

**A STUDY ON STATUS OF
SOCIAL AND EMOTIONAL LEARNING AND
ITS RELATIONSHIP WITH GENDER AMONG THE ADOLESCENTS OF
VADODARA CITY**

A

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Investigator:

Ms. Swetha Mohan Das

Guide:

Dr. Deepika Rajawat

**DEPARTMENT OF EDUCATION (CASE)
FACULTY OF EDUCATION AND PSYCHOLOGY
THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA 390002**

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THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA 390002

March, 2020

DECLARATION

I, Ms. Swetha Mohan Das, hereby declare that the research work contained in this dissertation entitled 'A study on status of Social and Emotional Learning and its relationship with gender among the adolescents of Vadodara city' is my own work and it has not been previously submitted for any degree or diploma in any University.

Swetha Mohan Das

Investigator



DEPARTMENT OF EDUCATION (CASE)

FACULTY OF EDUCATION AND PSYCHOLOGY

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA, VADODARA 390002

CERTIFICATE

This is to certify that the research work contained in this dissertation entitled “A study on status of Social and Emotional Learning and its relationship with gender among the adolescents of Vadodara city” submitted by Ms. Swetha M Das to The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat for the degree of Master of Education is a record of bonafide original work conducted by her under my supervision and guidance. I certify that the dissertation work is fit for submission and evaluation.

Dr. Deepika Rajawat
Guide

March, 2020
Vadodara

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The conception of learning and teaching, rooted in Vygotsky's (1987) 'theory of learning and development' treats 'understanding' as the goal of education. Through dialogic inquiry, students at all levels are challenged and assisted to engage collaboratively in a spiral of knowing with respect to the areas of life that are of interest and concern to them. The aim is that, through the development of individual understanding achieved in collective knowledge building, they will be empowered to act and think effectively and responsibly, both alone and in collaboration with others.

The stage at which an individual makes some of their earlier decisions with respect to their future (both academic and non-academic) is the period of adolescence. Adolescence is a phase of tremendous learning, exploration, and opportunity. It is a dynamic maturational period during which young lives can pivot rapidly—in both negative and positive directions. A guided progression in emotional management and character building can be achieved through some systematic processes/programs.

Social and emotional learning (SEL) is the process through which an individual acquires and effectively apply the knowledge, attitudes & skills necessary to understand and manage emotions. The SEL, in addition to help a child to grow as a 'better' individual, is expected to have an impact on the education and learning process. The improved mental stability, strength and reasoning skill helps them to rationally handle the academic pressure, success and failures & various other influencing factors they go through.[Kastnek, (2011)]Scientific progress in understanding the status of social and emotional learning in adolescent development provides actionable insights into windows of opportunity during which policies can have a positive impact on developmental trajectories relating to health, education, social and economic success.

Many studies have been conducted on SEL worldwide by governments, organization and agencies like Collaborative for Academic, Social and Emotional Learning (CASEL,2012), Marcelino Botín Foundation (2013). However, limited researches are conducted on this topic in India. Since the Socio-economic conditions, education process & cultural practices in India is different from other countries, the status of the social and emotional learning in India may also be different.

In view of importance of the adolescent stage in an individual's life & potential of SEL to influence behavioral characteristics, understanding the status of social and emotional learning among adolescents would help the students, teachers, parents and the policy makers to deal with it effectively.

1.2 ADOLESCENCE STAGES

Adolescence period begins with puberty and ends with being independent as an adult. It is usually associated with the teenage years, but its physical, psychological or cultural expressions may begin earlier and end later. Age provides only a rough marker of adolescence, and scholars have found it difficult to agree upon a precise definition of adolescence.

UN (United Nations) for statistical consistency defines ‘adolescent’, as those persons between the ages of 15 and 24 years. The WHO (World Health Organization) defines an adolescent as any person between the ages of 10 and 19. APA (American Psychological Association) says Individuals can begin adolescence earlier than age 10 and some aspects of development often continue past the age of 18.

1.2.1 Changes in adolescent age

Adolescence is the period where an individual undergoes physiological and psychological changes. In addition cognitive, self, emotional and social developmental tasks are squeezed into these years. The fundamental purpose of these tasks is to form one’s own identity and to prepare them for adulthood. The major changes during adolescent age are:

a) Physiological development

Some of the most significant parts of pubertal development involve distinctive physiological changes in an individual's height, weight and body composition. These changes are largely influenced by the hormonal activity. It is the stage of life characterized by the appearance and development of secondary sex characteristics. The pituitary gland secretes a surge of hormones such as testosterone, oestradiol, cortisol, oxytocin, and dehydroepiandrosterone (DHEA-S) which are related to social and emotional functioning.

b) Psychological development

Along with the biological changes, adolescents experience psychosocial changes. According to Bradford Brown (1986), adolescents have four developmental tasks:

- To stand out: to develop an identity and pursue autonomy
- To fit in: to find comfortable affiliations and gain acceptance from peers
- To measure up: to develop competence and find ways to achieve
- To take hold: to make commitments to particular goals, activities and beliefs.

The physiological & psychological changes in this stage plays a vital role in the way a young individual perceives the process of learning they go through.

1.2.2 Adolescent brain and physiology of learning

Patricia Wolfe (2001) in her studies explained: Brain undergoes two main periods of increased production of gray-matter: the first begins during foetal development and lasts until around 18 months of age and the second occurs during early adolescence.

Gray matter is responsible for the generation of nerve impulses (processing of the brain's information), while white matter is responsible for the transfer of brain information from one lobe to another and out to the spinal cord. This transmission of nerve impulses is assisted by a fatty layer that wraps around the neuron's axon called a myelin sheath. Gray matter does not have a myelin sheath, while white matter does. This myelin sheath allows impulses to travel faster and more efficiently, but isn't fully formed until around age twenty-five, with the frontal lobe being the last area of the brain to be myelinated.

The incomplete myelination and rapid growth of gray matter, that are characteristic of adolescent brains do not allow the same cortical connections that occur in adulthood; thus, adolescent thinking is in a realm of its own. The frontal lobe houses the area of the brain where we process higher cortical functions like reasoning, problem solving, short term memory, planning and executing behavior, language, motor function, social mirroring, judgment, and impulse control. Until the frontal lobe has matured, other parts of the brain (temporal lobe, parietal lobe and the amygdala) are used for language development and decision making. Because of the involvement of other parts of the brain in these functions, adolescents tend to lack impulse control, demonstrate more irrational behaviours, and often make decisions based on their feelings rather than logical thought processing. All of the above characteristics affect the young individual's ability to learn. It is very important that the adolescent and the changes happening to them are well received & reflected by the parents, schools and the society at large for the smooth transitioning of a child to an adult.

1.2.3 Role of educational institutions in adolescent developmental process

Adolescents spend a large proportion of their day in school or pursuing school-related activities. While the primary purpose of school is the academic development of students, its effects on adolescents are far broader, also encompassing their physical and mental health, safety, civic engagement, and social development. Further, its effects on all these outcomes are produced through a variety of activities including formal pedagogy, after-school programs,

caretaking activities (e.g., feeding, providing a safe environment) as well as the informal social environment created by students and staff on a daily basis. The social and emotional learning connects the dots between the academic development and progress of an individual being ‘worthy’ of surviving in future.

1.3 SOCIAL AND EMOTIONAL LEARNING (SEL)

According to CASEL (2012), “Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.” Research shows that SEL contributes to better self-esteem, mental health and stress management. It helps to develop greater perseverance and resilience.

1.3.1 Theoretical basis of Social and Emotional Learning

The root of SEL can be traced back to ancient education system. When Plato wrote about education in *‘The Republic’*, he proposed a holistic curriculum that requires a balance of training in physical education, the arts, math, science, character, and moral judgment. (Lori , 2011) A more elaborated reflection of the same can be observed in the ancient Indian education philosophies too.

Intelligence at once was considered as a single entity and children were a blank slate that could be trained to learn anything. Gardner (1943) comes up with Multiple Intelligence theory. He stated that intelligence is a sum of multiple intelligences. He listed seven types of intelligences viz, Linguistic, Logical- Mathematical, Musical, Kinesthetic, Spatial, Interpersonal and Intrapersonal Intelligence. These are valued in the school, home and society they live in. Mayer and Salovey (1997) formulated the concept of emotional Intelligence. Emotional Intelligence (EI) is defined as “ the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions.”

Daniel Goleman (1995), reported a mix model according to which Emotional Intelligence (EI) is an array of various competencies and skills that drive leadership performance. The five main EI constructs according to him are self-awareness, self-regulation, social skill, empathy and motivation. Not soon enough the Goleman constructs were embraced in the form of programs in SEL. “EI has provided a theoretical platform for SEL. The credit goes to Goleman for introducing SEL, that today many schools are getting positive outcomes and benefits from SEL programs”. (Goetz, 2009)

1.3.2 Framework for Social and Emotional Learning

The SEL framework developed by CASEL (2012) identifies five core competencies namely:

- a) **Self-awareness:** Self-awareness is the ability of an individual to know his/her strengths and limitations, with a well-grounded sense of confidence, optimism, and a growth mindset. The focus here is on:
 - Identifying emotions
 - Accurate self-perception
 - Recognizing strengths
 - Self-confidence
 - Self-efficacy
- b) **Self-management:** Self-management deals with the ability to effectively manage stress, control impulses, and motivate one-self to set and achieve goals. The focus here is on:
 - Impulse control
 - Stress management
 - Self-discipline
 - Self-motivation
 - Goal setting
 - Organizational skills
- c) **Social awareness:** The ability to understand the perspectives of others and empathize with them, including those from diverse backgrounds and cultures is called the social awareness. The focus here is on:
 - Perspective-taking
 - Empathy
 - Appreciating diversity
 - Respect for others
- d) **Relationship skills:** Relationship skill is one of the most important one which is increasingly lack in the era of digital. It is the ability to communicate clearly, listen well, cooperate with others, resist inappropriate social pressure, negotiate conflict constructively, and seek and offer help when needed. The focus here is on:
 - Communication
 - Social engagement

- Relationship building
 - Teamwork
- **Responsible decision-making:** It is the ability to take constructive choices about personal behaviour and social interactions based on ethical standards, safety, and social norms.
 - Identifying problems
 - Analyzing situations
 - Solving problems
 - Evaluating
 - Reflecting
 - Ethical responsibility

All these five competencies have its own role in an individual’s personal, professional and most importantly social life. The SEL can vastly help to consciously build such skills in a systematic learning process.



Figure 1-1 Core SEL competencies, CASEL wheel

1.3.3 Sample social emotional learning programs

Schools nowadays are increasingly implementing SEL policies and curricula to foster caring relationships between teachers and students, develop cooperation and reduce conflict among students, (Elias et al., 1997). Some SEL programs running now are described below indicating its areas of applications in student's life.

- a) **Promoting Alternative Thinking Strategies (PATHS).** PATHS is an SEL program for preschool and elementary school designed to increase social and emotional competence, prevent violence, aggression, and other behaviour problems; improve critical thinking skills, and enhance classroom climate (Greenberg, 2003). Teachers trained on PATHS teach lessons on self-control, social problem solving, emotional awareness and understanding. PATHS also include lessons on labelling and expressing feelings using drawings of faces expressing different feelings and through conversations about feelings.
- b) **The Responsive Classroom (RC) Approach.** The RC approach is a way of teaching that integrates the social, emotional, and academic needs of children. RC includes different classroom practices designed for both optimal learning and creating a classroom where children feel safe, challenged, and joyful. Examples of classroom practices include: The morning meeting wherein children and teachers greet each other, share the day's news, and prepare for the day ahead; and the use of teacher-led collaborative problem-solving strategies such as role-playing and conferencing. Central to these classroom practices are a balanced emphasis on children's academic and social learning, as well as creating an environment that is academically challenging and building social skills (Rimm-Kaufman, Fan, Chiu, & You, 2007). Once classroom practices of RC are in place, extensions to the larger school and family community are made.
- c) **The RULER Approach to SEL.** RULER is anchored in the achievement model of emotional literacy. It states that acquiring and valuing the knowledge and skills of Recognizing, Understanding, Labelling, Expressing and Regulating emotion (i.e., the RULER skills) is critical to youth development, academic engagement and achievement, and life success (Rivers & Brackett, 2012). RULER's sustainability model includes systematic professional development for the adults involved in the education of children, including teachers, support staff, school and district leaders, and parents. RULER provides opportunities for adults and students to practice applying and modelling their RULER skills in ways that make emotions central to learning, teaching, and leading.

- d) **Indian Social and Emotional Learning Framework (ISELF)** ISELF is a research-based educational resource developed by The Teacher Foundation (TTF) to foster social emotional development of Indian children, using a carefully age-banded approach, from 6 years to 18 years. ISELF will help teachers, counsellors and facilitators to develop 5 vital social-emotional competencies in children: Self Awareness, Self-Management, Relationship Management, Social Awareness and Decision Making .The program has launched in 2019 January, and are operating programs in schools of major cities like Banglore, Nagpur, Ahmedabad etc .At moment data about the impact of ISELF is not available as it is still in nascent stage, but the program is expanding its footprints in India rapidly.
- e) **Social and Emotional Learning Programme (SELP)** is a Social emotional learning program developed by **Rajawat.D (2018)** to identify and improve the SEL status of social and emotional learning of preschoolers. The students are identified through the rating social emotional status of parents and SELP is implemented along with the regular curriculum. The SELP comprises of 5 dimensions – self-concept, cultural sensitivity, awareness and management of feelings, social relationships and decision making, problem solving & creativity. The SELP was implemented for entire one academic year and intervention of the program led to the enhancement in SEL status of the students. It also helped in enhancement of physical, cognitive and language development of preschoolers.

1.3.4 The impact of SEL

The social and emotional learning in a contemporary context leaves a vital impact in education and holistic development of a young individual. A few of the powerful impacts that SEL leaves behind are described below:

- a) **Impact on academic outcomes:** Meta-analysis by CASEL (2001) involving more than 2,70,000 students (those who participated in evidence-based SEL programs) showed 11 percentile-point gain in academic achievement compared to students who did not participate in SEL programs. They also showed improved classroom behaviour, an increased ability to manage stress and depression, and better attitudes about themselves and others.
- b) **Impact on equity and poverty:** Study conducted by Brookings Working Group on Poverty and Opportunity (2015) says SEL is proved to develop competencies that are

critically important for the long-term success of all students in today's economy. These competencies favour better employment opportunity and work excellence.

- c) **Impact on lifetime outcomes:** American Journal of Public Health foundation (2015) has published a study showing a significant association between SEL skills acquired in kindergarten and young adult's performance in education, employment, criminal activity, substance use and mental health.
- d) **Benefit on cost analysis:** The aggregate result of the benefit cost analysis conducted by researchers at Columbia University (2015) found that SEL shows an average benefit-cost ratio of about 11 to 1. This means that, on average, for every \$1 invested in SEL program, there is a return of \$11.

1.3.5 Status of SEL programmes in India

With the ongoing societal changes in India, educationists feel that it is necessary to include SEL as a subject in the curriculum to ensure overall grooming of the new generation.

A national level research on Indian Social and Emotional Learning Framework (ISELF) was launched by the Bangalore based organization, The Teacher Foundation [TTF (2019)] The organization has launched the programme recently and they are yet to publish result and impact of the program on the school climate and student life.

The need of providing proper environment for the optimum growth of a child has been reflected in various policies. Some of the policies are:

1.3.5.1 Policy Perspectives

The National Curriculum Framework (NCF, 2005): Adolescence Education (AE) is guided by the National Curriculum Framework, 2005 which recommends that education should instill “independence of thought and action, sensitivity to others’ well-being and feelings, learning to respond to new situations in a flexible and creative manner, predisposition towards participation in democratic processes, and the ability to work towards and contribute to economic processes and social change.” Based on these principles, AE aims to provide young people with accurate, age appropriate and culturally relevant information; promote healthy attitudes and develop skills to enable them to respond to real-life situations effectively. It also promotes the awareness about the adolescents’ reproductive and sexual health concerns including HIV and providing information about substance use.

National Youth Policy (NYP, 2014) provides a vision for the youth which is “to empower the youth of the country to achieve their full potential, and through them enable India to find its rightful place in the community of nations”. To achieve this vision, everyone

must work towards meeting 5 key objectives- create a productive workforce, instill social values & promote community service, develop a strong and healthy generation, facilitate participation and civic engagement, support youth at risk & create equitable opportunity for all.

Secondary Education commission (1952-1953) has mainly focused on secondary education curriculum that helps to develop adolescent as an ideal citizen, develop the capacity for earning money, leadership quality and human virtues.

