gujarat. The research also attempted to understand Parents' Attitude Towards Education and how it is related to gender, area (tribal and non-tribal) to which parents and students belong, and regularity of students. Need for Achievement was taken as the measure of motivational factor while cognitive factors included Creativity, Problem Solving Ability and Concentration. This section presents scientific methods and procedure adapted to carry out the research.

2.1 VARIABLES

A variable is defined as anything that has a quantity or quality that varies. The dependent variable is the variable that depends upon or is a consequence of the other variable whereas the independent variable is a variable believed to affect the dependent variable. Independent variables for the present research are gender, regularity and locality or area. On the other hand, dependent variables for the research are motivation factor (Need for Achievement), cognitive factors (Creativity, Problem Solving ability and Concentration) and Parental Attitude Towards Education. The control variable is a variable that is held constant in order to assess or clarify the relationship between two other variables. In this research, Government schools with primary sections are kept constant.

Table 2.1

Independent, Dependent and Control Variables of the Study

Independent Variables	Dependent Variables	Control Variables
1. Gender (Male/Female) 2. Regularity in School (Regular/Irregular) 3. Area (Tribal and non- tribal)	**Motivational Factor** a. Need for Achievement **Cognitive Factors** a. Creativity b. Problem Solving Ability c. Concentration **Parents' Attitude Towards Education**	1.Government Schools 2.Schools with grade 1 to 8

2.1.1 CONCEPTUAL AND WORKING DEFINITIONS FOR THE VARIABLES UNDER STUDY

For the purpose of this research study the following terms are defined:

2.1.1.1 Conceptual Definitions

1. Need for Achievement. J.W. Atkinson defines Need for Achievement is a theoretical model intended "to explain how the motive to achieve and the motive to avoid failure influence behavior in a situation where performance is evaluated against some standard of excellence" (Atkinson, 1957, p. 371).

2. Problem Solving Ability. According to Mayer and Wittrock (2006), problem solving is cognitive processing directed at achieving a goal when no solution method is obvious to the problem solver.

3. Creativity. Creativity is defined as the process of producing something that is both original and worthwhile or characterized by originality and expressiveness and imagination (Csikszentmihalyi,1999).

4. Concentration. Concentration is an attentional process that involves the ability to focus on the task at hand while ignoring distractions (Moran, 2012).

2.1.1.2 Working Definitions

1. ***Parents Attitude towards Education.*** Parents' Attitude towards Education is parents' views towards education and schooling of children.
2. ***Gender.*** Gender refers to basic biological difference between male and female.
3. ***Regularity.*** Regularity refers to students who come in school for maximum number of days as per the attendance register.
4. ***Area.*** Area refers to two blocks from where the sample is selected for the study i.e. tribal and non-tribal block.

2.2 SAMPLE

2.2.1 Population

At the time of data collection for the present study, Naswadi block (Tribal block) was a part of Vadodara district which is now under Chhota Udaipur district since 15th August 2013. Presently, JetpurPavi, Chhota Udaipur, Kavant, Naswadi and Sankheda blocks are blocks of Chhota Udaipur District. Desar is a new Block of Vadodara District.The population for the study included the students of the age ranging from 11 years to 16 years belonging to Naswadi tribal block and Dabhoi, non-tribal block (rural area) of Vadodara district in Gujarat State. There are total 44 and 46 Primary Government Schools from standard 1st to standard 8th in Dabhoi and Naswadi blocks of Vadodara district respectively.

2.2.2 Selection of School

Schools are divided under different groups or clusters as per villages under Sarva Siksha Abhiyan. There are 22 clusters in Naswadi block. In these clusters there are 46 schools from grade 1 to grade 8. Similarly in Dabhoi block there are 17 clusters and in these clusters there are 44 schools from grade 1 to grade 8. Schools were randomly selected using lottery method from both the blocks. Total 17 schools from each block were selected making a total sample of 34 schools. Table 2.2 presents details of selection of the primary schools from selected blocks.

Table 2.2

Selection of Primary Schools

Total Primary Government Schools	**School Sample Selected**
Naswadi (Tribal block)-46	17
Dabhoi (Non-tribal block)-44	17
Total Schools Selected	34

2.2.3 Research Design

Table 2.3

Research Design

Area of Living	**Tribal**				**Non-Tribal**			
Attendance	Regular		Irregular		Regular		Irregular	
Gender of Participants	Male	Female	Male	Female	Male	Female	Male	Female

Above Table shows that the present study is a cross-sectional 2 X 2 X 2 factorial design.

