

## **CHAPTER III**

### **METHODOLOGY**

#### **3.1 INTRODUCTION**

This chapter outlines the approach and methodology used for the present study in order to accomplish the goal of the study.

#### **3.2 APPROACH BASED METHODOLOGY**

The conceptual framework of the study presented in chapter I gave rise to three research questions which the present study has tried to answer. These are:

1. What is the level of life skills among elementary school students?
2. How can life skills be enhanced in social sciences class?
3. To what extent cooperative learning strategy will be helpful in enhancing Life Skills among elementary school students?

To enhance the students' ten core life skills, the researcher in this study had prepared lesson plans in the social sciences subject using cooperative learning techniques. The researcher wanted to study the enhancement of life skills among the students; therefore, it is necessary to study this phenomenon in the continuous process. For this it is necessary to have face to face interaction and observe the students in their natural settings. This nature of study led the researcher to adopt a methodology where the process of enhancement could be observed. Hence, the researcher has adopted “Qualitative Descriptive Case study” an approach as a research strategy.

#### **3.3 CASE STUDY AS A RESEARCH STRATEGY**

From the review of studies, it is learned that cooperative learning techniques contribute significantly in the enhancement of life skills among school students. Although the fact cannot be denied but the large-scale dominance of quantitative studies has not revealed any significant findings pertaining to the process aspect which could be linked to the enhanced level of life skills in order to arrive at a conclusive understanding. Therefore, it is necessary to carry out such research that will reveal the process of enhancement of life skills among the students. Consequently, qualitative case study approach was selected to fulfil this requirement.

A case study is a thorough and in-depth analysis of a specific person, community, organization, event, or phenomena in the context of real-world occurrences. It involves carefully investigating and evaluating a particular incident in order to identify underlying behaviours, principles, or patterns. Researchers can examine details and dig into complex issues using case studies that may not be possible with other research approaches. They provide rich qualitative data, allowing for a holistic understanding of the subject under study. According to Yin (2009), a case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident." The aim is to acquire an in-depth knowledge of the case being investigated.

The researcher aimed to develop lesson plan through cooperative learning to enhance life skills among the students. This research study was designed as an embedded single-case qualitative study. In the present study the case is the class VI, and the students studying in this class is considered as the units of analysis. This qualitative case study provided the researcher with the opportunity to closely and deeply examine the progress of the students within a specific context.

### **3.4 SETTING THE SCENE FOR THE CURRENT STUDY**

The aim of the research was to investigate how students' life skills are enhanced through cooperative learning in the social sciences. In order to observe the process of enhancement during the execution of the activity constructivist lesson plan was developed using cooperative learning techniques. The students were supposed to work in group and interact with each other to achieve the common goal. Researcher acted as a mediator and teacher in this endeavour.

The essences of these interaction lead the researcher

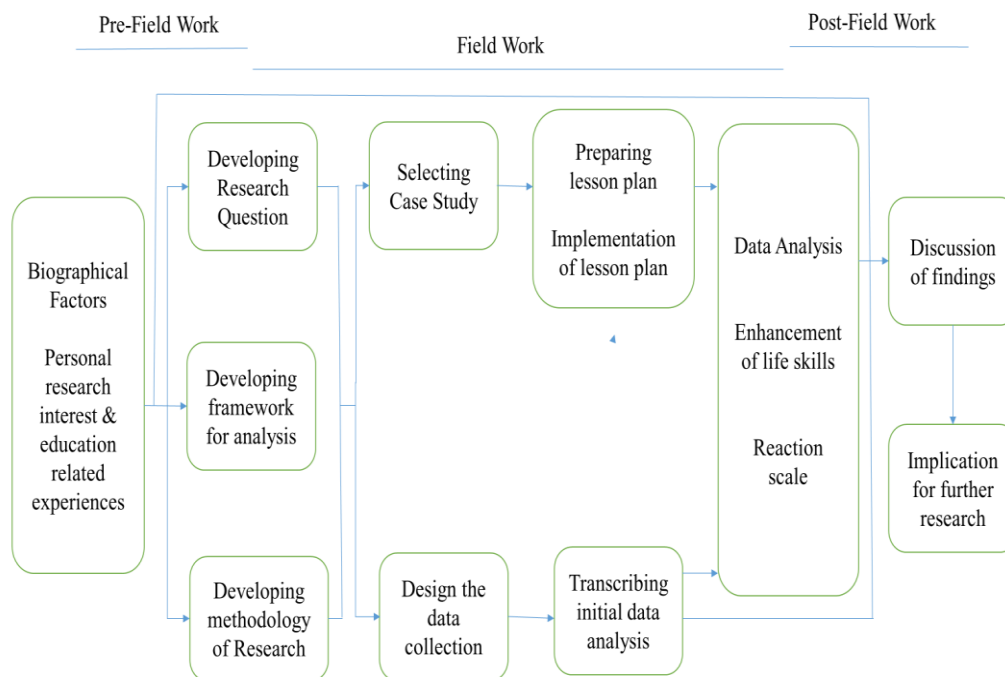
- to teach the content of social sciences
- to direct and engage the students in the activities
- to observe and record their reactions.