National Education Policy (2019) has referred the term SEL first time in any education policies from India. NEP 2019 mentioned SEL as “students must develop not only cognitive skills - both ‘foundational skills’ of literacy and numeracy and ‘higher-order’ cognitive skills such as critical thinking and problem-solving skills - but also social and emotional skills, also referred to as ‘soft skills’, including cultural awareness and empathy, perseverance and grit, teamwork and leadership, among others. The process by which children and adults acquire these competencies is also referred to as Social and Emotional Learning (SEL)”.

Well-researched and articulated standards for social and emotional learning of Indian school children are not formulated yet. Despite the high importance accorded to social and emotional education in NCERT’s National Curriculum Framework 2005, this domain has been largely ignored and side-lined by schools.

1.4 SEL IN ADOLESCENTS AND ITS RELATIONSHIP WITH GENDER

The SEL status is influenced by the factors such as motivation, social engagement, self-regulation, gender etc. (Zins, Bloodworth, Weissberg, & Walberg, 2007) The degree of capacity to process emotional information accurately and efficiently is different from individual to individual and gender is one of the significant factor to determine it. (Jordan and Troth, 2002)

1.4.1 Need of SEL in India among the adolescents

Many organizations and education professionals in India are beginning to examine the domain of social and emotional learning with a focus on nurturing students as self-aware, responsible and confident individuals. As Zoe Weil (2016) says: “the world becomes what we teach”. This could be extended to embrace the idea that the world will not become what we don’t teach. There are evidences to believe that the tendency of bullying, aggression & depression in youngsters are increasing in recent time. A class 9 boy was found brutally stabbed to death by a senior in Vadodara School. (Times of India, June 23, 2018). Around

42% of students of class 4 to 8 and 36% of class 9 to 12 are subjected to harassment by peer in the school. (A survey by Times of India, July 28, 2017). On an average of 7500 cases of suicide has been reported related to exam stress and failure in the year 2014-16 (NCRB, 2015) So the youth power should accelerate to a positive direction – this is where SEL can contribute in many ways. However, it is largely side-lined by education practitioners in India owing to the absence of a well-defined and clearly articulated age appropriate standards.

1.4.2 Relevance of gender factor in SEL

Gender tends to denote the social and cultural role of each sex (male and female) within a given society. Rather than being purely assigned by genetics, as sex differences generally are, people often develop their gender roles in response to their environment, including family interactions, the media, peers, and education. The World Health Organization (WHO) defines gender as: “Gender refers to the socially constructed characteristics of women and men, such as norms, roles, and relationships of and between groups of women and men. It varies from society to society and can be changed.” The degree of decision-making and financial responsibility expected of each gender varies between cultures. But, gender roles are not set in stone. In many societies, men are increasingly taking on roles traditionally seen as belonging to women, and women are playing the parts previously assigned mostly to men. Gender roles and gender stereotypes are highly fluid and can shift substantially over time.

There are evidences to believe a positive co- relation between gender and SEL. The difference between male and female when overall emotional learning was concerned, found inconsistent in various parts of the world. In some of the studies it was found that the females scores higher than the males and they posses higher level of emotional and interpersonal skills than males in the United States (Van Rooy, Alonso, & Viswesvaran, 2005). A study carried out in Tamil Nadu, India, found that in medical graduates, females have higher emotional stability than male (Chandra, Gayatri, & Devi, 2017). The females scored higher mean EI scores than males among Sri Lankan medical students(Ranasinghe, Wathurapatha, Mathangasinghe, & Ponnampereuma, 2017) However, in some cases, no clear difference in SEL has been found between the genders (Aquino, 2003) Similar studies carried out across the world has indicated the correlation between gender and status of Emotional intelligence .

1.5 RATIONALE OF THE STUDY

The SEL plays a vital role in the holistic development of an individual and the same has a significant influence in the lifelong outcomes. It is very important to evaluate the effect of SEL in Indian context and check if it needs to be taken up ‘seriously’ by the educators and the policy makers for achieving the intended purpose of education.

A wide variety of studies on SEL have been conducted globally- especially in USA & European countries.

Mc Graw Hill education conducted a survey (2018) among a USA national sample of 1,140 teachers, administrators and parents and found out that teachers, parents and administrators overwhelmingly agree that SEL is just as important as academic learning.

	Teachers	Admins	Parents
Don't know/No opinion	4%	1%	7%
Strongly disagree	0%	1%	3%
Somewhat disagree	3%	2%	8%
Somewhat agree	27%	32%	31%
Strongly Agree	66%	64%	51%

Table 1-1 Response to the statement: SEL is just as important as academic learning

The above report indicates a strong lenience of the stakeholders towards SEL and its importance on academic learning. However, the context and findings of developed world cannot be copied directly without doing further evaluation of the same in Indian context.

The adolescence age is the period where the students undergo various physiological and psychological changes to reach to an adult individual. They undergo tremendous amount of mental pressure to meet societal and parental expectations during this period. The science today has a better understanding of the behaviour of adolescent brain. As per the research on physiology of brain by Patricia Wolfe (2001), brain undergoes two main periods of increased production of gray-matter: the first begins during fetal development and lasts until around 18 months of age and the second occurs during early adolescence. The increased production of grey matter helps in development of better reasoning ability, problem solving, planning and executing behavior, language, motor function, social mirroring, judgment, impulse control etc. So, adolescence is the right period to implement SEL programmes on those who missed it in the early childhood. We need to revisit the need gap of this age group in the wake of this revised understanding. The average age of a 9th grader will be between 13-15 which will fall

within the age group of adolescence based on different scales as mentioned earlier. Hence the investigator proposes to take up the studies among the 9th graders to represent adolescent age group.

Gender has always been a stone pillar in Indian society in terms of its role in opportunity and societal status. With the child reaching adolescent age, this ‘perceived’ role and status starts to get imposed on them. A comparison of SEL status between the male and females might shed lights on whether they really stand equal in SEL status and if not, where do they stand in terms of different components of SEL. Such reflections might help to determine the difference in support a young individual of adolescent age might require from the home, school and society at large to excel in life or at least improve their chance of success and happiness in life. As it is observed across India, crime rate, suicide tendency and depression of young adults is increasing vehemently in Vadodara too in recent years. This indicates a research on the topic in Vadodara would reflect the impact of SEL on this age group across the country. Hence, the city of Vadodara is selected for the study.

The investigator will be referring the five components developed by Rajawat (2018) & CASEL (2012) to derive SEL status. These are self-concept, cultural sensitivity, awareness and management of feelings, building positive relationships & problem solving and decision making. The investigator thus believes that a study of Social & Emotional level among adolescent and its relationship with academic achievement would benefit to derive relevant academic policies and propagate messages to the parents on importance of the same.

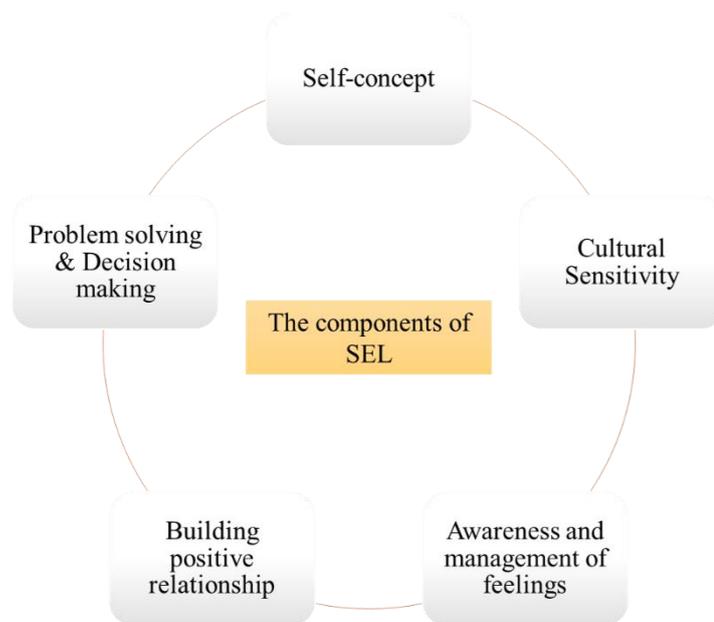


Figure 1-2 The components of SEL in the study

1.6 STATEMENT OF THE PROBLEM

A study on status of Social and Emotional Learning and its relationship with gender among the adolescents of Vadodara city.

1.7 OBJECTIVES OF THE STUDY

- a) To study the status of SEL among the adolescents
- b) To study the status of SEL among the adolescents with reference to five components of SEL:
 - i. Self-concept
 - ii. Cultural sensitivity
 - iii. Awareness and management of feelings
 - iv. Building positive relationships
 - v. Problem solving and decision making
- c) To study the relationship between status of SEL and gender.
- d) To compare the status of five components of SEL with reference to Gender

1.8 OPERATIONAL DEFINITION OF TERMS

- a) **Social and Emotional Learning status:** SEL status achieved by the student of 9th standard in five dimensions:
 - i. Self-concept: Self-concept will be described in terms of development and expression of awareness of self in terms of abilities, characteristics and preferences.
 - ii. Cultural sensitivity: The cultural sensitivity will be defined as knowing India and its cultural values in his / her sociocultural context.
 - iii. Awareness and management of feelings: Awareness and management of feelings means to know, identify, regulate and understand their own feelings as well as that of others.
 - iv. Building positive relationships: It means to strengthen relationship with peers, teachers & family. It also includes development of sharing, cooperation & friendship, affection, care and belongingness.
 - v. Problem solving and decision making: It means strategies to deal with negative emotions like anger, aggression, fear, selfishness. It also deals with understanding good/bad situation and make ethically right decisions in

difficult situations. Finding out solution to daily problems and using various strategies to enhance creativity is also a part of it.

- b) **Gender:** The gender in this study is the sex of an individual – Male or Female students based on their biological differences.

1.9 DELIMITATION OF THE STUDY

The study is delimited to the 9th grade CBSE students of Vadodara city.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

The review of related literature (RRL) provides the researcher an undertaking of the previous work that has been done. It is a forerunner for the researcher and shows the way through which the new comer should proceed. The related literature shows that the evidence already available, solves the problem adequately without further investigation, and avoids the risk of duplication. It also suggests methods of research appropriate to the problem and locate comparative data useful in the interpretation of results. A review of related literature helps not only in identifying the problem but also in the formulation of hypothesis and in the selection of tools to be employed. According to Best (2003), “Review of related literature is a summary of writing of recognized authorities and of research, provides evidence that the researcher is familiar with what is already known and what is still unknown and untested. Since effective research is based upon past knowledge, this step helps to eliminate duplication of what has been done and provides useful hypothesis and helpful suggestions for significant investigators.”

2.2 OBJECTIVES OF REVIEW OF RELATED LITERATURE

- To provide theories, ideas, explanations or hypothesis, that may prove useful in the information of a new problem.
- To provide the source of hypothesis. The researcher can formulate research hypothesis on the basis of available studies.
- To suggest methods, procedures, source of data and statistical techniques appropriate to the solution of the problem.
- To locate comparative data and findings useful in the interpretation and discussion of results. The conclusion drawn in the related studies may be significantly compared and may be used as the subject for the findings of the study.
- To provide some insight regarding strong points and limitations of the previous studies.
- To enable the researcher to improve his own investigation.

2.3 LITERATURES REVIEWED

The following literatures have been reviewed and analyzed to understand the importance of the topics to be researched.

Kumar (1972) conducted a study on ‘Social Climate in a School and the character of pupils’. The aim of the study was to examine the effects of six types of Social climate in Schools of students’ behavior in terms of personal adjustment, Social adjustment, Attitude towards certain educational objects and scholastic achievement. The hypotheses tested in the study were – different social climates in the School. Tend to produce differences in student behavior in terms of – (i) Personal adjustment, (ii) Social adjustment, (iii) Value orientation, (iv) Attitude towards certain educational objects and (v) Scholastic achievement. Educational Environment and Student morale. The findings were that different social climates have differential effects on certain aspects of student behavior. Personality characteristics such as emotional instability, depressive tendency, moral values, activity, introversion differentiate between climate groups and to a lesser extent, characteristics such as a hippomanic temperament and dominance tended to differentiate them. The results of the study point to a possibility of basic causal link between climate characteristics and pupil variables.

Morgan (1991), conducted a study entitled, “Educating the emotions” as a philosophical contribution to the problem of whether it is possible for educators to engage in practices that contribute to emotional development of their students. The thesis argues that educators can enhance the emotional life of children, principally by ensuring that students acquire a well-rounded, liberal education. Emotions are viewed as passive status, which have a significant cognitive dimension. They are passive in two ways — Firstly they are a status of feelings (they are passion) and secondly, they are a status in which subject is affected by situation They can be distinguished from actions and rationality. It is shown that we can evaluate particular emotional status, such as Smith’s love for Jones, in terms of their appropriateness. The study also shown that emotional lives can be evaluated. As a whole, emotions can be seen as playing a significant role in making important decisions and in self-improvement. It is argued that educators can ensure that students receive a well-rounded education, including a study of various disciplines. Thus, teachers can ensure that students learn various strategies of emotional control and they can attempt to teach students to take their emotions seriously.

Durlak & Wells (1997) did an analysis on Primary prevention mental health programs for children and adolescents in Oregon county. 77 primary prevention programs

designed to prevent behavioral and social problems in children and adolescents. Findings provide empirical support for further research and practice in primary prevention. Most categories of programs produced outcomes similar to or higher in magnitude than those obtained by many other established preventive and treatment interventions in the social sciences and medicine. Programs modifying the school environment, individually focused mental health promotion efforts, and attempts to help children negotiate stressful transitions yield significant mean effects ranging from 0.24 to 0.93. In practical terms, the average participant in a primary prevention program surpasses the performance of between 59% to 82% of those in a control group, and outcomes reflect an 8% to 46% difference in success rates favoring prevention groups. Most categories of programs had the dual benefit of significantly reducing problems and significantly increasing competencies. Priorities for future research include clearer specification of intervention procedures and program goals, assessment of program implementation, more follow-up studies, and determining how characteristics of the intervention and participants relate to different outcomes.

Schoiack (2000) on the study entitled, “Promoting social emotional competence: Effects of a socio— emotional learning program and corresponding teaching practices in schools” has investigated effects of a social and emotional learning program and corresponding teaching practices on the students’ social competence. Two groups of 2nd and 8th grade students from 15 schools were followed for over 2 years. Schools were randomly assigned to experimental and comparison groups. Teachers taught a social emotional learning program in experimental classrooms for over two years. All the students were then given a group administered survey assigning their social cognition. Analysis demonstrated that lessons combined with support of students’ emotional regulation were associated with lower aggression. This confirms the need for investment in SEL programs to support social emotional learning in schools.

Mathur, Dube and Malhotra (2003) studied Emotional Intelligence and its interrelationships of attribution, taking responsibility and scholastic performance in adolescents. The results indicated inter-relationship between casual factors of attribution, taking responsibility and scholastic performance of subjects. Hence, all the casual factors of attribution and taking responsibility have interrelationships. It can therefore be stated that all the variables have impact on achievement of the adolescents.

Raquel, Alexandra & Maria (2006) did a research on the effects of a social—emotional learning program on elementary school children: the role of pupils’ characteristics, funded by Science and Technology Foundation, Portugal. This quasi-experimental

exploratory study investigated whether a social–emotional learning program, implemented during a 1-year period, could lead to gains in social–emotional competencies and a reduction in internalizing and externalizing problems. Furthermore, it showed which pupils would benefit most from the program. The program was applied to 213 fourth-grade Portuguese pupils. One hundred five controls followed an Origami curriculum during the same period. Sixteen teachers also participated in this study. Self-report (pupils) and hetero-report (teachers) questionnaires were administered before and after the intervention. There were significant intervention gains in some social–emotional competencies, namely, peer relations and social competence, but no gains were found in internalizing and externalizing problems. Intervention pupils with average pre-test scores profited more in self-management and peer relations than controls. Boys showed greater gains in self-management, aggressiveness, and social problems than girls. There were no significant differences regarding socioeconomic status.