2.2.4 Sample Size

Total 408 participants and 408 parents were selected for the research.The present study is a cross-sectional 2 X 2 X 2 comparative study.

Table 2.4

Sample of Participants and Parents for the Study

Categories	**Tribal**				**Non-Tribal**				
Attendance	R		IR		R		IR		
Gender	M	F	M	F	M	F	M	F	
Participants	51	51	51	51	51	51	51	51	408
Parents	51	51	51	51	51	51	51	51	408
Total									816

*Note*R refers to Regular, IR refers to Irregular, M refers to Male and F refers to Female*

2.2.5 Sampling Technique

Simple randomization was used to select schools from non-tribal and tribal area and purposive sampling technique was used to select participants and their parents respectively.

2.2.6 Selection of Participants

Class-teacher from each grade i.e. 6^{th}, 7^{th} and 8^{th} was asked to name one girl and one boy who were most regular and most irregular in school based on their attendance. Thus, from each grade, 4 participants and from every school total 12 participants were selected. Hence, total 408 participants studying in 6^{th}, 7^{th} and 8^{th}grades, from 34 sample schools, (17 schools from each block) were taken as sample for the research. Table 2.5 presents the representation of participants from primary school while Table 2.6 provides a gender-wise distribution of regular and irregular participants.

Table 2.5

Selection of Participants from Each Primary School

6th Grade				**7th Grade**				**8th Grade**				**Total**
Regular		Irregular		Regular		Irregular		Regular		Irregular		
Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	Boy	12
1	1	1	1	1	1	1	1	1	1	1	1	

Table 2.6

Gender-wise Distribution of Regular and Irregular Participants

Grades	Female Participants				Male Participants				Total
	Tribal		Non-Tribal		Tribal		Non-Tribal		
	R	IR	R	IR	R	IR	R	IR	
6	17	17	17	17	17	17	17	17	136
7	17	17	17	17	17	17	17	17	136
8	17	17	17	17	17	17	17	17	136
Total	51	51	51	51	51	51	51	51	408

*Note*R refers to Regular and IR refers to Irregular*

2.2.7 Selection of Parents

Total 408 participants were selected who were parents of sample students. Parents include either mother or father or local guardian of the sample participants. Table 2.7 presents the break-up of parents selected for the research.

Table 2.7

Break-up of Research Participants

Categories	Tribal (204)				Non-Tribal (204)				Total
Attendance	Regular Participants		Irregular Participants		Regular Participants		Irregular Participants		
Gender (Participants)	M	F	M	F	M	F	M	F	
Parent/ Guardian	51	51	51	51	51	51	51	51	408

Note M refers to Male and F refers to Female*

2.3 RESEARCH TOOLS

In the present research, four different performance-based tools were used for participants and one questionnaire was used for parents or guardians. The need of performance-based tools used for the research:

i) The sample consisted of participants from the age group of 11 to 16. It could be easy for them to perform a task than to answer a long questionnaire.

ii) The participants were from tribal and non-tribal areas having different dialect. There could be difficulties in reading and comprehending the Gujarati language. Performance-based tools would help to avoid language barrier or bias to prompt answers from researcher.

iii) While interacting with participants and teachers during the pilot study, the researcher observed that the participants follow oral Gujarati and have difficulties in reading. Therefore, the performance-based tools were included to ascertain appropriate response from participants discounting effects of limitations of the language.

iv) Performance tests are culture-free. The verbal test has an effect on the linguistic cultural background of area (tribal /non-tribal). Children belonging to tribal and rural areas were not able to perform well on a verbal test even in Gujarati. Hence, performance-based tools were chosen.

A) Procedure of Data Collection

For the current research, written permission was taken from the District Education Authority for the research and data collection from selected primary schools. Permission letter explicitly mentioned the purpose of the research, age group of participants, and the list of schools selected and sample size. The District Education Officer had issued Office Order to the respective School Head Master/Mistress/Principal to permit of the research and extend support in data collection for the research. Before visiting the school, the Head Master or Principal was communicated about the research and the permission sought for a collection of data from the school. The date of visit was discussed and finalized. The class-teachers of 6^{th}, 7^{th} and 8^{th}grade were requested to identify regular/irregular participants from their attendance register. The data

collection schedule was prepared for each school in coordination with the School Head Master or Principal. Accordingly, the data was collected from the students and parents. Written consent from parents was also taken for allowing their children to be part of sample in the research.