### **3.5 RESEARCH DESIGN**

Yin (2009) defined research design as 'a methodical strategy for moving from a starting point, which could be thought of as the questions that need to be answered initially, and ending with a set of conclusions (answers) regarding those questions.'

At the outset of study, the researcher started with preliminary research questions and a conceptual framework based on a literature review. Thus, the stages of pre-fieldwork, fieldwork, and post-fieldwork are interconnected and significantly overlap. The research design is presented in figure 3.1

**Figure 3.1 Research design**



(Adopted from Ramkumar, 2003 & Ramchandani, 2017)

### 3.6 SELECTION OF CASE STUDY SCHOOL

Researcher was working as a coordinator in one of the senior secondary school of Vadodara for past one year. Throughout this year researcher came to know about the environment of the school, curriculum and the students. Most of the time whenever students faced any difficulties, they directly approach to their teachers without putting any efforts to resolve on their own. Many a times students misunderstood at some point which led to a huge disagreement. Researcher had observed this behaviour of the students in the school which lacked basic life skills. As the students were occupied with their daily curriculum it was difficult to provide daily session to enhance the life skills. This gave an insight to the researcher to carry out a kind of work which will help the students in their daily life as well as in their future. Therefore, researcher has purposively selected this school as the case study school.

### **3.7 SAMPLE OF THE STUDY**

The purpose of the study was to enhance life skills through cooperative learning in social sciences among elementary secondary school students. For this purpose, researcher required interaction and participation with a group of students over an extended period of time to understand the process of enhancement in life skills. Therefore, researcher had selected grade VI students. Researcher was knowing these students for past one year. The years between 10-13 are considered as early adolescence which is befitting stage to inculcate, enhance and strengthen the life skills in them. This is because, at this stage the intellectual, social, emotional and physical development of early adolescents is distinct and hence it needs to be handled with extreme caution. Class VI students fall in the age group of 11 and 12. Researcher being a social science teacher thought of enhancing life skills in their social science class as this was the most fruitful area where students can remain engage for a longer period of time. Accordingly, class VI students were chosen for the study.

### **3.8 ETHICAL PROCEDURE**

Due to the nature of the current study researcher had to spend a significant amount of time (6 months) in the school interacting with a group of students on a daily basis. Researcher had to be honest with herself and other people in order to fulfil this need. Accordingly, researcher took permission from the school management to conduct the study. The school management was explained clearly about the purpose of study and assured them to maintain confidentiality of the information to be collected from the students. Parents of the students were also explained the same and their approval was obtained.

Researcher told students that she will be teaching them social sciences for six months using various cooperative learning techniques for carrying out the task, their active participation is required. Accordingly, students agreed to participate in the activities to be carried out by the researcher. During the execution of the activities, the regular teacher of the school too participated actively.

### **3.9 PREPARATION OF LESSON PLAN**

As per the school's policy researcher had taught the chapters of social sciences that has to be covered in the first semester. For this researcher had selected sup topic from

each chapter and identified life skills that can be enhanced from them. Researcher though taught all the topics of each chapter so that students can remain connected with researcher's teaching methodology. Following this, constructivist lesson plans were developed using seventeen cooperative learning technique from the content of social sciences textbook. The researcher had selected the topics from each chapter of history, civics and geography. All the ten life skills were covered in the topics; these skills overlapped in all the seventeen cooperative learning techniques.

The detailed lesson plan has been presented in Appendix XI. The description of topic taught through cooperative learning technique have been described below:

<b>HISTORY</b>	<b>CIVICS</b>
Chapter: In the earliest cities Topic: In search of raw material CLT: Round table (T1) Skills observed: Critical thinking skill and creative thinking skill Discussion on: (i) List down the raw materials that were brought by the Harappan people. (ii) If you are given the chance, what will you make something new out of these raw materials.	Chapter: Understanding diversity Topic: What does diversity add to our lives? CLT used: Write around (T2) Skills observed: Interpersonal skills, Self-awareness Discussion on: Group 1: Name three ways in which Samir Ek and Samir Do were different? Group 2: India is a country of many diversities. Explain giving examples. Group 3: How was unity in diversity seen during the British rule in India? Group 4: How does inequality come? Group 5: Why do you think Samir Do did not attend school?

<b>CIVICS</b>	<b>HISTORY</b>
Chapter: Diversity and discrimination Topic: Striving for equality CLT used: Structured problem solving (T3) Skills observed: Problem solving Discussion on: Sometimes people make prejudiced comments in our presence. We are	Chapter: What books and burials tell us Topic: cattle, horses and chariots CLT used: Note taking pairs (T4) Skills observed: Critical thinking, coping with emotions