Merrell, Juskelis, Tran & Buchanan (2008) conducted a study, “Social and emotional learning in the classroom: Impact of Strong Kids and Strong Teens on students’ social-emotional knowledge and symptoms”. The study consists of three pilot studies that were conducted to evaluate the recently developed Strong Kids and Strong Teens social-emotional learning programs by University of Oregon for increasing students' knowledge of healthy social-emotional behaviour and decreasing their symptoms of negative affect and emotional distress. The first study included 120 middle school students (in grade 5) from a general education student population. The second study included 65 general education students in grades 7–8. The third study included 14 high school students (grades 9–12) from a regional special education high school, who were identified as having emotional disturbance. The three groups participated in either the Strong Kids (groups 1 and 2) or Strong Teens (group 3) programs, receiving one-hour lessons and associated assignments once a week for 12 weeks. Social-emotional knowledge and negative emotional symptoms of participants were assessed using brief self-report measures, in pre-test-post-test intervention designs. All three studies showed that, by participating in the respective programs, students evidenced statistically significant and clinically meaningful changes in desired directions on the target variables.

Manisha (2009) The study “Effect of emotional intelligence on psychological distress of high school students” is based on the assumption that application of emotional skills can reduce distress among high school students. One thousand high school students (500 male + 500 female) of IX and X grade were selected as a sample for the study. Hindi adaptation of

Cornell medical index health questionnaire was used to measure the psychological distress of high school students. Emotional intelligence scale was used to measure emotional intelligence. After analysis, it was found that out of 1000 high school students taken as sample, 562 students were having psychological disturbance. Results indicated negative correlation between emotional intelligence and its dimensions with psychological distress. Emotional intelligence was found to be helpful in reducing psychological distress of students.

Cahill et al (2011) on the study ‘An Integrative Approach to Evaluating the Implementation of Social and Emotional Learning and Gender-Based Violence Prevention Education” finds out Evaluation studies often use stand-alone and summative assessment strategies to examine the impacts of Social and Emotional Learning (SEL) and Gender-based Violence (GBV) prevention education programs. However, implementation research is yet to offer an integrative framework that can be used to investigate the implementation drivers that lead to the uptake of programs that pursue SEL and GBV prevention agendas. The researchers address this gap in research by presenting a framework developed to investigate factors affecting the implementation of the Resilience, Rights and Respectful Relationships program, an SEL and GBV prevention education program developed for primary and secondary schools in the state of Victoria, Australia. Drawing upon and advancing a conceptual framework for implementation fidelity proposed by Carroll and colleagues authorities discuss the iterative process designed to investigate the individual, school and system level factors within the wider political and ideological setting(s) of the program that impact on its implementation. Within this iterative process, schools highlight the need to focus on 'the ecology of relations' that exists between various implementation elements, and their possible mediating impact on program delivery, uptake and outcomes.

Durlak, Dymnicki, Pachan, Taylor, Schellinger&Weissberg (2011) CASEL has conducted a meta-analysis of 213 school-based, universal social and emotional learning (SEL) programs involving 270,034 students (kindergarten through high school). Compared to controls, SEL participants demonstrated significantly improved social and emotional skills, attitudes, behavior, and academic performance that reflected an 11-percentile-point gain in achievement. School teaching staff successfully conducted SEL programs. The findings add to the growing empirical evidence regarding the positive impact of SEL programs. Policy makers, educators, and the public can contribute to healthy development of children by supporting the incorporation of evidence-based SEL programming into curriculum.

Gordon, Mulhall, Shaw &Weissberg (2011) studied the “Social and emotional learning for Illinois Students”. The SEL Standards in Illinois have been maintained since

2004 and there has been constant progress in the implementation of SEL across the state. The remarkable progress made in Illinois is a benchmark and valuable example to others who are keen to take on this work across the country. SEL goals were taken into consideration in the construction of Illinois Children's Mental Health Act and executed in all schools. The study showed that there is a continuous progress in the physical and mental health of school going students after the implementation of the programme.

Kastanek (2011) has conducted a study on "Social and Emotional Learning in Elementary School Children" to determine the need of social and emotional instruction in elementary classrooms. Specifically, the programs of "A Violence Prevention Program and Responsive Classroom" was researched and studies measuring their success in both academic and behavioral areas were examined. In addition, teachers of the Amery School District (Stout- WI) were surveyed about their experiences regarding a need for such programming, and the effectiveness of the current programs being used in the district. According to the significant research available, there is ample evidence of both academic and behavioral progress to support the inclusion of social and emotional learning in elementary classrooms. The results of the survey clearly show that there is a need for social and emotional learning and such instruction contributes positively to both the learning environment and academic success.

Romer, Ravitch, Tom (2011) has conducted a study "Gender differences in positive social-emotional functioning" The researchers investigated gender differences of children and adolescents on positive social and emotional competencies using a new strength-based measure of positive social-emotional attributes and resilience—the Social-Emotional Assets and Resilience Scales (SEARS) cross-informant system. Caregivers, teachers, and students in grades kindergarten through 12 from schools across several U.S. states completed SEARS rating scales and self-report forms. Females were consistently rated as having significantly higher total scores on all versions of the SEARS assessment system, indicating consistent perceptions of females' higher levels of social-emotional competencies by all rate. These differences were not impacted by the grade students were in or the gender of the parent or teacher rate. Implications of these findings and future directions are discussed

Mark brown, Susan, Maria & Peter (2012) has analyzed the importance of an SEL approach (RULER) on the study "Enhancing academic performance and social and emotional competence with the RULER feeling words curriculum". A pre- and post-test quasi-experimental design was used to test the impact of a 30-week, theoretically-based social and emotional learning (SEL) curriculum, The RULER Feeling Words Curriculum ("RULER"),

on the academic performance and social and emotional competence of 5th and 6th grade students (N = 273) in fifteen classrooms in three schools. Academic performance was assessed by report card grades. Social and emotional competence was assessed with teacher reports of student behavior. Students in classrooms integrating RULER had higher year-end grades and higher teacher ratings of social and emotional competence (e.g., leadership, social skills, and study skills) compared to students in the comparison group. This study provides preliminary empirical evidence that SEL programs like RULER improve important student outcomes.

Clouder, Mikulic, Leibovici-Mühlberger, Yariv & Finne, (2013) in the report “Social and Emotional Education. An International Report” has analysed the status of SEL programs at different countries (Argentina, Austria, Israel, Norway and South Africa). The study found that there is a clear link between social and emotional learning and academic success. Thus, inclusion of such programs should continue. Countries like Argentina and South Africa need to work more on the effective functioning of SEL especially in terms of teacher quality the study suggested.

Nekane, Aitor, & Lierie (2013) did a study on “Emotional intelligence and depressed mood in adolescence: A multilevel approach”. The aim of the study was to analyze the relationship between individual emotional intelligence, group emotional intelligence and depressed mood in adolescence from a multilevel approach. The study sample comprised 2,182 adolescents (1,127 female and 1,055 male) aged between 12 and 18 years). They attended 14 secondary schools in the Basque Country (northern Spain) and were grouped into 118 different classes. A two-level model (students nested in classes) with three variables of level 1 (attention, clarity and repair of emotions) and one variable of level 2 (class emotional intelligence) was used to examine their influence on depressed mood. The results indicated that clarity and the ability to regulate emotions at the individual level and emotional intelligence at the class level are important for explaining depressed mood. In this way, the study provides an integrative approach to research on the psychosocial well-being of adolescents that takes into account emotional variables located at different levels.

Belfield, Bowden, Klapp, Levin, Shand & Zander, (2015) did a study “The Economic Value of Social and Emotional Learning” to find the economic value of SEL. The researcher used Benefit-cost analysis as a tool for evaluating the economic profitability of an investment. It helps to determine the rate of return on both individual and social investments in education. The report reveals that on an average, every dollar invested in SEL

programming yields \$11 in long-term benefits. These benefits include reduced juvenile crime, higher lifetime earnings, and better mental and physical health.

Domitrovich (2017) conducted a study entitled “Social-Emotional Competence: An Essential Factor for Promoting Positive Adjustment and Reducing Risk in School Children” The study shows: Social-emotional competence as a critical factor to target with universal preventive interventions that are conducted in schools because the construct

(a) associates with social, behavioral, and academic outcomes that are important for healthy development;

(b) predicts important life outcomes in adulthood;

(c) Can be improved with feasible and cost-effective interventions

(d) Plays a critical role in the behavior change process.

Based on the above constructs, an intervention model is proposed for how schools should enhance the social and emotional learning of students in order to promote resilience. Suggestions are also offered for how to support implementation of this intervention model at scale.

Rajawat.D (2018) has conducted a case study on “Development and implementation of Socio-Emotional learning programme for Pre-schoolers”. The constructs and the framework of Social and Emotional Learning Programme (SELP) was build, caring the needs of the students identified through socio-emotional status scale implemented on parents of selected school in Vadodara. The researcher conducted an in-depth study on how the developed SELP can make a difference in SEL of pre-schoolers. The SELP comprised of five dimensions: self-concept; cultural sensitivity; awareness & management of feelings; social relationships; and decision making, problem solving & creativity. SELP was implemented for entire one academic year, 2015-2016 and was validated by experts. The study revealed that the intervention on SEL led to the enhancement in self-concept, understanding and managing emotions, establish relationships and bonds with people, helps resolving conflicts and making right decisions, enhances aesthetics, cultural sensitivity and creativity. It gave enough opportunities to the children for exploration, experimentation, hands on experiences which led to the enhancement of not only Socio-Emotional development but also physical, cognitive & language development. The study revealed that SELP led to the building of positive relationship between student-teacher, student-student and teacher-parent.

Jevora, Debora, Maria & Linda (2018) studied “Emotional Intelligence and Its Relationship with Levels of Social Anxiety and Stress in Adolescents” The aim of this work is to extend the research on the relationships between emotional intelligence and various

indicators of subjective well-being in adolescents, such as stress and social anxiety. The existence of differences in stress and social anxiety as a function of an emotional intelligence score is also analyzed. A total of 505 Spanish adolescents between the ages of 12 and 18 participated in the study. The results obtained support the existence of a positive relationship between trait emotional intelligence and subjective well-being. Likewise, the existence of a negative association between emotional intelligence and stress, and emotional intelligence and social anxiety, is confirmed.

Telzer, Hoorn, Rogers (2018) conducted a study “Differential effects of parent and peer presence on neural correlates of risk taking in adolescence” showing the social influence as an opportunity for promoting social adjustment, which can redirect advances in child development and behavior. Susceptibility to social influence is associated with a host of negative outcomes during adolescence. However, emerging evidence implicates the role of peers and parents in adolescents for building positive and adaptive adjustment. The study reveals the influential models about the processes underlying social influence, with an emphasis on internalizing social norms, embedded in social learning and social identity theory. Researchers linked this behavioral work to developmental social neuroscience research, rooted in neurobiological models of decision making and social cognition. Work from this perspective suggests that the adolescent brain is highly malleable and particularly oriented toward the social world, which may account for heightened susceptibility to social influences during this developmental period.

2.4 IMPLICATION OF REVIEWED STUDIES ON PROPOSED STUDY

The investigator has come across several studies that are related to SEL showing its significant relation with improved social and emotional skills, attitudes, behavior, academic performance and gender. With the researches available, there is ample evidence to support the inclusion of social and emotional learning in classrooms. [Kastanek.J, (2011) Merrell, Juskelis, Tran & Buchanan (2008), Durlak, Dymnicki, Pachan, Taylor, Schellinger& Weissberg (2011)] The Economic value of Social and Emotional Learning were taken up by some of the researchers which shows the benefits of cost analysis in SEL investment. On an average, for every \$1 invested in SEL program, there is a return of \$11. [Belfield, Bowden, Klapp, Levin, Shand & Zander, (2015)] International reports on the running SEL programs strongly supports the need of its implementation in global level. [Clouder, Mikulic, Leibovici-Mühlberger, Yariv & Finne, (2013), Durlak, Dymnicki, Pachan, Taylor, Schellinger& Weissberg (2011)] Indian researchers also come across with the studies

showing the relation between EI (which is highly related to SEL) and academic achievements [Manisha (2009)] A significant relationship between Social emotional level and gender was also observed by some of the studies. [Romer, Ravitch, Tom (2011) and Cahill *et al* (2011)] A study after implementation of SEL Program revealed that the intervention on SEL led to the enhancement in self-concept, understanding and managing emotions, establish relationship with people, resolving conflicts and making right decisions, enhances aesthetics, cultural sensitivity and creativity among pre-schoolers. [Rajawat (2018)] Findings of study conducted by Telzer (2018) suggests that the adolescent brain is highly malleable and particularly oriented toward the social world, which may account for heightened susceptibility to social influences during this developmental period.

As compared to the studies world-wide, the researches in India on SEL are limited in number. Considering the importance of the adolescent stage, the investigator did not come across any study in India that measures the SEL status of adolescents. Further, the study of 5 components to identify the contributor to the overall status of SEL is also missing. The investigator did not come across any research that measures the relation between SEL and gender among adolescents in Indian context.

2.5 CONCLUSION

The review of related literature paved the way for the investigator to get acquainted with the studies that were done in the related field. The investigator had a good opportunity to trespass all the main areas connected to the present study and identify the existing research gap leading to take up the present study.

CHAPTER 3

METHODOLOGY

3.1 INTRODUCTION

A sound and well-organized methodology includes the appropriate strategy in stepwise execution of the investigation. A correct result can only be attained when the methods and procedures used in the study are well organized. The methodology chapter discusses about the idea, plan and procedures for the study. It also elaborates the design, population, samples, sampling procedures, tools and techniques of data collection, procedures applied for data collection and data analysis.

The present chapter is primarily devoted to describing the methodology and procedure followed for the conduct of the study.

3.2 STATEMENT OF THE PROBLEM

“A study on status of Social and Emotional Learning and its relationship with gender among the adolescents of Vadodara city.”

3.3 OBJECTIVE OF THE STUDY

- a) To study the status of SEL among the adolescents
- b) To study the status of SEL among the adolescents with reference to five components of SEL viz self-concept, cultural sensitivity, awareness and management of feelings, building positive relationships and problem solving and decision making.
- c) To study the relationship between status of SEL and gender.
- d) To compare the status of five components of SEL with reference to Gender

3.4 HYPOTHESIS

There will be no significant relation between status of SEL and gender among the adolescents of Vadodara city.

3.5 OPERATIONALISATION OF THE TERMS

- a) **Social and Emotional Learning status:** SEL status achieved by the student of 9th standard in five dimensions:
 - i. Self-concept: Self-concept will be described in terms of development and expression of awareness of self in terms of abilities, characteristics and preferences.

- ii. Cultural sensitivity: The cultural sensitivity will be defined as knowledge about India and its cultural values in his / her sociocultural context.
 - iii. Awareness and management of feelings: Awareness and management of feelings means to know, identify, regulate and understand one's own feelings as well as that of others.
 - iv. Building positive relationships: It means to strengthen relationship with peers, teachers & family. It also includes development of sharing, cooperation & friendship, affection, care and belongingness.
 - v. Problem solving and decision making: It means strategies to deal with negative emotions like anger, aggression, fear, selfishness. It also deals with understanding good/bad situation and make ethically right decisions in difficult situations. Finding out solution to daily problems and using various strategies to enhance creativity is also a part of it.
- b) **Gender:** The gender in this study is the sex of an individual – Male or Female based on their biological differences.

3.6 DELIMITATION OF THE STUDY

The study is delimited to the 9th grade CBSE students of Vadodara city.

The average age of a 9th grader will be between 13-15 based on CBSE guideline on admission to 1st standard. United Nations (UN), for statistical consistency defines 'adolescent', as those persons between the ages of 15 and 24 years. The WHO (World Health Organization) defines an adolescent as any person between the ages of 10 and 19. APA (American Psychological Association) says Individuals can begin adolescence earlier than age 10 and some aspects of development often continue past the age of 18. So, the target group (9th grader) falls within the age group of adolescence based on different scales.

The study is limited to the CBSE schools of Vadodara city which would help to maintain homogeneity of the source of data in terms of their educational exposure (board of examination, CBSE in this study) and demography (urban, in this study Vadodara city)

3.7 METHODOLOGY OF THE STUDY

3.7.1 Design of the study

The present study was carried out to know the status of SEL and its relationship with gender among the 9th grade students of CBSE schools in Vadodara city.

In this study, survey research design is adopted. A survey attempts to establish the range and distribution of some social characteristics, such as education, training, occupation or location and to discover how these characteristics may be related to certain behavior patterns or attitudes. [Aguinis (2009)]

Survey research design is chosen for the study because the sampled elements and the variables that are being studied are simply being observed as they are without making any attempt to control and manipulate them.

3.7.2 Population

Population is a statistical concept, which means a group of larger number of units from which a smaller group of some units is selected and used for achieving some purpose. It means the aggregate or totality of objects or individuals regarding which inferences are to be made in a sampling study. As stated by Van Dalen (1999) a population may refer to all cases of any specified group of human beings or non-human being entities such as objects, geographical areas, time units, methods, texts or schools.