B) Order of data collection from students

As mentioned earlier, four performance based tests were selected for research. The tests were administered in the following order:

1. Ring Toss Game,
2. Cancellation test,
3. Guilford Alternative Uses Task and
4. Kohs Block Design

Before conducting the tests selected participants from grade 6^{th}, 7^{th} and 8^{th}, the participants were taken in a separate classroom. To build the rapport, basic introduction about the researcher and the tools was given but the actual purpose of the research was not revealed. After giving the introduction following instructions in Gujarati were given to all the participants. "*Dear student, today, I am here to play four different games with you that would help me in my research. These games and its results are for my research and it is not part of your school exam. So, without worrying just follow my instructions. Raise your hand for any query. One by one, we will play and I will explain to you each game before we start playing*." The detailed procedure for each performance test is as follows:

2.3.1 RING TOSS GAME

2.3.1.1 Nature of the Test

The tool used for the study was Ring Toss Game based on the Atkinson's Risk Taking Model of Achievement Motivation (Atkinson & Feather, 1966). The rings are tossed at pegs that are five, ten, and fifteen feet away from the thrower. The five-foot peg equals one point, the ten-foot peg equals two points, and the fifteen-foot peg equals three points. The points may be related to a prize or reward or just left as points. In the original experiment Atkinson and Litwin had forty-five human participants in their experiment and

each was allowed ten opportunities to toss a ring at a peg from a distance of their choice in the range of 0 to 15 feet (approx.4.57 meters). Results were collected for each motivation type in three range-brackets for 'easy', 'moderate' and 'hard 'goals (Kasmarik, 2011) .

An individual will select an easy task so that there is a need to use less effort to accomplish the task. A task which is difficult will take more efforts. Individuals with high achievement motivation will select task with moderate difficulty. Achievement motivation of an individual is affected by an individual's perception of the outcome of the task. If the outcome of a task is viewed as unimportant, little or no effort may be made in attempting the task (Atkinson & Feather, 1966).

Few modifications were made in the game for the current study. In the present study, the peg was replaced with the box. Further, three distances 5feet, 10feet and 15feet at an interval of 5 feet were used. The ring was 5 inch outside diameter and made of rubber. The square box used in data collection was1foot in width and 2 feet in height.

2.3.1.2 Administration of Test

In the original experiment ring and peg was used whereas in the present study, the ring was used but instead of the peg, box was used. Participants were asked to throw the ring in the box from any of the three distances i.e. 5 feet, 10 feet or 15 feet. The distance was marked on the floor at an interval of 5 feet. The closest line was 5 ft and the farthest was 15 feet away from box. One after another participants were called from the classroom to the experiment sight which was away from the classroom so that other participants could not see. The participants were instructed that they are supposed to throw the ring in the box from any of the three distances from where he or she wished. No reaction or feedback was given by the researcher when the participant selected the distance. After, completion, the selected distance was noted by the researcher and the participant was asked to sit in separate classroom so that he does not interact with other students selected for the experiment.

2.3.1.3 Scoring

The distance selected by the participant i.e. 5 feet, 10 feet or 15 feet is noted in a sheet.

2.3.2 CANCELLATION TEST

2.3.2.1 Nature of the Test

Cancellation Test is used to assess the ability to sustain and focus attention, rapid visual scanning, motor activation and rapid inhibition of distraction. Target Cancellation Test is used as a tool in neuro-psychological batteries for more than 100 years. Cancellation Test is a paper-pencil test in which target stimuli usually some designated type of letter, symbol or numeral are randomly scattered among similar non-target distractor (Kalina & Walgrave, 2004). The scoring could be in terms of number of correct responses, type of pattern of error responses and time to complete the task. To increase or decrease attention load, stimulus characters are increased or the appearance of the targets is changed (Kalina & Walgrave, 2004).

In Cancellation Test, random letters are written in rows on A4 size paper. The target alphabet is randomly scattered along with the non-targets alphabets or distractor. Time limit from 1minute to 5 minutes is given to identify the target letter and cancel it. Sometimes sound distractions are also added during the performance. The performance of the subject is evaluated by counting the number of correct targets canceled or subtracting the errors committed such as canceling the wrong target from the total number of cancellations.