<p>often not in a position to do anything about this because it is difficult to say something right then and there. Give your suggestions for the situation.</p> <p>Group 1- A friend begins to tease a classmate because he is poor.</p> <p>Group 2- You are watching TV with your family and one of them makes a prejudicial comment about a particular religious community.</p> <p>Group 3- Children in your class refuse to share their food with a particular person because they think she is dirty.</p> <p>Group 4- Someone tells you a joke that makes fun of a community because of their accent.</p> <p>Group 5- Some boys make remarks about girls not being able to play games as well as them.</p>	<p>Discussion on: Partner A will summarize the main points from the section of the content to partner B, who will offer corrections and additional information.</p> <p>Partner B will summarize the next section and partner a will offer correction and additional information.</p>
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<b>HISOTRY</b>	<b>GEOGRAPHY</b>
<p>Chapter: What books and burials tell us</p> <p>Topic: One of the oldest books in the world</p> <p>CLT used: Think pair share (T5)</p> <p>Skills observed: Creative thinking skills, decision making skills</p> <p>Discussion on: Imagine you found a magical library where books from different times and places are kept. You discover a book written today and another one called the Rigveda, written thousands of years ago. How do you think the stories, language, and purposes of these two books might be different?</p>	<p>Chapter: Latitude and longitudes</p> <p>Topic: Longitude and time, why do we have standard time?</p> <p>CLT used: Turn to your neighbour (T6)</p> <p>Skills observed: Interpersonal skill, empathy</p> <p>Discussion on: How does time vary with longitudes around the earth?</p>

HISOTRY	GEOGRAPHY
<p>Chapter: Motions of the earth  Topic: Rotation and revolution  CLT used: Students teams achievement division (STAD) (T7)  Skill observed: Effective communication  Discussion on: Group will discuss the topic and make sure that everyone has mastered the topic.</p>	<p>Chapter: In the earliest cities  Topic: The story of Harappa, what was special about these cities?  CLT use: Numbered head together (T8)  Skill observed: Interpersonal skill  Discussion on: Describe three important buildings in your city or village. Are they located in a special part of the settlement (e.g. the centre)? What are the activities that take place in these buildings?</p>

HISTORY	HISTORY
<p>Chapter: In the earliest cities  Topic: Houses, drains and streets  CLT used: Think, write, pair, compare (T9)  Skill observed: Effective communication  Discussion on: List at least two differences between the houses described here and those that you studied about in chapter 3.</p>	<p>Chapter: Kingdoms, kings an early republic  Topic: Janapadas  CLT used: Reciprocal teaching (T10)  Skills observed: Critical thinking, coping with stress  Discussion on: Teacher will provide a worksheet to be filled by the students, when they will be working in the group.</p>

GEOGRAPHY	CIVICS
<p>Chapter: Latitudes and longitudes  Topic: Heat zones of the earth, what are longitudes  CLT used: Quiz quiz trade (T11)  Skills observed: Decision making  Discussion on: (Each student will receive flashcard. Question will be written on front of the</p>	<p><b>Chapter:</b> Diversity and discrimination  <b>Topic:</b> Difference and prejudice  <b>CLT used:</b> Group problem solving (T12)</p>

<p>flashcard and answers will be written on back side of the flashcard.)</p> <ol style="list-style-type: none"> <li>1. Where does North Temperate Zone lie?</li> <li>2. Where does Torrid Zone lie?</li> <li>3. Between which parallels of latitudes is the Torrid Zone situated?</li> <li>4. What divides the earth into the eastern and the western hemispheres?</li> <li>5. What time does earth take, rotating from one degree longitude to next longitude?</li> <li>6. Which of the following zone is situated between 66°30' S and poles?</li> </ol>	<p><b>Skills observed:</b> Problem solving, decision making</p> <p><b>Discussion on:</b> How can the stereotype, that girls are a burden on their parents affects the life of a daughter? Imagine this situation and list at least two different effects that this stereotype can have on the way daughters get treated in the house.</p>
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CIVICS	CIVICS
<p><b>Chapter:</b> What is Government?</p> <p><b>Topic:</b> Levels of Government</p> <p><b>CLT used:</b> Rally coach (T13)</p> <p><b>Skills observed:</b> Self-awareness, coping with stress</p> <p><b>Discussion on:</b> Each pair of students will get two set of questions. Partner one will answer the question while partner two watches, listens, checks, coaches and praises. Then the two switch roles and partner one becomes the coach while partner two answer the question. Partners repeat this process until the assignment is completed.</p> <p><b>Question for Partner B</b></p> <p>Q1) Give some examples of the institutions of the Government.</p>	<p><b>Chapter:</b> What is Government?</p> <p><b>Topic:</b> i) Laws and the government ii) Types of government iii) Democratic government</p> <p><b>CLT used:</b> Three stay one stray (T14)</p> <p><b>Skills observed:</b> Self-awareness, interpersonal skill</p> <p><b>Discussion on:</b> 1) Why is a person driving without licence jailed or fined large amount of money? 2) Do you think it is important for people to be involved in decisions that affect them? Give two reasons for your answer. 3) Which type of government would you prefer to have in the place you live in? Why?</p>