The population of the proposed study comprised of adolescents of Vadodara city.

3.7.3 Sample

Once the population was defined, the next step was to select a representative sample from the population. A sample is a small proportion of population selected for observation and analysis. It is a collection consisting of a part or subset of the objects or individuals of population which is selected for the purpose of representing the population. By observing the characteristics of the sample, one can draw certain conclusions or inferences about the characteristics of the population from which it is drawn.

In order to identify the samples, probability sampling method is selected so that each population element (schools in current context) has a known (non-zero) chance of being

selected as a sample. Of the choices of probability sampling methods, simple random sampling method is chosen.

According to Thompson (2012) Simple random sampling is a sampling design in which k distinct items are selected from the n items in the population in such a way that every possible combination of k items is equally likely to be the sample selected.

Since the study is delimited to 9th grade CBSE students of Vadodara city, a total of 34 CBSE schools in Vadodara city will come under the purview of the study. For a fair representation of the population, it was decided that 18% of the CBSE schools, i.e. 6 schools to be selected as sample for the study. A single division from each selected school with an average student count of 40 numbers will make the total size of sample as 240.

S.no	Sample	Female	Male	Total
1	School -1	20	21	41
2	School -2	3	10	13
3	School -3	24	28	52
4	School -4	21	16	37
5	School -5	28	19	47
6	School -6	20	28	48
Total		116	122	238

Table 3-1 Details of the sample

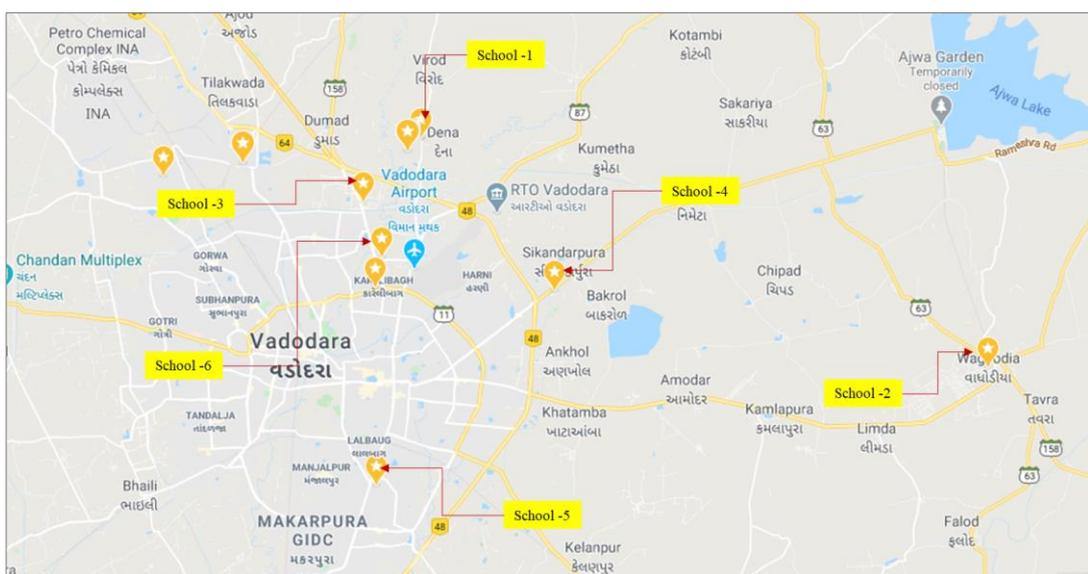


Figure 3-1 Location map of selected schools

3.7.4 Tools for data collection

A suitable research tool is pivotal to the validity of the findings of any research study. In order to collect the necessary data needed and to group them to test the hypothesis, research tools are of utmost importance. In research, the data collection tools are used to obtain standardized information from the sample. The completion of any research work investigation rests purely on the choice of a proper tool and its most effective application.

The investigator has prepared a questionnaire by referring the questionnaire that was proposed and used by Rajawat.D (2018) & Goleman,D.(1998). It comprises of 5 main components of SEL, namely,

- Self-concept
- Cultural Sensitivity
- Awareness and management of feelings
- Building positive relationship
- Problem solving & Decision making

The average time to complete a survey is decided as 20-25 minutes considering the average time duration of a class period is 40- 50 minutes leaving adequate time for introduction, questionnaire distribution and collection of the filled questionnaire. A total of 45 questions were prepared based on above 5 components of SEL. The average time allocated for each question was 30 seconds. Same questionnaires were distributed for both male and female students so that the results can be directly compared.

The distribution of questions in each of the above category is shown in the Table 3-2 Distribution of questionnaire.

S.no.	Component	No. of questions	Weightage
1	Self-concept	9	20%
2	Cultural Sensitivity	7	16%
3	Awareness and management of feelings	12	27%
4	Building positive relationship	10	22%
5	Problem solving & Decision making	7	16%
Total		45	100%

Table 3-2 Distribution of questionnaire

3.7.5 Scoring

The investigator has used a 5-Point Likert type Scale to identify the level of agreement to each of the 45 statements.

A Likert scale is a psychometric scale commonly involved in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research.

The Likert scale was prepared with 5 distinctive options. The students were asked to tick (√) the most appropriate option that reflects them rather than what they want to be. The sample template of the questionnaire is shown in the Table 3-3 Sample template of the questionnaire.

HOW MUCH DOES EACH STATEMENT APPLIES TO YOU?					
<i>Read each statement and decide how strongly the statement applies to you. Make sure that the answer reflects you rather than what you want to be.</i>	<i>Tick (√) which option applies to you</i>				
	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Undecided</i>	<i>Agree</i>	<i>Strongly agree</i>
Statement					

Table 3-3 Sample template of the questionnaire

The questionnaire prepared has both positive and negative statements. The positive statements are scored as shown in the Table 3-4 Scores for positive statements

Degree of conformity	Score
Strongly disagree	1
Disagree	2
Undecided	3
Agree	4
Strongly agree	5

Table 3-4 Scores for positive statements

In case of negative statements, the scores were given based on the Table 3-5 Scores for negative statements.

Degree of conformity	Score
Strongly disagree	5
Disagree	4
Undecided	3
Agree	2
Strongly agree	1

Table 3-5 Scores for negative statements

The total score indicated the degree of SEL status of a student with respect to all 5 predefined components. With a total of 45 questions the range of theoretically achievable SEL score would be 45 to 225 where a student who opts strongly disagree for all positive statements and strongly agree for all negative statements shall get a score of 45 and a student who opts strongly agree for all positive statements and strongly disagree for all negative statements shall get a score of 225.

The high score indicated favorable degree of Social and emotional learning status of a student (male or female) where as low score indicated unfavorable degree of Social and emotional learning level.

The range of achievable score are divided in to four different categories namely,

- i. Very Poor
- ii. Poor
- iii. Average
- iv. Good

The Table 3-6 SEL status scale indicates the categories & corresponding range of total SEL score achieved.

RANGE OF SCORES	DESCRIPTION
45 to 89	Very Poor
90 to 134	Poor
135 to 179	Average
180 to 225	Good

Table 3-6 SEL status scale

3.8 DATA COLLECTION

After finalizing the sample and the tools to be used, the investigator got acquainted with the testing procedures and possible eventualities. The investigator made necessary arrangements for the administration of the research tools.

The schools were approached with the permission letter issued from the department of Education and explained the details and importance of conducting the study. The schools made necessary arrangement to conduct the survey. Some schools denied the permission and alternative schools were chosen from the back up sample list to full fill the sample requirement.

The data from the filled SEL Questionnaire from students were collected and consolidated. The statistical computation of the consolidated data was done later.

3.9 STATISTICAL TREATMENT OF DATA

The statistical analysis of the data was undertaken using procedures appropriate for the study. The data obtained were subjected to statistical computation with a view to derive certain conclusions regarding the Social and emotional learning status of the 9th grade CBSE students. The obtained scores of the pupils were analyzed by computing the Mean and Standard deviation for the entire sample. The evaluation of difference in the score achieved by male and female were also found out by employing ‘z’ test.

Arithmetic mean

The arithmetic mean is the most commonly used and readily understood measure of central tendency in a data set. The arithmetic mean of a set of observed data is defined as being equal to the sum of the numerical values of each and every observation divided by the total number of observations.

The formula for the arithmetic mean is

$$A = \frac{1}{n} \sum_{i=1}^n a_i = \frac{a_1 + a_2 + \dots + a_n}{n}$$

Where,

A = Arithmetic mean

n = size of the population

ai = individual values in data set

Standard Deviation

The Standard Deviation is a measure of the amount of variation or dispersion of a set of values. A low standard deviation indicates that the values tend to be close to the mean (also called the expected value) of the set, while a high standard deviation indicates that the values are spread out over a wider range.

The formula for the sample standard deviation is

$$s = \sqrt{\frac{1}{N - 1} \sum_{i=1}^N (x_i - \bar{x})^2}$$

Where,

S = Standard deviation

xi = each value of the population

N = size of the population

\bar{x} = the population mean

Z Test

As the study was aimed at analyzing the significant difference between the different groups under study, the z-test value was used.

A z-test for two means is a hypothesis test that attempts to make a claim about the population means (μ_1 and μ_2). More specifically, the researcher is interested in assessing whether or not it is reasonable to claim that the two population means are equal, based on the information provided by the samples.

The z-test can be calculated using the following formula:

$$z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

Where:

\bar{x}_1	Mean of sample 1
\bar{x}_2	Mean of sample 2
σ_1	Standard deviations of the population 1
σ_2	Standard deviations of the population 2
n_1	Sizes of the Sample 1
n_2	Sizes of the Sample 2

The above formula allows to assess whether there is a statistically significant difference between two means. The null hypothesis is rejected when the z statistic lies on the rejection region, which is determined by the significance level (α) and the type of tail (two tailed, left-tailed or right-tailed).

CHAPTER 4

DATA ANALYSIS

4.1 INTRODUCTION

The data analysis is an important part of a research study. It not only gives answer to questions paused but also leaves scope for future data collections. For the research study to be meaningful the data collected is to be analysed and interpreted in as many ways as possible. The purpose of the present investigation is to assess the status of SEL and it's 5 components among the 9th grade CBSE students in Vadodara city and compare it with respect to gender. The data collected from 238 students spread across 6 schools have been analysed and presented in this chapter.

The total SEL score and individual scores of 5 SEL components achieved was taken into consideration. The Mean, Standard Deviation, and Z- value of both the groups under study (Male & Female) were calculated. The details of this analysis are presented based on the objectives of the study.

4.2 ASSESSMENT OF SEL SCORE

For analysis and interpretation of the data, the raw scores obtained by each student i.e., 238 students were distributed into frequency table with a class interval of five. The total scores achieved ranged from 136 to 197. The frequency distribution table is given below:

Class	Count	Percentage
135 - 139	1	0.4%
140 - 144	1	0.4%
145 - 149	4	1.7%
150 - 154	28	11.8%
155 - 159	37	15.5%
160 - 164	21	8.8%
165 - 169	34	14.3%
170 - 174	46	19.3%
175 - 179	29	12.2%
180 - 184	23	9.7%
185 - 189	12	5.0%
190 - 194	1	0.4%
195 - 199	1	0.4%
Total	238	100%

Table 4-1: Total SEL score – Frequency distribution table

The following bar – diagram gives a vivid picture of the percentage distribution of the total scores.

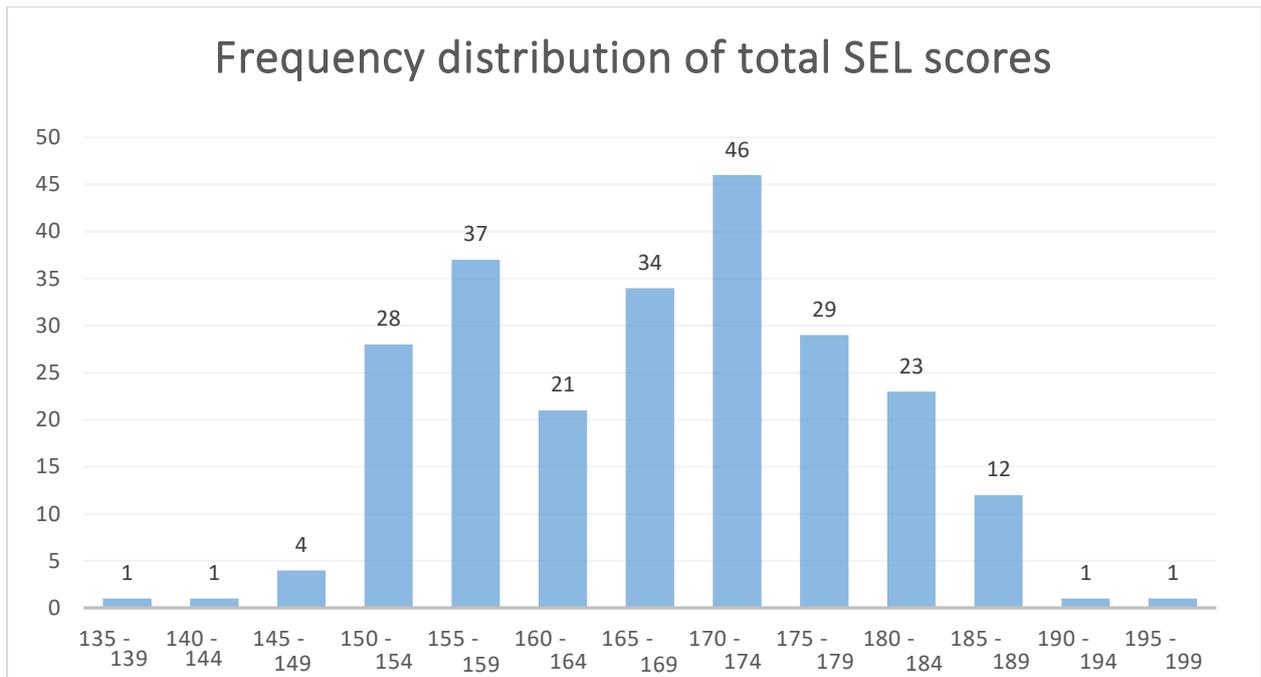


Figure 4-1 Frequency distribution of total SEL scores

Number of students	Mean	SD
238	167.68	11.3

Table 4-2: Total SEL score – Statistical data

Table 4-2: Total SEL score – Statistical data shows that the mean value of SEL score is 167.68 and the standard deviation is 11.3.

The investigator further divided the sample based on the SEL score achieved. The Table 4-3 indicates the range of scores used to categorize the sample.

Range of scores	Description	Number of students	Percentage
45 - 89	Very Poor	0	0%
90 - 134	Poor	0	0%
135 - 179	Average	201	84%
180 - 225	Good	37	16%

Table 4-3 Range of scores used to categorize the sample

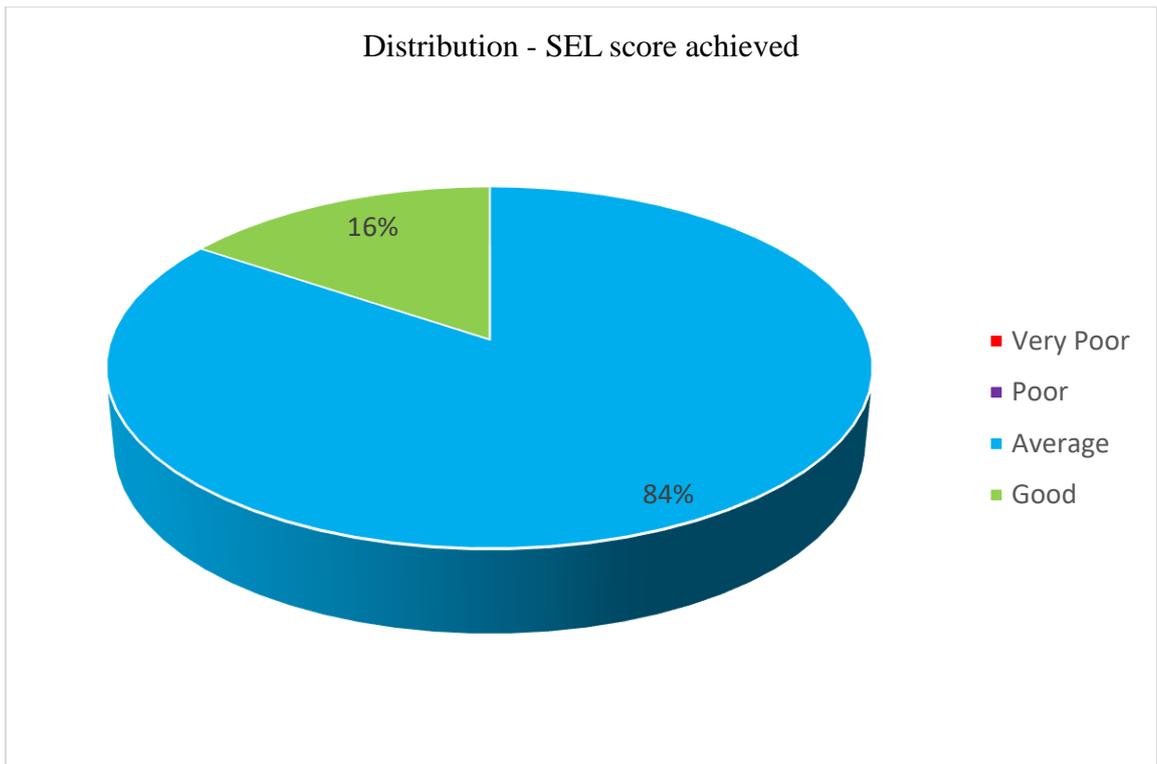


Figure 4-2 Distribution - SEL score achieved

The above table indicates that most of the students (84%) have an ‘average’ level of SEL. The 14% of the sample are having ‘good’ level of SEL. There are no representations in very poor and poor categories.