Pradhan and Nagendra (2008) conducted a study to establish norms for six-letter cancellation test. They selected 819 normal students (with no history of neurological or psychiatric disturbance) between the age group of 9 to 16 years for the study. The Six Letter Cancellation test-retest reliability was found ($r = 0.781$, $P = 0.002$).This test is directly related to attention measurement. This test has been used in earlier studies in an Indian population (Sarang & Telles, 2007). Kalina and Walgrave (2004) conducted a validation study. Results from their study state that internal reliability of cancellation test

is high but is inclined to practice effect, and thus should not be used with the same individual without a significant intervening interval.

The Letter Cancellation Test needs eye-hand coordination, speed, and sustained attention-concentration. Its retest reliabilities range from 0.89 to 0.92 for the total score after a five-hour interval, and 0.92 for the total score minus errors after a 12-month interval (Anastasi, 1976). For present study, Gujarati alphabets were printed on A4 size sheet of paper in rows. Total 50 rows with each row having 5 alphabets 'ક'as target printed randomly which the participants were supposed to cancel within five minutes.

2.3.2.2 Administration of Test

All the participants were asked to gather in a room and were made to sit separately on a bench. Participants were asked to identify as many as the alphabet 'ક' and put a '/' (cancel mark) on it. Total 5 minutes time was given for the test. Participants were instructed to begin and end the test when instructed.

2.3.2.3 Scoring

The correctly canceled alphabets were considered as correct responses and the alphabets other than 'ક'canceled were considered as incorrect responses. The correct and incorrect responses were noted down. However, for analysis purpose only number of correctly cancelled alphabets was considered.

2.3.3 GUILFORD'S ALTERNATIVE USES TASK

2.3.3.1 Nature of the Test

Guilford's Alternative Uses Task is a revised and improved form of the test "Unusual Uses", which was originally designed (Wilson, Guilford, Christensen, & Lewis, 1954) to measure creative thinking. The participant is to list as many as six other, uncommon uses for the object, in the time allowed. For instance, name all the possible uses for a brick. The probable answers may be a paperweight, a doorstop, a platform to sit, to use as a weapon and to hit my sister on the head with a brick. The responses are evaluated on 4 dimensions: originality (uncommon responses), fluency (quantity), flexibility

(number of different categories), and elaboration (amount of detail). Runco and Acar (2012) found that divergent thinking is a reliable indicator of creative potential. It is a Grade test of divergent thinking, which allows for a faster evaluation of creativity (Dippo, 2013).Using the percentage of occurrence as a measure of novelty, participants who produced more responses, had more novel responses and a higher average novelty score. The unoriginality of ideas decreases exponentially at a rate of x-1/2 (r2=.94).

2.3.3.2 Administration of Test

All the participants were instructed to gather in a classroom and sit separately on a bench. A record sheet to measure Creativity along with instructions and example was given and explained to each participant. Participants were instructed that in five minutes, they had to write different possible uses of cloth (size of bed-sheet) in Gujarati language. For more clarification among the participants regarding the task, different uses of the wooden stick was given as an example. Participants were instructed to start and stop writing in the record sheet when told to do so.

2.3.3.3 Scoring

All the responses given by the participants were noted and data entry was done in the MS-Excel, Percentage of unique responses and unusual responses was drawn based on the total number of responses. The scoring of every response given was based on four components:

Fluency. A total number of the response given by the participant was used as the score for fluency.

Originality. Each response was compared to the total amount of responses from all of the participants who gave the test.Score 1 was given to responses that were given by only 5% of the group. These are called as unusual responses. Score 2 was given to responses that were given by only 1% of the group, these are unique responses.

Flexibility. All the responses were noted and clubbed in different categories based on the similarity of the response given by the participant. Each category, irrespective of a number of responses, was given one score.

Elaboration. All the responses, which were elaborated were given either score 1or 2 based on the way it was elaborated. The response in which the participant failed to elaborate was scored zero.

In the end, the total score was calculated for the participant by adding scores one received on all four different components.