<p>Q2) At which level does government take decision to construct a big children park in Patna?</p> <p><b>Questions for partner A</b></p> <p>Q1) What do governments do for their people?</p> <p>Q2) Why are some rules made?</p>	<p>4) According to you who should get voting rights?</p> <p>5) What are the three main features of a democracy?</p>
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CIVICS	HISTORY
<p><b>Chapter:</b> Panchayati Raj</p> <p><b>Topic:</b> Gram Sabha, the gram panchayat, three levels of panchayats</p> <p><b>CLT used:</b> Jigsaw II (T15)</p> <p><b>Skills observed:</b> Empathy, coping with emotions</p> <p><b>Discussion on:</b> 1- Describe Gram Sabha</p> <p>2- Describe the composition of Gram Panchayat</p> <p>3- How is Gram Sabha a key factor in making the Gram Panchayat play its role and be responsible?</p> <p>4- Who forms Gram Panchayat? For what term they are elected?</p> <p>5- Describe the three level of Gram Panchayat</p> <p>6- In some states Gram Sabha form committees. Why?</p>	<p><b>Chapter:</b> New question and ideas</p> <p><b>Topic:</b> Upanishads</p> <p><b>CLT used:</b> 3 Step interview (T16)</p> <p><b>Skills observed:</b> Effective communication, Problem solving</p> <p><b>Discussion on:</b> Question for Partner B</p> <p>1) According to you what happens after the death of a person?</p> <p>2) According to you what is the true meaning of life?</p> <p>3) Do you think the teachings of great thinkers should be recorded? Why?</p> <p>Question for Partner A</p> <p>1) Do you think the ideas of great thinkers should be taught in school? Why?</p> <p>2) What could be the reason that now a days people steal things, fights and kill someone?</p> <p>3) What would have happened to women in today's date if women were not given any rights, freedom, knowledge in past?</p>

## GEOGRAPHY

**Chapter:** Maps

**Topic:** Physical maps, political maps, thematic maps

**CLT used:** Write pair share (T17)

**Skills observed:** Creative thinking

**Discussion on:** Imagine you are creating a map for a new amusement park. Draw the map and include at least one unique attraction or area beside amusement park. Describe each attraction or area and explain how it adds to the overall fun and excitement of the park.

### 3.10 DATA COLLECTION METHODS

To fulfil the requirements of objectives of the study various data collection methods were employed. These are

- *Life Skills assessment scale developed by A. Radhakrishnan Nair, R. Subasree and Sunitha Ranjan (2010) to check the pre and post status of life skills among students*
- *Situational Test to check the pre status of life skills among students*
- *Observation*
- *Video recording*
- *Rubrics on ten life skills*
- *Situational test to check the level of life skills among the students after the implementation of cooperative learning technique.*
- *Reactional scale on Cooperative Learning Techniques.*

### 3.11 LIFE SKILLS ASSESSMENT SCALE (LSAS)\*

A standardised tool on Life Skills Assessment Scale (LSAS) developed by A. Radhakrishnan Nair, R. Subasree and Sunitha Ranjan (2010) was used to check the initial level of skill present in the students and the same test was used at the end of the program too. The multi-dimensional Life Skills Assessment Scale has one hundred (100) items, or statements, with a built-in five-point rating scale that allows the respondent to select the response that best describes them viz., Always true of me, Very true of me, Sometimes true of me, Occasionally True of me, and Not at all true of me. (**Note:** throughout this session and in chapter V, VI and VII \* this abbreviation will be used)

The LSAS has both positive and negative items. The items are arranged in a specific order: each dimension being measured has its corresponding item placed consecutively. For example, if there are five dimensions being measured, the items pertaining to the first dimension would be arranged in the sequence of 1st, 11th, 21st, 31st, and so on. This pattern continues for each dimension, with each set of items related to a particular dimension grouped together in a block. This method was chosen in order to lessen the halo effect, logical fallacies, and monotony for the respondent. To make sure that the double-barrelled statements are avoided, great care has been taken.

An additional benefit of the scale is that it can be used in a group setting or for self-administration.

The Life Skills Assessment Scale (LSAS) measures ten dimensions of life skills as indicated below:

**Table 3.1 Dimensions of Life Skills and Number of Items**

<b>Sr. No.</b>	<b>Dimensions of Life Skills</b>	<b>No. of items</b>
1	Self-Awareness	11
2	Empathy	11
3	Effective Communication	09
4	Interpersonal Relationships	11
5	Creative Thinking	08
6	Critical Thinking	11
7	Decision Making	11
8	Problem Solving	09
9	Coping with Emotions	11
10	Coping with Stress	08

### 3.11.1 TECHNICAL INFORMATION OF THE LSAS

#### Reliability

The validity and reliability of the Life Skills Assessment Scale were established through the collection of copious amounts of data. Internal consistency of the instrument was evaluated using test-retest, split-half and Cronbach's coefficient alpha reliability methods. After item analysis and construct validity evaluation, the scale's reliability was evaluated using Cronbach's coefficient alpha. In order to reach the peak reliability coefficient, test items with weak indicators were gradually removed. Without removing any items, the maximum reliability was nevertheless already attained. A Cronbach's alpha coefficient of 0.84 was found for the final summated scale of 100 indicators.

**Table 3.2. Reliability Coefficients for LSAS**

Type of Coefficient	Reliability
Split half	0.82
Test-Retest	0.91
Cronbach's Alpha	0.84

**Table 3.3 Reliability Coefficients dimensions wise for Life Skills Assessment Scale**

Sr. No.	DIMESIONS	RELIABILITY
1	Self-Awareness	0.31
2	Empathy	0.36
3	Effective Communication	0.39
4	Interpersonal Relationships	0.33
5	Creative Thinking	0.44
6	Critical Thinking	0.56
7	Decision Making	0.40
8	Problem Solving	0.47
9	Coping with Emotions	0.42
10	Coping with Stress	0.38

The aforementioned tables demonstrate the high reliability of the Life Skills Assessment Scale and the reasonably consistent scores over time, which align with the findings of Pershad and Wig's 1978 study.