4.3 ANALYSIS OF SEL COMPONENTS

Once the overall SEL score is assessed, the researcher sub divided the score with reference to the 5 components of SEL:

- i. Self-concept
- ii. Cultural sensitivity
- iii. Awareness and management of feelings
- iv. Building positive relationships
- v. Problem solving and decision making.

This study would help to understand the SEL status of the 9th grade CBSE students in Vadodara city with reference to the individual components of SEL. The results are presented in the Table 4-4

Component of SEL	Number of questions	Maximum Achievable Score	Score Achieved (Mean)	% Score (Mean)
Self-concept	9	45	34.1	75.7%
Cultural Sensitivity	7	35	26.3	75.2%
Awareness and management of feelings	12	60	43.1	71.9%
Building positive relationship	10	50	38.2	76.4%
Problem solving & Decision making	7	35	26.0	74.3%

Table 4-4 Scores achieved in five SEL components

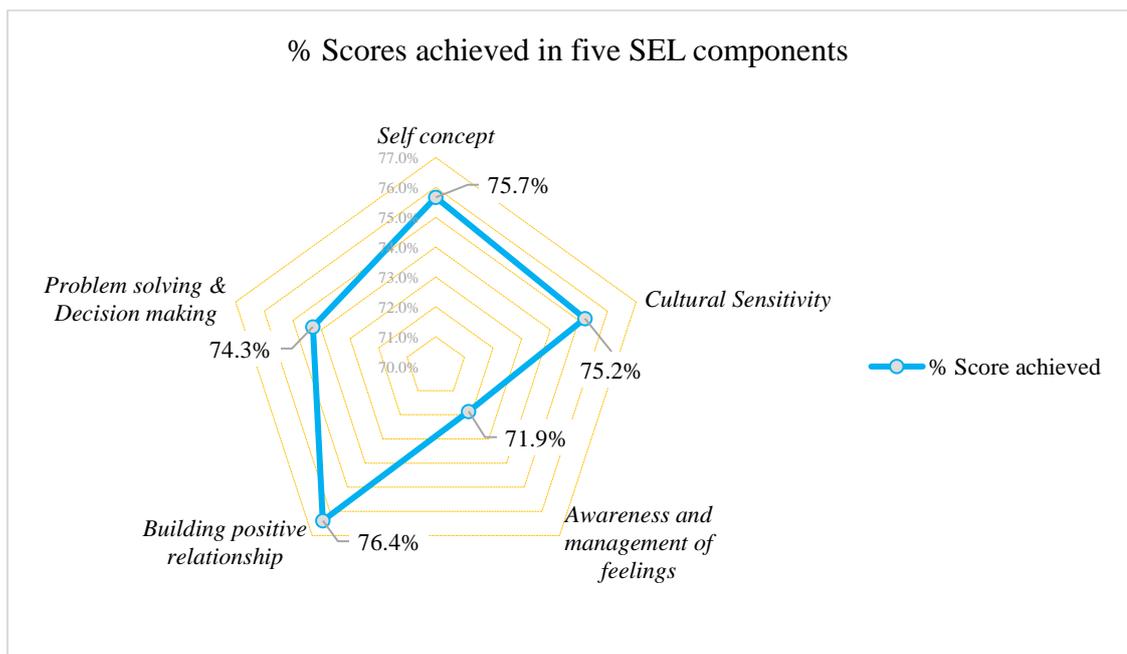


Figure 4-3 % Scores achieved in five SEL components

The above table reveals that amongst the 5 components of SEL, the mean score percentage achieved by the students in Building positive relationship is the highest (76.4%) followed by Self-concept (75.7%) and Cultural Sensitivity (75.2%). The percentage score achieved is lower in other two parameters. The students scored 74.3% in Problem solving & Decision making and the lowest score is recorded for the parameter Awareness and management of feelings (71.9%)

4.4 ANALYSIS OF SEL SCORE WITH RESPECT TO GENDER

After obtaining the SEL score for the sample, the researcher further divided the total sample to male and female and the distribution of total scores according to gender was calculated. The frequency distribution of total scores based on gender is given in Table 4-5
Frequency distribution of total scores based on gender.

Class	Female	Female %	Male	Male %	Total	Total %
135 - 139	0	0.0%	1	1%	1	0.4%
140 - 144	0	0.0%	1	1%	1	0.4%
145 - 149	0	0.0%	4	3%	4	1.7%
150 - 154	8	6.9%	20	16%	28	11.8%
155 - 159	10	8.6%	27	22%	37	15.5%
160 - 164	11	9.5%	10	8%	21	8.8%
165 - 169	16	13.8%	18	15%	34	14.3%
170 - 174	28	24.1%	18	15%	46	19.3%
175 - 179	18	15.5%	11	9%	29	12.2%
180 - 184	16	13.8%	7	6%	23	9.7%
185 - 189	8	6.9%	4	3%	12	5.0%
190 - 194	0	0.0%	1	1%	1	0.4%
195 - 199	1	0.9%	0	0%	1	0.4%
Total	116	100.0%	122	100%	238	100.0%

Table 4-5 Frequency distribution of total scores based on gender

The following bar – diagram Figure 4-4 Frequency distribution of male and female SEL status scores gives a picture of the percentage distribution of the total SEL scores obtained with reference to the gender.

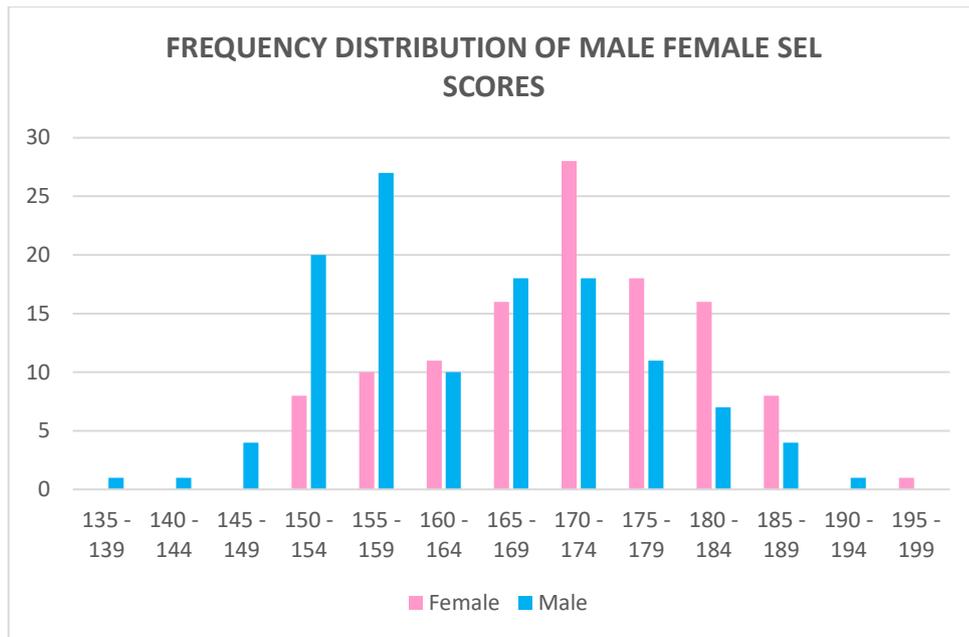


Figure 4-4 Frequency distribution of male and female SEL status scores

The above histogram shows the frequency distribution of scores based on gender falling between groups ranging from 135 to 199.

The result was further statistically analysed to find whether the individual SEL score of male and female follows a normal distribution.

Gender	No. of students	Mean	SD
Female	116	171.28	10.1
Male	122	164.26	11.27

Table 4-6 Total SEL status score: Female vs Male

It is assumed that both the male and female SEL scores follow a normal distribution.

4.4.1 Z Test

As per the objectives laid down by the investigator the frequency distribution of raw scores of the data with the Mean, standard deviation and ‘Z ‘values were calculated with the help of statistical formula.

A z-test is a statistical test used to determine whether two population means are different when the variances are known and the sample size is large. The test statistic is assumed to have a normal distribution, and parameters such as standard deviation should be known for an accurate z - test to be performed.

A z-statistic, or z-score, is a number representing how many standard deviations above or below the mean population, a score derived from a z-test is. Z-tests are closely related to t-tests, but t-tests are best performed when an experiment has a small sample size. Also, t-tests assume the standard deviation is unknown, while z-tests assume it is known. If the standard deviation of the population is unknown, the assumption of the sample variance equalling the population variance is made.

The z-test is also a hypothesis test in which the z-statistic follows a normal distribution. The z-test is best used for greater-than-30 samples because, under the central limit theorem, as the number of samples gets larger, the samples are considered to be approximately normally distributed. When conducting a z-test, the null and alternative hypotheses, alpha and z-score should be stated. Next, the test statistic should be calculated, and the results and conclusion stated.

4.4.1.1 Null and Alternate Hypothesis

The null hypothesis is a statement about the population means, corresponding to the assumption of no effect, and the alternative hypothesis is the complementary hypothesis to the null hypothesis. The main principle of hypothesis testing is that the null hypothesis is rejected if the test statistic obtained is sufficiently unlikely under the assumption that the null hypothesis is true.

P is a statistical measure that helps researchers to determine whether their hypothesis is correct. It helps determine the significance of results. P value is a number between 0 and 1. A very small p-value, which is lesser than the level of significance indicates that you reject the null hypothesis. P value which is greater than the level of significance indicates that we fail to reject the null hypothesis.

The following null and alternative hypotheses need to be tested:

$$H_0: \mu_1 = \mu_2$$

$$H_a: \mu_1 \neq \mu_2$$

Where,

$$\mu_1 = \text{Sample mean of female}$$

$$\mu_2 = \text{Sample mean of male}$$

This corresponds to a two-tailed test, for which a z-test for two population means, with known population standard deviations will be used.

4.4.1.2 Rejection Region

It is considered that the level of significance shall be tested at 0.05.

When the significance level is $\alpha = 0.05$, the critical value for a two-tailed test is $z_c = 1.96$

The rejection region for this two-tailed test is $R = \{z: |z| > 1.96\}$

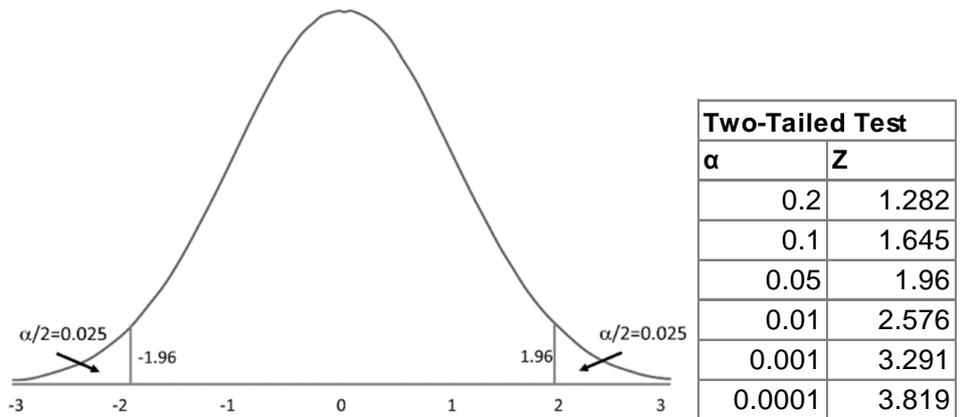


Figure 4-5 Rejection Region

4.4.1.3 Test statistic

Parameter	Details
$\bar{x}_1 = 171.28$	Mean of sample 1 (Female)
$\bar{x}_2 = 164.26$	Mean of sample 2 (Male)
$\sigma_1 = 10.13$	Standard deviations of the population 1 (Female)
$\sigma_2 = 11.27$	Standard deviations of the population 2 (Male)
$n_1 = 116$	Sizes of the Sample 1 (Female)
$n_2 = 122$	Sizes of the Sample 2 (Male)

Table 4-7 Test statistic

The z-statistic is computed as follows:

$$z = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{\sigma_1^2}{n_1} + \frac{\sigma_2^2}{n_2}}}$$

$$z = \frac{171.28 - 164.26}{\sqrt{\frac{10.13^2}{116} + \frac{11.27^2}{122}}}$$

$$z = 5.055$$

4.4.1.4 Decision about the null hypothesis

Since it is observed that $|z| = 5.055 > z_c = 1.96$, it is then concluded that the null hypothesis is rejected.

Using the P-value approach: The p-value is $p=0$, and since $p=0 < 0.05$, it is concluded that the null hypothesis is rejected. The results are presented in Table 4-8

Gender	Sample size	MEAN	SD	z-Score	Remarks
Female	116	36.28	171.28	5.055	Null hypothesis is rejected
Male	122	29.45	164.26		

Table 4-8 Z Test result

From the above statistics, when it is tested at 0.05 level of significance, it is observed that there is a significant difference between the SEL status (population mean) of male and female among the 9th grade CBSE students of Vadodara city.

4.5 ANALYSIS OF SEL COMPONENTS WITH RESPECT TO GENDER

The data is further analysed by dividing the total SEL score achieved by the 238 students to 5 different components of SEL and they are compared with respect to the gender. The mean value of the score achieved by male and female on each of the SEL parameter is shown in the Table 4-9

Gender	Score (Mean Value)				
	Self-Concept	Cultural Sensitivity	Awareness and management of feelings	Building positive relationship	Problem solving & Decision making
Female	34.47	26.93	44.27	39.53	26.09
Male	33.66	25.75	42.02	36.93	25.92

Table 4-9 5 components of SEL with respect to gender

The male and female mean score on each of the individual SEL score is further studied to find any difference in male and female performance in these components.

4.5.1 Self-Concept

Self-concept is described in terms of development and expression of awareness of self in terms of abilities, characteristics and preferences. Self-concept is important because it influences how a person think, feel, and act in everyday life. Understanding the self-concept

is particularly important for the students because self-knowledge helps them to understand why they do the things they do and how their beliefs and behaviours affect themselves, others, and the society - for better and worse.

The Figure 4-6 self-concept: Female vs male shown a statistical comparison between the mean score achieved by male and female adolescents in the parameter ‘self-concept’

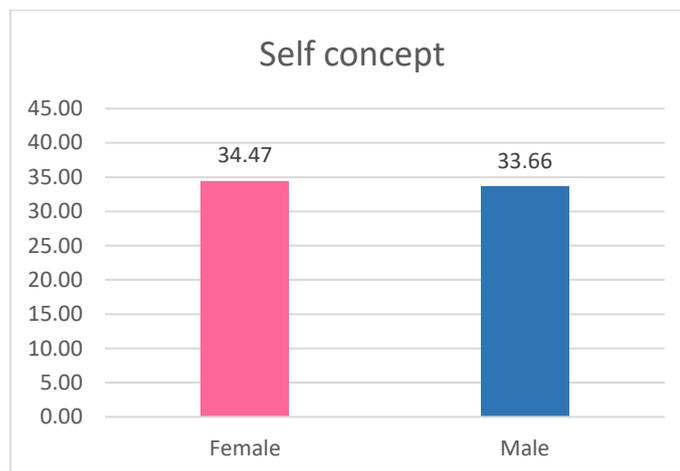


Figure 4-6 self-concept: Female vs male

From the Figure 4-6 self-concept: Female vs male it is very clear that the female stands marginally ahead of male in ‘self-concept’.