2.3.4 KOHS BLOCK DESIGN

2.3.4.1 Nature of the Test

Kohs Block Design test consists of 17 designs and 16 blocks wherein the subject is supposed to complete each design in stipulated time such as for first three designs the time limit is 1 ½ minutes, then for 4-9 design the time limit is 2 minutes, for 10th design 3 minutes, further for 11-14 design the time limit is 3 ½ minutes and lastly for 15 to 17 design the time limit is 4 minutes. In the present study, the shorter version of Kohs Block Design from Malin's Intelligence Scale for Indian Children (MISIC) was used to measure Problem Solving Ability. MISIC test is an Indian adaptation of WISC (Wechsler Intelligence Scale for Children). This battery includes 10 designs from the original Kohs Test's 17 designs. Nine blocks are used in this test which requires that the subject be able to reproduce designs of increasing difficulty. The blocks have red, white, and red-white sides. Four of the blocks are used to make the easier designs and all nine are needed for the more difficult ones. There is a time limit for the completion of each design. The original WISC reliability sub-testwise by the Spilt-half method with appropriate correction for the full length of the test by the Spearman-Brown formula yielded a total coefficient of 0.91. MISIC established with test-retest method yielded a Pearson's product-moment correlation coefficient of 0.91. MISIC establishes concurrent as well as congruent validity. The former was established from school ranking whereas later was obtained from an adapted version of California short-form test of Mental Maturity for the upper age level and from the Good Enough Draw a Man test for the lower age level. Both yielded a coefficient of 0.63.

2.3.4.2 Administration of Test

At the beginning of the test, participants were allowed to see all the blocks along with block colours. The participants were also allowed to turn the blocks and were asked to name the colour that they have seen. Following directions were given to the participant: Four blocks were taken and shown to participant and said, "I am going to put them together to make a design. Watch me." First design was made slowly without showing the card. Then the participant was asked to make the same design. If he failed to make it, first design was again demonstrated and participant was asked to make it again. If the participant succeeded in making first design then researcher demonstrated the second design and said, "Now look at the picture and make one just like it with these blocks. Go ahead and tell me when you have finished." One after another when participant completed the design, time consumed for each design was noted and new design card was shown. When the participant completed 6 designs and reached 7^{th} design, five other blocks was given and said, "Now make one like this, using nine blocks. Be sure to tell me when you have finished."

In the current study participants were given ten designs one after another with no time limit to complete. Time limit was not set in the current research as the aim of this study is to find the competence in problem solving ability among the group members. Time taken by the subject to complete design was noted. During the test if participant failed to make a particular design, the researcher demonstrated the participant how to complete the design. Then the participant proceeded to next design. After two consecutive failures of design, the researcher discontinued the test on that participant.

2.3.4.3 Scoring

A score of 1 was given to each correctly solved design by the participant. The maximum score obtained by participants was 10.

2.3.5 PARENTS ATTITUDE TOWARDS EDUCATION QUESTIONNAIRE

2.3.5.1 Nature of the Test

Parent Attitude Towards Education Scale developed by Medinnus, Devlassic and Stevens (1971) was used as a base to develop the scale for the current research. The scale developed by Medinnus, Devlassic, and Stevens was 5-point scale consisted of 53 statements, measuring parent attitude towards school and teacher, the value of education, the value of the parent's own education and language education in general.

Based on the above scale a questionnaire of 35 items in Gujarati was developed by the researcher for the current research. The response was on a three-point scale i.e. 'yes', 'no' and 'don't know'. The questionnaire was based on the following six dimensions measuring parent's attitude towards education:

1) Parents' attitude towards school and teacher,
2) Value of education,
3) Parents' responsibility towards a child's education,
4) Parents' value towards own education,
5) Parents' attitude towards school facilities and
6) Parents' attitude towards gender difference in the context of education.

These dimensions were selected on the basis of the dimensions in the scale by Medinnus et al. (1971), literature review on importance of parents' in the education of children and discussion with experts in Education.

Dimensions and their Description

1. Parents' attitude towards school and teacher. Parents' approach or thoughts or stance or mind-set specific towards a particular school (it could be their child's school) and the teacher. For example, one item in the questionnaire says: 'It is necessary for students to follow teacher's instructions.'

2.Value of education. Parents' understanding of how important the education is for their child. For example: 'Going to school is useful to a child for the whole life.'

3. Parents' responsibility towards a child's education. Parents point of view towards their role and accountability in child's education. For example: 'Parents should regularly visit the school of their child.'

4. Parents' value towards own education. Parents' view and importance towards own acquired education and teachers who taught them. For example: 'My life would have been better if I had formal education'.