### **Validity**

During the first phase of scale construction, a thorough exercise was conducted to determine the face and content validity of the Life Skills Assessment. After conducting an item discriminant analysis, it was determined that the scale could distinguish between high and low performers on the pertinent scales. By conducting structured interviews with teachers and significant others of the students (the study's sample, N=30) regarding high and low scores in Life Skills, the criterion validity was established. Additionally, each student's actual score as well as the teachers' evaluation of that score were taken into consideration, and those items were kept because they capture actual behaviour. 89% concurrence was found in the correlation between the percentage that each student attained in each skill and the teachers' evaluation of each student.

### **3.11.2 Instruction for administration and scoring**

#### **Procedure**

This Life Skills Assessment Scale is a self-administered scale. This scale can be administered to a group or to an individual. The administration process is described below.

In accordance with the information below, the person is instructed to take a comfortable seat and will receive instructions regarding the assessment. "This questionnaire evaluates the degree of life skills in the adolescent population. A few statements are listed below. They attempt to learn about your outlook on life and manner of living. Please carefully consider the statements, then select the response that best fits your reality. There are no right or incorrect responses. This will remain confidential and be used for research purposes. In order to ensure that the test taker has understood the instructions and has answered every question, the test administrator has set up some safeguards.

## Scoring

The Life Skills Assessment Scale is scored using a five-point rating system that goes from "Always true of me" to "Not at all true of me." Below is the scoring key.

**Table 3.4 Scoring of LSAS**

<b>Sr. No.</b>	<b>Dimensions of Life Skills</b>	<b>Items</b>	<b>Maximum Possible Score</b>
1	Self-Awareness	1*, 11, 20, 29, 36, 46,55, 65, 74, 80, 89	55
2	Empathy	2,12,21,30*,37,47*,56*,66, 81,90,96	55
3	Effective Communication	3,13,22,31*,38*,48*,57,67* & 75*	45
4	Interpersonal Relationships	4,14*,23,32,39,49, 58*,76*,82,91,98,	55
5	Creative Thinking	5*,40,50,59,68,77,83,92	40
6	Critical Thinking	6,15,24,41,51*,60*,69,78,84,93,99	55
7	Decision Making	7,16,25,33,42,52*,61*,70*,79*,85,94*	55
8	Problem Solving	8,17,26,34,43,53,62,71,86	45
9	Coping with Emotions	9*,18*,27,44, 54*,63,72*,87,95*,97*, 100*	55
10	Coping with Stress	10*,19*,28*,35*,45*,64*,73*,88*	40
	<b>Global Score</b>	<b>Sum of all the dimensions</b>	<b>500</b>

\* Represents items that are negative and need to be scored in reverse.

### 3.11.3 Interpretation

Higher scores indicate a higher degree of life skill in each dimension, per the LSAS description. To score the life skills for each dimension, follow the instructions provided below.

**Step-1** Transfer the responses (scores) into raw scores as given below.

Always true of me - 5

Very true of me - 4

Sometimes true of me - 3

Occasionally true of me -2

Not at all true of me -1

**Step-2** Reverse scores for items indicated with asterisk mark are given below.

Always true of me - 1

Very true of me - 2

Sometimes true of me - 3

Occasionally true of me -4

Not at all true of me -5

**Step-3** The raw score for each dimension is shown in the total score for that dimension. The Global Score of Life Skills is the total of all the scores attained under each of the ten dimensions.

#### 3.11.4 Interpretation of raw scores

Scoring of each skill is bifurcated on very high, high, average, low and very low. This is presented in the table given below.

**Table 3.5 Interpretation of raw scores**

Classification	Self-Awareness	Empathy	Effective Communication	Interpersonal Relationship	Creative Thinking	Critical thinking	Decision making	Problem solving	Coping with emotions	Coping with Stress	Global Scores (Total)
<b>Very High</b>	Above 48	Above 51	Above 40	Above 49	Above 38	Above 52	Above 48	Above 45	Above 47	Above 35	Above 417
<b>High</b>	44-48	46-51	36-40	45-49	35-38	48-52	44-48	41-45	43-47	31-35	387-417
<b>Average</b>	34-43	36-45	26-35	35-44	26-34	35-47	34-43	31-40	32-42	22-30	325-386
<b>Low</b>	29-33	30-35	20-25	30-34	20-25	30-35	28-33	25-30	26-31	16-21	293-324
<b>Very Low</b>	Below 29	Below 30	Below 20	Below 30	Below 20	Below 30	Below 28	Below 25	Below 26	Below 16	Below 293

### **3.12 SITUATIONAL TEST (ST)\***

To check the initial level of life skills among student's and after the implementation of CLT, situational test was developed and administered before and after conducting the activities. The situational test consists of ten situations where each situation covered all ten life skills. The situations were pertaining to their daily lives, which the students may have encountered in their lives. Each situation consists of 5 alternatives. The alternatives of each situation ranged from very high, high, average, low and very low. Among the given 5 alternatives students were supposed to put a (✓) on one appropriate alternative. Details regarding the situational test is presented in Appendix VIII and Appendix IX. Various situations in the situational test were adopted from CBSE life skills manual for teachers grade VI and life skills teachers' manual grade VII. These situations were then discussed with the school teachers and the experts. The school teachers have been teaching these students since few years and they were aware about the students. The suggestion given by teachers and one of the experts was to add five alternatives to gain responses. As many students are not capable of writing. (Note: throughout this session and in chapter V, VI and VII \* this abbreviation will be used)

### **3.13 OBSERVATION**

The researcher conducted ongoing observations during daily interactions with students in a cooperative learning environment. This qualitative approach aimed to capture the authentic behaviours and interactions among students, particularly focusing on those who had difficulty verbalizing their ideas. The class was composed of a diverse group of learners, making it crucial to closely monitor and document the experiences of students who struggled with communication.