It may also be assumed that the ‘superiority’ of the female in this parameter might be contributing marginally to their advancement in SEL score as observed in Table 4-8 Z test result

4.5.2 Cultural Sensitivity

The cultural sensitivity is defined as knowing India and its cultural values in his / her sociocultural context. Having cultural sensitivity is important because it allows students to effectively function in other cultures, allows them to respect and value other cultures, and can reduce cultural barriers. In a modern society, the strong lines of uni-cultural class rooms are slowly diminishing and the students and teachers are largely compelled to get accustomed with the varying cultures.

The Figure 4-7 Cultural Sensitivity Female vs Male shown a statistical comparison between the mean score achieved by male and female adolescents in the parameter ‘cultural sensitivity’

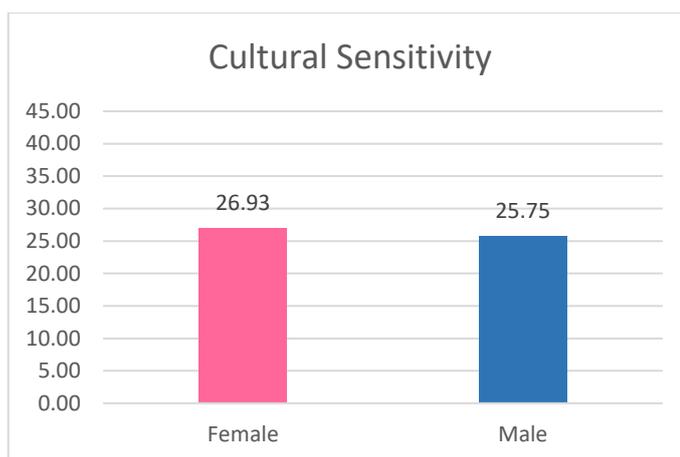


Figure 4-7 Cultural Sensitivity Female vs Male

From the Figure 4-7 Cultural Sensitivity Female vs Male, it is observed that the female stands ahead of male in ‘cultural sensitivity’. It may also be assumed that the ‘superiority’ of the female, might be contributing to their advancement in SEL score as observed in Table 4-8 Z Test result.

4.5.3 Awareness and management of feelings

Awareness and management of feelings means to know, identify, regulate and understand their own feelings as well as that of others. Emotional awareness, or the ability to understand feelings, will help students succeed when communicating with other people. If they are emotionally aware, they will communicate better, notice the emotions of other people, and how the way others are feeling influences the way they communicate.

The Figure 4-8 Awareness and management of feelings: Female Vs Male shown a statistical comparison between the mean score achieved by male and female adolescents in the parameter ‘Awareness and management of feelings’

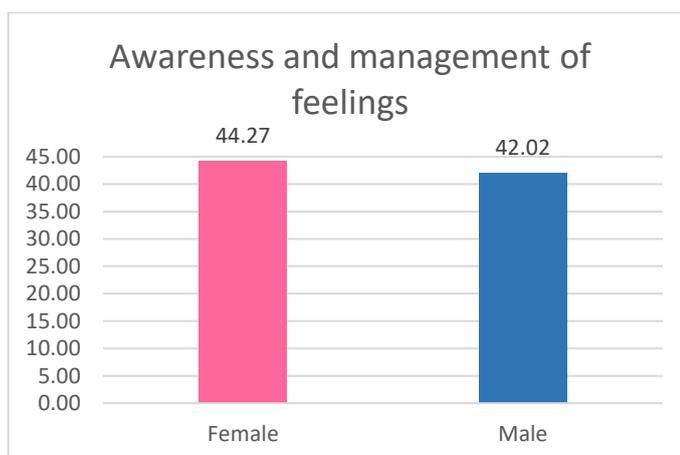


Figure 4-8 Awareness and management of feelings: Female Vs Male

From the Figure 4-8 Awareness and management of feelings: Female Vs Male, it is observed that the mean score of females are close to 2.25% higher than that of males. This is one such parameter where the females stand visibly ahead of male. It may also be assumed that the ‘superiority’ of the female, in this parameter might be contributing heavily to their advancement in SEL score as observed in Table 4-8 Z Test result.

4.5.4 Building positive relationship

It means to strengthen relationship with peers, teachers & family. It also includes development of sharing, cooperation & friendship, affection, care and belongingness. Relationships between students are often a focus of discussion on issues related to bullying & rejection. A positive psychological view on relationship, however, explores the factors that it contributes to inclusion, friendship and support between pupils. Once in place it reduce the incidence of negative social behaviors. Children need to know how to interact well with others, what is involved to establish and maintain friendships, how to operate in a group and what is involved in resolving conflicts.

The Figure 4-9 Building positive relationship Female Vs Male, shown a statistical comparison between the mean score achieved by male and female adolescents in the parameter ‘Building positive relationship’

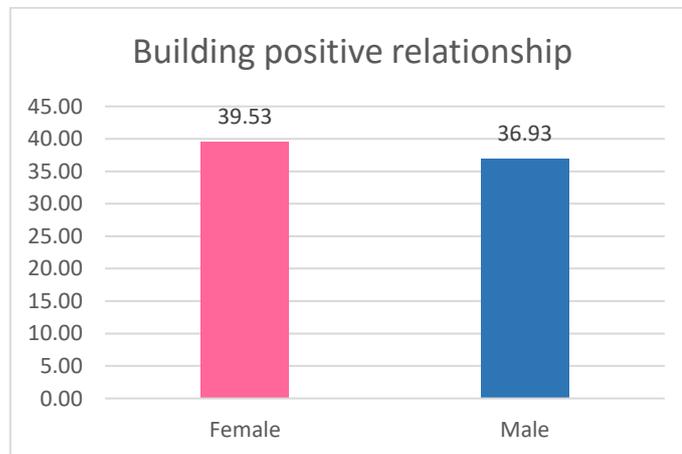


Figure 4-9 Building positive relationship Female Vs Male

From the Figure 4-9 Building positive relationship Female Vs Male, it is observed that the mean score of females are relatively high as compared to males. This, along with ‘Awareness and management of feelings’ is a parameter where the females stand distinctly ahead of male. It may also be assumed that the ‘superiority’ of the female, in this parameter might be contributing heavily to their advancement in SEL score along with Awareness and management of feelings as observed in Table 4-8 Z Test result

4.5.5 Problem solving & Decision making

It means strategies to deal with negative emotions like anger, aggression, fear, selfishness. It also deals with understanding good/bad situation and make ethically right decisions in difficult situations. It helps the students to find out solution to daily life problems and using various strategies to enhance creativity.

The Figure 4-10 Problem solving & Decision making: Female Vs Male, shown a statistical comparison between the mean score achieved by male and female adolescents in the parameter ‘Problem solving & Decision making’

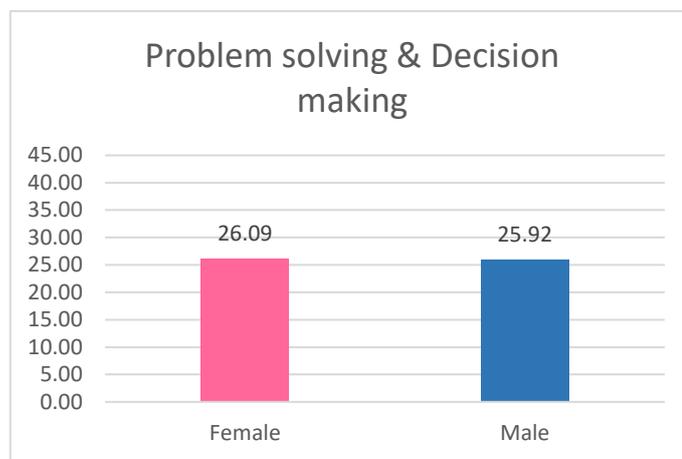


Figure 4-10 Problem solving & Decision making: Female Vs Male

From the Figure 4-10 Problem solving & Decision making: Female Vs Male, it is observed that the mean score obtained by either gender are merely similar. It may also be assumed that the ‘Problem solving & Decision making’ parameter has minimal impact on the ‘superiority’ of the female in the SEL score as observed in Table 4-8

The image Figure 4-11 Components of SEL with respect to gender compares all the 5 parameters in a single graph plot for the convenience of interpretation.

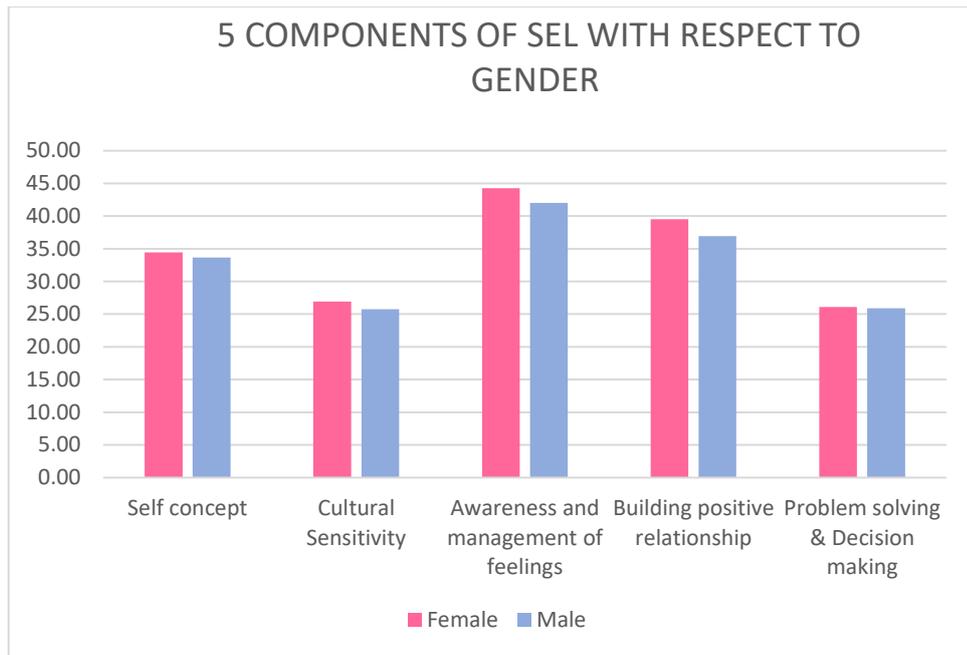


Figure 4-11 Components of SEL with respect to gender

4.6 INTERPRETATION

Table 4-8 Z Test result indicates that the calculated ‘Z’ value of 5.055 is greater than the tabulated ‘Z’ value. The differences in the SEL status of male and female is marked to be ‘significant’. Although there are differences in the ‘mean’ value of the two genders yet there is not much deviation in the standard deviations of the two categories. It may be so because although there were similar viewpoints of students on certain social and emotional aspects yet there were different aspects on which they differed. Socially and emotionally it may be seen that scores obtained by females were greater when compared to the scores obtained by males on all 5 components of SEL. The amount of difference between males and females varies in different SEL components. The difference is observed to be marginal in ‘Problem solving and decision making’ parameter but the score achieved by the females are explicitly higher than the male in parameters such as ‘Awareness and management of feelings’ and ‘Building positive relationship’.

Therefore, based on the scores obtained by the genders, it is observed that the female has a higher Social and emotional learning status as compared to the male.

CHAPTER 5

FINDINGS AND DISCUSSIONS

5.1 INTRODUCTION

In the previous chapters, the investigator studied the topic by reviewing related literatures, defined the methodology of the study, collected the relevant data and did the statistical treatment of the data to derive certain reliable interpretations and conclusions.

In this chapter, the major findings are discussed with reference to the previous chapters.

5.2 FINDINGS OF THE STUDY

The findings are presented under four sections:

- i. Findings on status of SEL
- ii. Findings on status of SEL with reference to its five components
- iii. Findings on status of SEL with reference to Gender.
- iv. Findings on the comparison of 5 components of SEL status with reference to Gender

5.2.1 Findings on status of SEL

A total of 238 students from the 9th grade CBSE schools were taken as the sample and it is found that most of the students (84%) have ‘average’ level of SEL status. The 16% of the sample are having ‘good’ level of SEL status. There is no representation in very poor and poor categories.

5.2.2 Findings on status of SEL with reference to its five components

The investigator measured the SEL status with five components and found out the mean score achieved by the total sample as, Self-concept 34.1(75.7%), Cultural Sensitivity 26.3 (75.2%), Awareness and management of feelings 43.1(79.1%), Building positive relationship 38.2(76.4%) and Problem solving & Decision making 26.0(74.3%). The mean score percentage achieved by the students in Building positive relationship is the highest followed by Self-concept and Cultural Sensitivity. The lowest score achieved in Awareness & management of feelings and Problem solving & Decision making worth special notice.

5.2.3 Findings on status of SEL with reference to Gender

From the statistical analysis using z test for two sample sets (female and male) the investigator analyzed whether there is any significant difference between the SEL status of male and female. The result z score obtained is 5.055 (Table 4-8 Z Test result) when it is tested at 0.05 level of significance, it is found that there is a significant difference between the SEL status (population mean) of male and female among the 9th grade CBSE students of Vadodara city. The female has a higher status of SEL as compared to the male.

5.2.4 Findings on the components of SEL with reference to Gender

The investigator made the findings based on status of SEL with 5 components:

- Self-concept
- Cultural Sensitivity
- Awareness and management of feelings
- Building positive relationship
- Problem solving & Decision making

5.2.4.1 Status of SEL with regard to the Self-concept

Self-concept is described in terms of development and expression of awareness of self in terms of one's abilities, characteristics, nature and preferences. Understanding the self-concept is very important for the students because self-knowledge helps them to understand why they do the things they do and how their beliefs and behaviours affect themselves, others, and the society. It can be in a positive or negative way.

The mean score achieved by female in the 'self-concept' category is 34.47 and that of male is 33.66. From this result, it is very clear that the female stands marginally ahead of male in 'self-concept'.

5.2.4.2 Status of SEL with regard to Cultural Sensitivity

Cultural sensitivity is the awareness of cultural differences and similarities exists between the people. With the increasing multicultural classroom environment, a child should be prepared to embrace the differences in multiple dimensions such as language, ethnicity, nationality etc.

The mean score achieved by female in the 'cultural sensitivity' category is 26.93 and that of male is 25.75. The study shows female have better "cultural sensitivity" than male.

5.2.4.3 Status of SEL with regard to Awareness & management of feelings

Awareness & management of feelings is the ability of an individual to understand, use, and manage own emotions in positive ways to relieve stress, communicate effectively, empathize with others and overcome challenges. This ability is very important for a student as it helps to maintain a better physical and mental health which in turn reflects in their classroom performance.

The mean score achieved by female in the 'Awareness & management of feelings' category is 44.27 and that of male is 42.02. The investigator has found that females stand ahead of male in 'Awareness & management of feelings'

5.2.4.4 Status of SEL with regard to Building positive relationship

Building positive relationship enables the students to collaborate and work together in classroom and outside. It helps to build trust and develop mutual respect.

The mean score achieved by female in the ‘building positive relationship’ category is 39.53 and that of male is 36.93. The researcher found out that female stand ahead of male in building Positive relationship.

5.2.4.5 Status of SEL with regard to Problem solving and decision making

The Problem solving and decision making is one of the very critical skill that help an individual to dive through difficult times and move ahead. This skill helps to develop leadership qualities in an individual.

The mean score achieved by female in the ‘Problem solving and decision making’ category is 26.09 and that of male is 25.92. The investigator found that the skill of male and female do not differ much in this parameter.

5.3 DISCUSSION

The study indicates that the adolescents have an ‘average’ or above level of SEL status in general and there is no representation on ‘poor’ and ‘very poor’ category. Considering the importance of SEL in academic and lifelong overall achievement of an individual, the findings leave a big scope for improvement through inclusion of SEL intervention programmes in the curriculum. Adolescence is the period where the students are facing many socio- psychological challenges like depression, low self-esteem, bullying, aggression, criminal tendency etc. There are evidences to believe that these tendencies are increasing in the youngsters in the recent time. For example, a class 9 boy was found brutally stabbed to death by a senior in Vadodara School. (Times of India, June 23, 2018). Around 42% of students of class 4 to 8 and 36% of class 9 to 12 are subjected to harassment by peer in the school. (A survey by Times of India, July 28, 2017). On an average of 7500 cases of suicide has been reported related to exam stress and failure in the year 2014-16 (NCRB, 2015) these examples mandate the need for channelizing the youth power to a positive direction – this is where SEL can contribute in many ways.