5. Parents' attitude towards school facilities. Parents' attitude towards education in comparison to the facilities provided by the school such as separate toilets, drinking water and proper sitting arrangement. For example: 'I would not send my daughter to a school with poor or no facility of toilets.'

6. Parents' attitude towards gender difference in the context of education. Parents' may have a different opinion on education for girls and boys. The importance and level of education choice could be different gender-wise. For example: 'I do not prefer to educate girls as educated girls do not like to do household work.'

Table 2.8

Dimension-wise Item Distribution of Parents' Attitude Towards Education Questionnaire

Dimension	**Parents' attitude towards school and teacher**	**Value of education**	**Parents' responsibility towards the child's education**	**Parents' value towards own education**	**Parents' attitude towards school facilities**	**Parents' attitude towards gender difference in the context of education**
Total Items	7	6	7	6	4	5

2.3.5.2 Questionnaire Development Procedure

The items were first prepared in the English language. After preparing the draft, it is necessary to screen items in a questionnaire from the view point of wordings and whether they depict the parents' attitude toward education. For this, with the help of guide, items were screened. Certain items were edited. The Delphi method was used to finalize the tool for the research.

The Delphi method is a forecasting method based on the results of questionnaires sent to a panel of experts. Several rounds of questionnaires are sent out, and the anonymous responses are aggregated and shared with the group (experts' panel) after each round.

In the present study, research tool consisting of 55 items was shared with Delphi panelists, which included experts of The Maharaja Sayajirao University of Baroda from the Department of Psychology, Department of Education, Department of Social Work and Department of Human Development and Family Studies; PhD scholar from the Psychology Department; education expert working with civil service organization; school teacher and a parent to evaluate the tool in terms of meaning and relevance of statements. The Experts were asked to check the language and relevance of items as per dimensions. Based on face validity given by experts few of the items were dropped due to their ambiguity such as, 'I want my child to like school' or 'Schools are doing good a job today.' After incorporating necessary changes, the tool was again shared with the Delphi panellist for their comments. Along with the English draft, Gujarati draft was also given for finalizing the tool. All, the panellist had the expertise in both English and Gujarati language. After several rounds of developing questionnaire when there was no further serious comments and revision, the questionnaire was finalized. Finally, the scale was reduced to 35 items from 55 items.

2.3.5.3 Administration of Questionnaire on Parents/Guardians

Parents / guardians of the selected participants were requested to remain present at the school as per the appointment schedule. All parent participants were oriented on the purpose of the study. The participants were individually instructed that there were 35 items in the questionnaire related to the education and school of their children which they had to answer either 'yes', 'no' or 'don't know'. The researcher read the statements for each individual participant and responses were noted. Data collected from all the participants (398 nos.) was compiled and scored. The data was then entered in the MS-Excel sheet for the ease of statistical analysis.

2.3.5.4 Scoring

There were total 35 items in the questionnaire. Score 1 was given to items which showed a positive attitude towards education. Reverse scoring was done for negative statements. There were 13 negative statements and 22 positive statements in the questionnaire. The questionnaire was administered on total 398 respondents. Looking at the spread of score quartile was conducted. The quartile results showed that 113 respondents scored below or equal to 23 score, 175 respondents scored between 24 to 26 scores and 110 respondents scored above or equal to 27 score. Respondents who scored below or equal to 23 scores were considered to have a low positive attitude towards education and respondents who scored above or equal to 27 scores considered to have a high positive attitude. During the analysis of data respondents who scored 24 to 26 were dropped. Hence analysis was based on total of 223 responses.

2.4 ETHICAL CONSIDERATIONS

Ethical considerations were of foremost concern of the researcher before the research process was conducted. For the current research, the researcher's intention was to promote a trustful relationship with all participants to produce precise, rich information without any negative effect on the participants. The researcher was aware of the inherent responsibilities for the protection of the rights of participants and maintaining the ethical grades of this research. The District Education Authority had granted the permission for conducting research as well as collecting the data from students and from the parents. The researcher also obtained approval from respective school headmaster or Principal before collecting the data.

Prior to data collection, a statement of ethical concerns was read to each of the parents / guardians of participants and written consent was taken to allow their children to participate in the study. The protocol of ethics had assured that participation in the study was voluntary and that names or identities of the participant would not be revealed in any case. Participants

were also informed that they could refuse to answer any question, and were free to withdraw from answering the whole questionnaire at any point of time.