Daily observations were meticulously recorded in a diary, allowing the researcher to gain deep insights into the challenges students encountered while working in groups or pairs. The continuous nature of these observations also contributed to maintaining student engagement and focus on their tasks. A sample of observation is presented in Appendix XXII.

### **1.14 VIDEO RECORDING**

The researcher who also served as the teacher, faced the challenge of observing all students simultaneously in the cooperative learning class. This limitation made it

difficult to document the behaviours and interactions of every student in real-time. To address this challenge the researcher employed video recording as a supplementary tool.

The video recordings captured the students' discussions, peer interactions and their engagement during activities. This allowed for a more comprehensive and detailed analysis of the students' behaviours and interactions providing rich qualitative data. By using video recordings, the researcher was able to overcome the constraints of real-time observation and ensure that no significant interactions were missed.

### **3.15 RUBRICS ON TEN CORE LIFE SKILLS**

Researcher wanted to observe the process of enhancement of life skills among students and thus rubrics on ten life skills were developed by the researcher. Therefore, Researcher has prepared rubrics on ten life skills. The rubrics were marked on daily basis after the completion of each activity to know the progress of the students in each activity. Each life skills rubric has four criterion which is assessed on a five-point scale, i.e. novice, approaching, emerging, developing and mastery. Novice indicates the lacking of fundamental knowledge and struggle of a student to perform basic task. In Approaching stage, the student has started acquiring some basic knowledge but their abilities are still limited. In Emerging level student have progress beyond the basics and is beginning to demonstrate more proficiency in the skill. In Developing level student have achieved moderate level of proficiency and confidence in the skill. In Mastery level student represents the highest level of proficiency and expertise in the skill. The rubrics were discussed with the school teachers, school coordinators and one of the experts and accordingly rubrics were developed looking into various dimensions to be observed on the daily basis.

The components of rubric are mention below. The detailed explanation of each component is mention in Appendix XIII to XXII.

<b>LIFE SKILLS</b>	<b>COMPONENTS</b>			
<b>Self-awareness</b>	Communication	Open minded	Committed	Reflected Thinker

<b>Empathy</b>	Active Listener	Reflective thinking	Responsible	Understanding
<b>Effective Communication</b>	Active Listener	Information Seeking	Empathetic	Concise
<b>Interpersonal Skill</b>	Active listener	Effective communication	Encourages participation	Checks for understanding
<b>Critical Thinking</b>	Understanding	Open minded	Creativity	Divergent Thinking
<b>Creative Thinking</b>	Imaginative	Open minded	Innovative thinking	Divergent thinking
<b>Problem Solving</b>	Pragmatic	Creative	Active listener	Collaboration
<b>Decision Making</b>	Think out of box	Logical Analysis	Risk taker	Communication
<b>Coping with Emotions</b>	Self-controlled	Expression	Self-reflection	Empathy
<b>Coping with Stress</b>	Awareness	Stress management	Support system	Resourcefulness

### 3.16 REACTION SCALE ON COOPERATIVE LEARNING TECHNIQUES

The tool aimed to know the reaction of the students towards cooperative learning techniques, this scale was developed by the researcher. Researcher has prepared 5-point Likert scale. The scale consists of 30 statements. These statements were related to the component like the advantage of activity in their learning process, enhancement of skill through CLT, understanding of subject's content through CLT, environment during the CLT class.