The science today has a better understanding of the behavior of adolescent brain. As per the research on physiology of brain by Patricia Wolfe (2001), brain undergoes two main periods of increased production of gray-matter: the first begins during fetal development and lasts until around 18 months of age and the second occurs during early adolescence. The increased production of grey matter helps in development of better reasoning ability, problem

solving, planning and executing behavior, language, motor function, social mirroring, judgment, impulse control etc. So, adolescence is the right period to implement SEL programmes on those who missed it in the early childhood. We need to revisit the need gap of this age group in the wake of this revised understanding.

The present study is conducted on CBSE students among urban population. We need to factor in this point because, in general, these students are considered as the 'privileged' one as compared to the mass Indian educational sector. The research can be further extended to the rural and metropolitan population and to different age groups to make some conclusive guidelines for implementing the SEL programs in India.

A special notice is to be given to the findings that when the total SEL score achieved is analyzed with reference to its 5 components, the students scored least in 'Awareness and management of feelings' and 'Problem solving & Decision making'. On the component Awareness and management of feelings on which minimum percentage of score is achieved (71.9%) the female mean score is comparatively high (44.27) as compared to the male (42.02). It can be argued that male status brings down the overall score here. The lower score obtained by male students on the 'Awareness and management of feelings' indicates the reason behind behaviors like aggression, bullying, anxiety etc. On a positive note, this parameter is something which can be addressed and improved through school counselling session. Even during this session, more attention can be given to the male than female. On contrary to the above, for Problem solving & Decision-making component where the average percentage score is second to the last (74.3%) both female (26.09) and male (25.92) scored fairly equal. A gender based special treatment is not suggested in this case.

The study also shows the upper hand of female over male in SEL status in the population. This again get reflected in the study of 5 components of SEL. The reason for this difference might be related to the psychological and physiological development of male and female of this age group. Sociological influence too plays a role in this differentiation.

a) Psychological reasons

On psychological front, behavioral studies have shown that, at a population level, women perform better on tests of social cognition and empathy than men. [Eisenberg, Lennon (1983)] These two factors give an upper hand for female over male to maintain better emotional stability. According to a research conducted by Brody (2016) males more frequently express negative emotions (e.g., anger, aggression, and frustration) as compared to

female. When it comes to expressing emotions, males, in general have a greater fear of expressing it and tend to show less emotions than females.

The above research findings clearly compliment the findings of present study by explaining why female have a better Social and emotional learning status compared to male of the same age group.

b) Physiological reasons

The physiology plays a role in determining the higher SEL status in female. The neurological studies of cerebral cortex found that female has larger activity in the prefrontal cortex (PFC) - an essential core of the social brain connected to perception and understanding the social behavior of others such as intentions, emotions, and expectations. [Collins, Koechlin (2012)] The amygdale, a key factor in developing emotional stability, is the emotional nerve center of the brain that responds on stimulus. The amygdale's function is often referred to as "*emotional hijacking*". When emotional hijacking occurs, the prefrontal cortex (PFC) acts as a manager of emotions by regulating reactions before acting on them. So, the better development of prefrontal cortex area of brain in female helps them to have a better control over emotions.

c) Sociological reasons

Another dimension of the superiority of female might be coming from the sociological front. The typical patriarchal system prevailing in Indian society encourages female to compromise and be adaptive on their requirements which develops an accommodative nature. This in turn might be reflected in female as a strength in SEL status.

The above three factors are addressed in the SEL intervention programs. Various physiological and psychological activities like *song about feelings, coping with worry and fear, setting goals and making plans, think before you speak work sheets, hurtful words lessons for young kids, emotional check in worksheet, understanding personal space lessons, lessons about gratitude and happiness* are well encapsulated in SEL programs. The SEL program always requires the intervention of the parents, schools, community and other stake holders. Hence the sociological need of a student can be generally well identified and addressed in SEL programs.

CHAPTER 6

SUGGESTIONS AND SUMMARY

6.1 CHAPTER PREVIEW

An appropriate conclusion should be drawn from a study to make it complete and successful. The chapter VI summarizes the study conducted on the basis of the hypotheses and the objectives drawn in order to prove it. The present study is “*A study on status of social and emotional learning and its relationship with gender among the adolescents of Vadodara city.*” This chapter describe the details of the study conducted including introduction, review of related literature, objectives of the study, and a brief summary of methodology adopted for the study along with the findings, conclusions derived from the study and scope for further research.

6.2 INTRODUCTION

Intelligence at once was considered as a single entity and children were a blank slate that could be trained to learn anything. Gardner (1943) comes up with Multiple Intelligence theory. He stated that intelligence is a sum of multiple intelligences. He listed seven types of intelligences viz, Linguistic, Logical- Mathematical, Musical, Kinesthetic, Spatial, Interpersonal and Intrapersonal Intelligence. These are valued in the school, home and society they live in. Mayer and Salovey (1997) formulated the concept of emotional Intelligence. Emotional Intelligence (EI) was defined as “the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions.”

Daniel Goleman (1995), reported a mix model according to which Emotional Intelligence (EI) is an array of various competencies and skills that drive leadership performance. The five main EI constructs according to him are self-awareness, self-regulation, social skill, empathy and motivation. Not soon enough the Goleman constructs were embraced in the form of programs in SEL. “EI has provided a theoretical platform for SEL. The credit goes to Goleman for introducing SEL, that today many schools are getting positive outcomes and benefits from SEL programs”. (Goetz, 2009). The SEL programs can have greater influence on addressing the adolescent issues such as the behavioral problems and decision-making capacity.

Adolescence is the period where an individual undergoes physiological and psychological changes. Adolescence age begins with puberty and ends with being independent as an adult. It is usually associated with the teenage years, but its physical, psychological or cultural expressions may begin earlier and end later. The stage at which an individual makes some of their earlier decisions with respect to their future career (both academic and non-academic) is the period of adolescence. It is a phase of tremendous

learning, exploration, and opportunity. It is a dynamic maturational period during which young lives can pivot rapidly—in both negative and positive directions. A guided progression in emotional management and character building can be achieved through some systematic processes/programs.

Social and emotional learning (SEL) is the process through which an individual acquires and effectively apply the knowledge, attitudes & skills necessary to understand and manage emotions. The SEL, in addition to help a child to grow as a ‘better’ individual, is expected to have an impact on the education and learning process. The improved mental stability, strength and reasoning skill helps them to rationally handle the academic pressure, success and failures & various other influencing factors they go through. Scientific progress in understanding the status of social and emotional learning in adolescent development provides actionable insights into windows of opportunity during which policies can have a positive impact on developmental trajectories relating to health, education, social and economic success.

Adolescents spend a large proportion of their day in school or pursuing school-related activities. While the primary purpose of school is the academic development of students, its effects on adolescents are far broader, also encompassing their physical and mental health, safety, civic engagement, and social development. Further, its effects on all these outcomes are produced through a variety of activities including formal pedagogy, after-school programs, caretaking activities (e.g., feeding, providing a safe environment) as well as the informal social environment created by students and staff on a daily basis. The social and emotional learning connects the dots between the academic development and progress of an individual being ‘worthy’ of surviving in future.

The various SEL programmes running around the globe such as Promoting Alternative Thinking Strategies (PATHS), The Responsive Classroom (RC) Approach, The RULER approach etc. have scientifically proven the positive effect of SEL on the development of the students. But well-researched and articulated standards for social and emotional learning of Indian school children are not formulated yet. Despite the high importance accorded to social and emotional education in NCERT’s National Curriculum Framework 2005, this domain has been largely ignored and side-lined by schools.

6.3 STATEMENT OF THE PROBLEM

A study on status of Social and Emotional Learning and its relationship with gender among the adolescents of Vadodara city.

6.4 REVIEW OF RELATED LITERATURE

An investigation of related literature paved the way for the investigator to get acquainted with the studies that were done in the related field. The investigator has studied around 20 research works conducted around the globe on various aspects of SEL and its relationship with Emotional Intelligence, Academic achievement, Gender, Social and economic status etc. Thus, the investigator had a good opportunity to trespass much of areas related to the present study and identify the existing research gap which reinstated the need for the present study.

6.5 IMPLICATION OF REVIEWED LITERATURES ON THE STUDY

The investigator has come across several studies that are related to SEL showing its significant relation with improved social and emotional skills, attitudes, behavior and academic performance. With the researches available, there are ample evidence to support the inclusion of social and emotional learning in classrooms. The Economic value of Social and Emotional Learning were taken up by some of the researchers which shows the benefits of cost analysis in SEL investment. On an average, for every \$1 invested in SEL program, there is a return of \$11. International reports on the running SEL programs strongly supports the need of its implementation in global level. Indian researchers also come across with the studies showing the relation between EI (which is highly related to SEL) and academic achievements. A significant relationship between Social emotional level and gender was also observed by some of the studies. Studies after implementation of SEL Program revealed that the intervention on SEL led to the enhancement in self-concept, understanding and managing emotions, establish relationship with people, resolving conflicts and making right decisions, enhances aesthetics, cultural sensitivity and creativity among school going students.

As compared to the studies world-wide, the researches in India on SEL are limited in number. Thus, the investigator came up with the present study.

6.6 OBJECTIVES OF THE STUDY

- a) To study the status of SEL among the adolescents
- b) To study the status of SEL among the adolescents with reference to five components of SEL:
 - i. Self-concept
 - ii. Cultural sensitivity
 - iii. Awareness and management of feelings
 - iv. Building positive relationships
 - v. Problem solving and decision making

- c) To study the relationship between status of SEL and gender.
- d) To compare the status of five components of SEL with reference to Gender

6.7 DESIGN AND METHODOLOGY IN BRIEF

Survey method was employed for the study. Out of 34 CBSE schools in the Vadodara city, 6 schools were selected through simple random sampling method to conduct the survey. A single division of school consists of average 40 students and hence a total sample size of 238 students was used to conduct the study.

6.7.1 Tools and techniques for data collection

A questionnaire was prepared and distributed among the students for the purpose of data collection. The questionnaire was prepared by referring the questionnaire proposed and used by Rajawat, D. (2018) and Goleman, D. (1998). It comprises of 5 main components of SEL, namely,

- Self-concept
- Cultural Sensitivity
- Awareness and management of feelings
- Building positive relationship
- Problem solving & Decision making

A rating scale was prepared with 5 distinctive options. The students were asked to tick (✓) the most appropriate option that reflects them rather than what they want to be.

6.7.2 Statistical treatment of data

The statistical analysis of the data was undertaken using procedures appropriate for the study. The data obtained were subjected to statistical computation with a view to derive certain conclusions regarding the Social and emotional learning status of the 9th grade CBSE students. The obtained scores of the pupils were analyzed by computing the Mean and Standard deviation for the entire sample. The significant differences in SEL score achieved by male and female were also found out by employing 'z' test.

6.8 RESULTS AND FINDINGS OF THE STUDY

- Based on the data analysis, it is found that most of the students (84%) have an average level of SEL. The 16% of the sample are having a good level of SEL. There is no representation in very poor and poor categories.

- From the statistical analysis using z test for two sample sets (female and male) it is found that there is a significant difference between the SEL status of female and male. The female has a higher status of SEL as compared to the male.
- When the SEL status score achieved by the total samples were analyzed with the 5 components of SEL, it is observed that the mean score percentage achieved by the students in Building positive relationship is the highest (76.4%) followed by Self-concept (75.7%) and Cultural Sensitivity (75.2%). The percentage score achieved is the lower in other two parameters. The students scored 74.3% in Problem solving & Decision making and the lowest score is recorded for the parameter Awareness and management of feelings (71.9%)
- When the 5 components of SEL are individually analyzed with reference to the gender, it is observed that the female scores ahead of the male in all of them which compliments to the previous observation. The degree of difference however differs from component to component where there is only marginal difference observed in Problem solving & Decision making but it is very explicit in components such as Awareness and management of feelings and Building positive relationship.

6.9 DISCUSSIONS

The study indicates that the adolescents have an ‘average’ or above level of SEL status in general and there is no representation on ‘poor’ and ‘very poor’ category. Considering the importance of SEL in academic and lifelong overall achievement of an individual, the findings leave a big scope for improvement through inclusion of SEL intervention programmes in the curriculum. Considering the socio psychological challenges faced by the adolescents - like depression, low self-esteem, bullying, aggression, criminal tendency etc. the SEL intervention programs can channelize the youth power to a positive direction.

The science today has a better understanding of the behavior of adolescent brain. As per the research on physiology of brain by Patricia Wolfe (2001), brain undergoes two main periods of increased production of gray-matter: the first begins during fetal development and lasts until around 18 months of age and the second occurs during early adolescence. The increased production of grey matter helps in development of better reasoning ability, problem solving, planning and executing behavior, language, motor function, social mirroring, judgment, impulse control etc. So, adolescence is the right period to implement SEL

programmes on those who missed it in the early childhood. We need to revisit the need gap of this age group in the wake of this revised understanding.

The present study is conducted on CBSE students among urban population. We need to factor in this point because, in general, these students are considered as the 'privileged' one as compared to the mass Indian educational sector. The research can be further extended to the rural and metropolitan population and to different age groups to make some conclusive guidelines for implementing the SEL programs in India.

A special notice is to be given to the findings that when the total SEL score achieved is analyzed with reference to its 5 components, the students scored least in Awareness and management of feelings and Problem solving & Decision making. On the component Awareness and management of feelings on which minimum percentage of score is achieved (71.9%) the female mean score is comparatively high (44.27) as compared to the male (42.02) It can be argued that male status brings down the overall score here. The lower score obtained by male students on the 'Awareness and management of feelings' indicates the reason behind behaviors like aggression, bullying, anxiety etc. On a positive note, this parameter is something which can be addressed and improved through school counselling session. Even during this session, more attention can be given to the male than female. On contrary to the above, for Problem solving & Decision-making component where the average percentage score is second to the last (74.3%) both female (26.09) and male (25.92) scored fairly equal. A gender based special treatment is not suggested in this case.

The study clearly shows the upper hand of female over male in SEL status in the population. This again get reflected in the study of 5 components of SEL. The reason for this difference might be laying in psychological and physiological development of male and female of this age group.

On psychological front, behavioral studies have shown that, at a population level, women perform better on tests of social cognition and empathy than men. [Eisenberg, Lennon (1983)]

The physiology also plays a role in determining the higher SEL status in female. The neurological studies of cerebral cortex found that female has larger activity in the right temporal cortex - an essential core of the social brain connected to perception and understanding the social behavior of others such as intentions, emotions, and expectations. [Collins, Koechlin (2012)]

Another dimension of the superiority of female might be coming from the sociological front. The typical patriarchal system prevailing in Indian society encourages

female to compromise and be adaptive on their requirements which develops an accommodative nature. This in turn might be reflected in female as a strength in SEL status.

The above three factors are addressed in the SEL intervention programs. The physiological and psychological activities like *song about feelings, coping with worry and fear, setting goals and making plans, think before you speak work sheets, hurtful words lessons for young kids, emotional check in worksheet, understanding personal space lessons, lessons about gratitude and happiness* are well encapsulated in SEL programs. The SEL program always requires the intervention of the parents, schools, community and other stake holders. Hence the sociological need of a student are generally well identified and addressed in SEL programs.

6.10 EDUCATIONAL IMPLICATIONS OF THE STUDY

A higher SEL status can have a positive impact on school climate and promote a host of academic, social, and emotional benefits for students. Integrating social-emotional learning programs into the classroom and curriculum can help to further improve the current scenario and is good for both learners and the teachers who work with them.

6.10.1 SEL implementation - Benefits for students

Finding a way to reach out the students who are struggling with various socio emotional challenges can be difficult. But social and emotional learning programs can open up some doors to identify them upfront and predict the nature of their challenges. Copious research has shown that the impact of social and emotional learning (SEL) runs deep. SEL programs are shown to increase academic achievement and positive social interactions, and decrease negative outcomes later in life. SEL helps individuals to develop competencies that last for a lifetime.

Various aspects of SEL that influences a student's life are:

- **Academic achievement:** Implementation of SEL programmes will results in improved classroom behavior, an increased ability to manage stress and depression. It helps to develop better attitudes about themselves, others, and the school. All these aspects would in turn will reflect in their academic achievement.
- **Positive life outcomes:** Early interventions of SEL show outcomes far into adulthood, reducing the life risks. The adult develops better outlook towards life. They show less tendency in involving criminal activities, substance usage etc.

- **Reduced aggression:** SEL programmes can have a noticeable and positive impact on reducing reactive behavior and aggression among students. The positive classroom environment would let the teachers and students to focus more on the learning.
- **Reduced emotional distress:** Social-emotional learning teaches young students how to cope with everyday disappointments as well as the deep cuts of trauma. It helps to develop lifelong coping skills against depression, anxiety, stress, and social withdrawal.