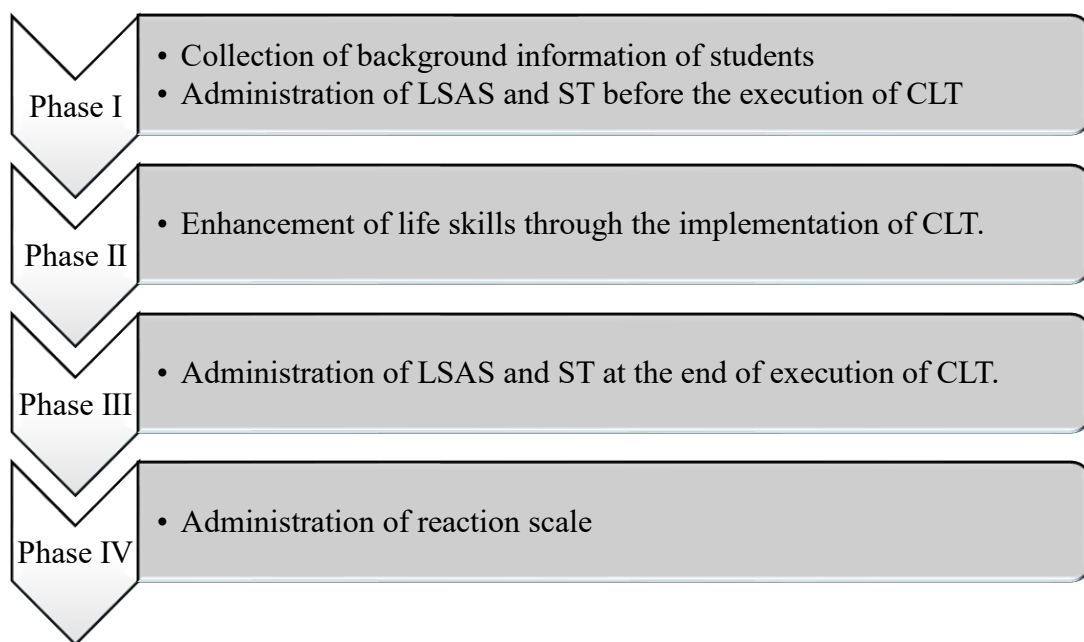
From the 30 statements, the scale consists of 19 positive statements (1, 2, 3, 4, 7, 8, 10, 11, 13, 14, 15, 18, 19, 20, 23, 24, 26, 27, 30) and 11 (5, 6, 9, 12, 16, 17, 21, 22, 25, 28, 29) negative statements. Five alternatives in each statement were given to know their preference towards the statement. These alternatives were Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree. These alternatives were given scores. The

scores were different for positive statement and negative statement. For positive statement the scores were Strongly Agree- 5, Agree- 4, Undecided- 3, Disagree- 2, Strongly Disagree- 1. For negative statement the scores were Strongly Agree- 1, Agree- 2, Undecided- 3, Disagree- 4, Strongly Disagree- 5.

The reaction scale was developed and then discussed with the school teachers, school coordinator, teachers from other schools and with one of the experts. As per the suggestions provided changes were made accordingly.

### 3.17 PROCEDURE FOR DATA COLLECTION

The data collection process spanned four distinct phases, utilizing various tools mentioned above and was conducted during the academic session from April 2023 to October 2023. The Researcher was personally involved in gathering the data during this period. These phases have been mentioned below.



#### **Phase I: Collection of background information of students**

Phase I was conducted in April 2023 at the beginning of the academic session. On day one, students were instructed to bring background information such as educational qualification and occupation of parents. Next day background information form was given to students to fill their background information such as age, family structure and language spoken at home, educational qualification and occupation of parents.

### **Phase I: Administration of LSAS and ST before the execution of CLT**

On third day first LSAS was conducted, the time allotted for the test was 80 minutes. Students were properly explained about the procedure of responding to the alternatives. Accordingly, the data was collected. The same procedure was followed for collecting data through situational test.

### **Phase II: Enhancement of life skills through the implementation of CLT**

The CLT was implemented in the first term of the academic session 2023-24. Five periods per week were allotted to grade VI in social sciences with the duration of 40 minutes per class. To observe all the students many a times their assembly period, proxy period, zero period, extra co-curricular period was utilized.

According to the nature of the CLT, the activities were carried out in two ways: group and pair. The data was collected through researcher's observation and video recording. This observation had provided the researcher in knowing the involvement of the students during the activities, either in group or pair.

During the observation of students working in pairs, the researcher systematically recorded interactions row by row. First, observations were made for the entire first row of student pairs, followed by the second row, and finally, the interactions of the third row were recorded. This process was time-consuming as expected. Often, video recordings of students working in groups and pairs had to be completed over two different periods.

### **Phase III: Administration of LSAS and ST at the end of execution of CLT**

Phase III was conducted in the month of November 2023. Both the test: Life skills assessment scale (LSAS) and Situational test (ST) were administered on two different days. First LSAS was administered and then next day ST was administered. The time duration to conduct the test remained the same as of initial level test.

### **Phase IV: Administration of reaction scale**

After the completion of all the activities including the administration of LSAS and ST, reaction scale was administered. The time duration allotted for the reaction scale was 40 minutes. Before administering the reaction scale, researcher had explained the purpose of the scale and had explained them about the statements and alternatives presented in the scale.

### **3.18 DATA ANALYSIS**

Data collection and analysis is a simultaneous activity in qualitative research. Accordingly, data analysis began with the beginning of the test phase. The LSAS and ST were analysed quantitatively. The data obtained through observation, video recording and rubrics have been analysed through qualitative content analysis. The data obtained through reaction scale was analysed in the form of Intensity Index.

### **3.19 UNITS OF DATA ANALYSIS**

The present study aims on the enhancement of life skills through cooperative learning among elementary school students. To achieve this aim researcher carried out activities among students of class VI to see the influence of cooperative learning techniques. Therefore, the students form an important unit or they form the entire case of class VI. Hence, the class VI A forms the case and its units are the thirty students (S1- S30).

### **3.20 PROCEDURE OF DATA ANALYSIS**

The data collected during the various phases was thoroughly examined and objectively analysed. The data analysis was conducted in four distinct stages.

#### **Stage 1: Administration of Life Skills Assessment Scale (LSAS) and Situational Test (ST) before the execution of CLT**

LSAS was analysed quantitatively, refer table 3.4. and table 3.5. LSAS was analysed as per the manual. ST was analysed quantitatively. Students were score on the scale very high, high, average, low and very low.

#### **Stage 2: Understanding the process of enhancement of Life skills**

The data analysis involved several steps, starting with the daily transcription of video recordings. This process was tiring and tedious, there was a risk of missing some important observation. To prevent this, the video was replayed multiple times during transcription to ensure nothing significant was missed. Rubrics were marked after each activity was completed. The transcriptions were carefully reviewed, and irrelevant information was removed. To obtain a comprehensive understanding of the enhanced life skills, the video recordings, the researcher's observations and the rubrics were triangulated. A coding framework was developed to systematically organize and to

accurately analyze the data. During the analysis, the activities performed by different groups were categorized using specific coding categories, which are described below.

#### ❖ Coding categories

Researcher had developed codes for the individual students, codes for CLT, codes for students working in group and codes for students working in pairs. Each cooperative learning techniques had been coded, as shown in the below table.

**Table 3.6 Coding of activities**

<b>Sr. No.</b>	<b>Cooperative learning techniques</b>	<b>Codes</b>
1	Round table	T1
2	Note taking pairs	T2
3	Write around	T3
4	Structured problem solving	T4
5	Think pair share	T5
6	Turn to your neighbour	T6
7	Students teams achievement division (STAD)	T7
8	Numbered heads Together	T8
9	Think write pair compare	T9
10	Reciprocal teaching	T10
11	Quiz-quiz trade	T11
12	Group problem solving	T12
13	Rally coach	T13
14	Three stay one stray	T14
15	Jigsaw II	T15
16	Three steep interview	T16
17	Write pair share	T17

The students participated in the activities were organized into five different groups, with group compositions changing every time for each group activity. During the analysis, each group was assigned a specific code, as shown in the table below.

**Table 3.7 Coding Categories of groups**

<b>Sr. No.</b>	<b>Groups</b>	<b>Codes</b>
1	Group one	G1
2	Group two	G2
3	Group three	G3
4	Group four	G4
5	Group five	G5

In some activities students were paired with the pairs that changed each time with each pair activity. During the analysis each pair was assigned a specific code as shown in the table below.

**Table 3.8 Coding Categories of pairs**

<b>Sr. No.</b>	<b>Pairs</b>	<b>Codes</b>
1	Pair 1	P1
2	Pair 2	P2
3	Pair 3	P3
4	Pair 4	P4
5	Pair 5	P5
6	Pair 6	P6
7	Pair 7	P7
8	Pair 8	P8
9	Pair 9	P9
10	Pair 10	P10
11	Pair 11	P11
12	Pair 12	P12
13	Pair 13	P13
14	Pair 14	P14
15	Pair 15	P15

To maintain the confidentiality of the students the name of students is not presented. Students were coded as per their roll number in the class. As there were 30 students in the class they were coded from S1 to S30.

### **Stage 3: Administration of Life Skills Assessment Scale (LSAS) and Situational Test (ST) after the execution of CLT**

LSAS was analysed quantitatively, refer table 3.4. and table 3.5. LSAS was analysed as per the manual. ST was analysed quantitatively. Students were score on the scale very high, high, average, low and very low.

### **Stage 4: Knowing the reaction of the students towards cooperative learning technique**

Data was collected using a reaction scale, assessing both positive and negative statements. Analysis involved calculating percentages, frequencies, intensity index and average intensity index.

#### **3.21 ESTABLISHING VALIDITY OF QUALITATIVE DATA**

At the end of data analysis triangulation was employed to support internal validity. Data from multiple sources including initial level test, video recordings, researcher's observations, rubrics and post status test were triangulated to strengthen internal validity.

#### **3.22 CHALLENGES OF CASE STUDY RESEARCH**

Using case study as a methodology presents several challenges for researchers during fieldwork. Initially, researcher struggled to balance both roles as a teacher and as a researcher. Managing video recording was particularly challenging due to the multitude of events occurring simultaneously. However, with time researcher was able to adapt and effectively observe and record the activities of the students.

Another challenge encountered by the researcher was the students' awareness during videography. Students often became cautious, exhibiting behaviours such as smiling at the camera or waving their hands. Additionally, when the researcher approached them to record their interaction, they sometimes remained silent. However, when they communicate with each other it was often in a casual manner.

Sometimes students use to discuss unnecessary talks which was not relevant to the task. During the observation the researcher noticed that some pairs or groups took longer time to complete activities than others. Those who finished before the allotted time often engaged in conversations that distracted other group members. Furthermore,

while the researcher was video recording interactions of one group another group would frequently interrupt the researcher seeking her attention to listen them.

The initial stage posed significant challenges. With multiple pairs and group activities occurring simultaneously, it was challenging to observe and attend to every incident as well as to focus on each group or pair adequately.

### **3.23 CONCLUSION**

This chapter has outlined the methodology used for this study highlighting the approaches and steps taken for data collection and analysis. It has discussed the research design, selection of case, the adoption and development of tools and the methods used for both collecting and analyzing data. The data generated through these methods were analysed quantitatively and qualitatively to answer the research questions of the study. Since this is case study research, situating the study in a proper context is essential in order to understand the process of enhancement of life skills among students of the selected school. Thus, it augurs to present the context of the study which is described in the subsequent chapter under the caption The Settings.