SEL programs can have short term and long-term benefits. The short-term outcomes include developing positive attitude towards self and others. The long-term outcomes will be reflected in better academic performance and mental health.

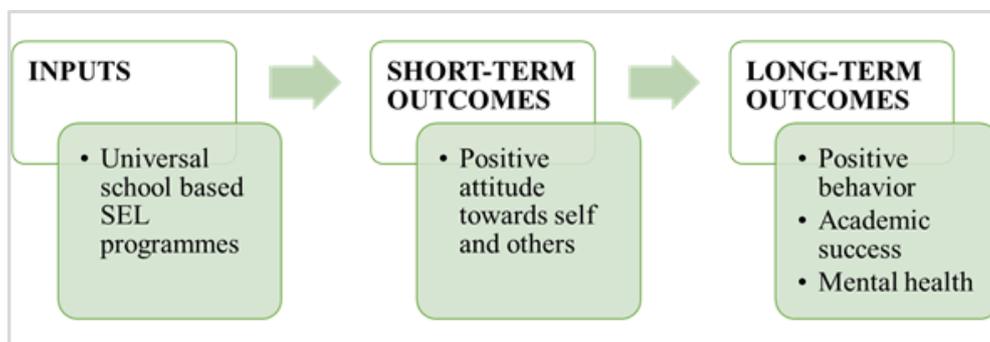


Figure 6-1 Benefits of SEL programmes

6.10.2 SEL implementation - Benefits for teachers

There is a saying that the best teachers are best learners first. They should be a role model with explicit SEL skills which they want to reflect in their students. Social and emotional learning is most productive when teachers are invested in SEL program. With SEL, students experience less anxiety, hyperactivity, aggression and they're generally happier and more attentive. The impact on teachers is no less profound. Teachers feels that SEL contributes to their own feelings of happiness, and helps them to be more organized and responsive. It helps to change a teachers' views of their profession.

6.11 RECCOMENDATIONS TO POLICY MAKERS

Crippling with limited resources, the Indian education has always been following a top down approach. We had great visionaries at the helm but lagged in implementation of many of the suggestions. The SEL is comparatively a new topic in the air and there has been only limited reference to it in our policies.

However, a coordinated SEL policy framework could greatly benefit both individuals and society. Though there are many ways to meet a policy goal, such a framework should achieve five things:

- i. Introduction of SEL coursework in teacher training programs
- ii. Set clear standards for implementation and measurement of SEL programmes in schools
- iii. Rigorous adoption of evidence-based SEL programs that are running around the globe. Institutional level, intra- national collaboration and co-investment might help to boost the progress here.
- iv. Sustained investment in SEL research and developmental programmes
- v. Organizations and Nodal agencies such as NCERT, SCERT or NCTE could take a lead in conducting researches on impact and influence of SEL in schools.

6.12 SUGGESTIONS FOR FURTHER RESEARCHES

As stated before, even after there has been concrete evidences pertaining to the benefits of SEL, there has been only limited attention given to it in India so far. A few of the potential avenues for further research in this field could be:

- A national level meta-analysis on status of SEL.
- A study on relationship between SEL and academic achievement.
- A study on challenges and limitation on implementation of SEL programs in India.
- A comparative study between SEL status of rural and urban students of India.
- A research on SEL status of students and its impact on career achievement in India
- A study on attitude and aptitude of teachers about SEL intervention programs.
- A study on the influence of school climate on SEL status.

6.13 CONCLUSION

An analysis of Social and emotional learning status and its components could reveal some vital information on the psycho-sociological status of the students. The study shows that most of the adolescent students in Vadodara city possesses an ‘average’ SEL score. This indicates the need of introducing SEL intervention programs in school curriculum.

Adolescents psycho-sociological challenges can be identified and well addressed through these programmes.

The inclusion of SEL programs will leave positive impact on different areas of a student's life such as academic performance, better control of emotions, improved classroom environments etc. So, more focus should be given by the policy makers and government for integrating SEL programmes as part of regular curriculum.

The study shows that the female students have a better SEL status than male. This finding can be supported by the psychological, physiological and sociological status of female students at this age group. But, probably, an important question to be answered is 'even after standing ahead of male in social and emotional learning status, why do women fail to excel in career and social status in general. It looks like their special skills are not encashed enough by the economy and society at large. The SEL intervention programs can help to address this concern too as it is a collaboration of students, schools, parents and community. It creates a platform to engineer social changes along with addressing individual developmental needs.

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ANNEXURE

ANNEXURE 1: COMPONENTS OF TOOL

The tool has five different components corresponding to the five components of the SEL selected for the study.

For each component, appropriate number of statements are selected which are a mixture of positive and negative statements.

- i. **Self-concept:** Self-concept will be described in terms of development and expression of awareness of self in terms of abilities, characteristics and preferences.

Statements corresponding to self-concept:

S.No.	Statement	Type (Positive/negative)
1	I always motivate myself to do difficult task.	Positive
2	I plan my task & make sure that I spend enough time for it as planned.	Positive
3	I am confident that I will achieve the goals that I set.	Positive
4	I can 'reframe' bad situations quickly.	Positive
5	I can let anger 'go' quickly so that it no longer affects me.	Positive
6	I always compliment others' accomplishments	Positive
7	When I get stuck while learning something new, I often try a different strategy	Positive
8	I usually realise when I am stressed.	Positive
9	I know what I want to become when I grow up.	Positive

- ii. **Cultural sensitivity:** The cultural sensitivity will be defined as knowledge about India and its cultural values in his / her sociocultural context.

Statements corresponding to Cultural sensitivity:

S.No.	Statement	Type (Positive/negative)
1	I enjoy being with a variety of friends of different back grounds.	Positive
2	I respect other people's beliefs.	Positive
3	I like to celebrate festivals irrespective of the religion.	Positive
4	If given a chance I prefer to stay at home on August 15th rather than going to school for celebrations.	Negative
5	I enjoy reading books related to multi culturalism in India.	Positive
6	I prefer to obey elder people's advice.	Positive
7	If foreigners want to live in my country they should accept our culture.	Negative

- iii. **Awareness and management of feelings:** Awareness and management of feelings means to know, identify, regulate and understand one's own feelings as well as that of others.

Statements corresponding to Awareness and management of feelings:

S.No.	Statement	Type (Positive/negative)
1	I realise when someone annoys me.	Positive
2	I can control my emotions when I need to.	Positive
3	Sometimes I lose temper and don't realise it.	Negative
4	I can sense when I am being unreasonable.	Positive
5	I always motivate myself even when I feel low.	Positive
6	I never interrupt other people's conversations.	Positive
7	I can express my affection and feeling through words with others.	Positive
8	I often listen to other people's point of view.	Positive
9	I never allow others to interrupt me while talking.	Negative
10	I hardly try to understand teachers' point of view in the classroom.	Negative
11	I enjoy bullying others.	Negative
12	I think I might start smoking as a stress buster when I grow up.	Negative

- iv. **Building positive relationships:** It means to strengthen relationship with peers, teachers & family. It also includes development of sharing, cooperation & friendship, affection, care and belongingness.

Statements corresponding to Building positive relationships:

S.No.	Statement	Type (Positive/negative)
1	I generally build strong relationship with my schoolmates.	Positive
2	I am excellent at empathising with someone else's problem.	Positive
3	I never share my emotions & problems with my parents all the time.	Negative
4	I have friends outside my school/ neighbourhood.	Positive
5	I often invite my local friends to home.	Positive
6	I generally build strong relationships with those I work with.	Positive
7	I often get involved in conflicts while working on group projects	Negative
8	I help others when I get a chance.	Positive
9	I am often the captain of the team in games.	Positive
10	Friends and family are most important part of my life.	Positive

- v. **Problem solving, decision making:** It means strategies to deal with negative emotions like anger, aggression, fear, selfishness. It also deals with understanding good/bad situation and make ethically right decisions in difficult situations. Finding out solution to daily problems and using various strategies to enhance creativity is also a part of it.

Statements corresponding to Problem solving, decision making:

S.No.	Statement	Type (Positive/negative)
1	I always meet targets.	Positive
2	When I set goals, I think about the barriers that might get along with it.	Positive
3	I often seek advice in decision making.	Positive
4	I take initiative to solve issues among my friends.	Positive
5	I don't like to be the class monitor as the monitor is accountable to many things.	Negative
6	I often use ideas/ concepts collected from class in daily life.	Positive
7	I take the lead whenever there is an opportunity to do so.	Positive

The questionnaire was validated through experts from The Maharaja Sayajirao University of Baroda who belongs to the relevant field.

ANNEXURE 2: QUESTIONNAIRE

Dear students,

I, Swetha Mohan Das, an M.Ed student from the Department of Education, Faculty of education and Psychology, The Maharaja Sayajirao university of Baroda is conducting a survey to find the status of Social and emotional learning status of the 9th grade students.

Instructions for the respondent:

The survey includes 45 statements, with 5 different options. Please read each statement and decide how strongly each statement applies to you. Make sure that the answer *reflects you* than *what you want to be*.

Your participation in this survey is voluntary. The survey answers will be used for the research purpose only, therefore the response will remain anonymous.

Respondent Information:

Please provide the information requested below:

Name of the school: _____

Roll Number: _____

Gender (Male/Female): _____

HOW MUCH DOES EACH STATEMENT APPLIES TO YOU?

#	<i>Read each statement and decide how strongly the statement applies to you. Make sure that the answer reflects you rather than what you want to be.</i>	<i>Tick (✓) which option applies to you</i>				
		<i>Strongly disagree</i>	<i>Disagree</i>	<i>Undecided</i>	<i>Agree</i>	<i>Strongly agree</i>
1	I always motivate myself to do difficult task.					
2	I plan my task & make sure that I spend enough time for it as planned.					
3	I am confident that I will achieve the goals that I set.					
4	I can 'reframe' bad situations quickly.					
5	I can let anger 'go' quickly so that it no longer affects me.					
6	I always compliment others' accomplishments					
7	When I get stuck while learning something new, I often try a different strategy					
8	I usually realise when I am stressed.					
9	I know what I want to become when I grow up.					
10	I enjoy being with a variety of friends of different back grounds.					
11	I respect other people's beliefs.					
12	I like to celebrate festivals irrespective of the religion.					
13	If given a chance I prefer to stay at home on August 15th rather than going to school for celebrations.					
14	I enjoy reading books related to multi culturalism in India.					
15	I prefer to obey elder people's advice.					
16	If foreigners want to live in my country they should accept our culture.					
17	I realise when someone annoys me.					
18	I can control my emotions when I need to.					
19	Sometimes I lose temper and don't realise it.					
20	I can sense when I am being unreasonable.					
21	I always motivate myself even when I feel low.					
22	I never interrupt other people's conversations.					
23	I can express my affection and feeling through words with others.					

#	Read each statement and decide how strongly the statement applies to you. Make sure that the answer reflects you rather than what you want to be.	Tick (√) which option applies to you				
		Strongly disagree	Disagree	Undecided	Agree	Strongly agree
24	I often listen to other people's point of view.					
25	I never allow others to interrupt me while talking.					
26	I hardly try to understand teachers' point of view in the classroom.					
27	I enjoy bullying others.					
28	I think I might start smoking as a stress buster when I grow up.					
29	I generally build strong relationship with my schoolmates.					
30	I am excellent at empathising with someone else's problem.					
31	I never share my emotions & problems with my parents all the time.					
32	I have friends outside my school/ neighbourhood.					
33	I often invite my local friends to home.					
34	I generally build strong relationships with those I work with.					
35	I often get involved in conflicts while working on group projects					
36	I help others when I get a chance.					
37	I am often the captain of the team in games.					
38	Friends and family are most important part of my life.					
39	I always meet targets.					
40	When I set goals, I think about the barriers that might get along with it.					
41	I often seek advice in decision making.					
42	I take initiative to solve issues among my friends.					
43	I don't like to be the class monitor as the monitor is accountable to many things.					
44	I often use ideas/ concepts collected from class in daily life.					
45	I take the lead whenever there is an opportunity to do so.					

ANNEXURE 3: CONSENT LETTER

From,
Swetha Mohan Das
M.Ed II
Department of Education and Psychology
The Maharaja Sayajirao University of Baroda
Vadodara.

To,
The Principal,

Dear Sir/ Ma'am,

I, Swetha Mohan Das, a Master of Education degree student from the Faculty of Education and Psychology - The Maharaja Sayajirao University of Baroda, is presently conducting a study entitled "A STUDY ON SOCIO EMOTIONAL LEARNING AND ITS RELATIONSHIP WITH GENDER AMONG THE ADOLESCENTS OF VADODARA CITY" as a part of the requirement of the program. This include a survey among 9th grade CBSE students & collection of their latest academic data to evaluate correlation.

The survey has 50 questions to be read and marked for degree of acceptance which ideally takes 25-30 minutes to complete.

In this regard, I request your approval to conduct the data gathering and data collection from your institution. I hereby assure you that the data collected will strictly be used for the dissertation purpose only and remain anonymous.

Thank you very much for your favourable approval and endorsement of this request.

Yours respectfully,

Vadodara

Date:

Swetha Mohan Das

Request authorised by:

Dr. Deepika Rajawat
Guide, Faculty of Education and Psychology
The Maharaja Sayajirao University of Baroda

ANNEXURE 4: LIST OF SCHOOLS

LIST OF CBSE SCHOOLS IN VADODARA CITY:

Serial Number	School Name
1	AMBE SCHOOL (CBSE)
2	ANAND VIDYA VIHAR
3	DELHI PUBLIC SCHOOL (HARNI)
4	BARODA PUBLIC SCHOOL
5	BASELIOUS PUBLIC SCHOOL
6	BRIGHT DAY SCHOOL VASNA (CBSE)
7	BRIGHT DAY SCHOOL HARNI (CBSE)
8	AVALON WORLD SCHOOL
9	CYGNUS WORLD SCHOOL (CBSE)
10	D R AMIN MEMORIAL SCHOOL (CBSE)
11	DELHI PUBLIC SCHOOL (KALALI)
12	GLOBAL DISCOVERY SCHOOL
13	AMBE PUBLIC SCHOOL (CBSE)
14	GREEN VALLEY HIGH SCHOOL
15	GUJARAT PUBLIC SCHOOL (CBSE)
16	MAURYAN HIGH SCHOOL

17	NALANDA INTERNATIONAL
18	SPECTRUM THE CONTEMPORARY SCHOOL
19	NEW ERA SENIOR SECONDARY SCHOOL
20	AMERICAN SCHOOL OF BARODA
21	PODAR INTERNATIONAL SCHOOL
22	PODAR WORLD SCHOOL
23	TREE HOUSE HIGH SCHOOL (CBSE)
24	BHARTIYA VIDYA BHAVAN'S V M PUBLIC SCHOOL
25	SHANNEN SCHOOL
26	NAVRACHANA SCHOOL
27	ST. KABIR INDIAN INTERNATIONAL SCHOOL
28	KENDRIYA VIDYALAYA NO-1
29	KENDRIYA VIDYALAYA NO-2
30	KENDRIYA VIDYALAYA NO-3
31	KENDRIYA VIDYALAYA NO-4
32	PRINCE ASHOK RAJE GAEKWAD SCHOOL
33	URMI SCHOOL (CBSE)
34	VIBGYOR INTERNATIONAL SCHOOL

SCHOOL SELECTION THROUGH RANDOM SAMPLING:

S. No.	School Name	School Code	Selected (Y/N)	Sample Code
1	AMBE SCHOOL (CBSE)	1	N	
2	ANAND VIDYA VIHAR	2	N	
3	DELHI PUBLIC SCHOOL (HARNI)	3	Y	S1
4	BARODA PUBLIC SCHOOL	4	N	
5	BASELIIOUS PUBLIC SCHOOL	5	Y	S2
6	BRIGHT DAY SCHOOL VASNA (CBSE)	6	N	
7	BRIGHT DAY SCHOOL HARNI (CBSE)	7	N	
8	AVALON WORLD SCHOOL	8	Y	S3
9	CYGNUS WORLD SCHOOL (CBSE)	9	N	
10	D R AMIN MEMORIAL SCHOOL (CBSE)	10	N	
11	DELHI PUBLIC SCHOOL (KALALI)	11	N	
12	GLOBAL DISCOVERY SCHOOL	12	Y	S4
13	AMBE PUBLIC SCHOOL (CBSE)	13	Y	S5
14	GREEN VALLEY HIGH SCHOOL	14	N	
15	GUJARAT PUBLIC SCHOOL (CBSE)	15	Y	S6
16	MAURYAN HIGH SCHOOL	16	N	
17	NALANDA INTERNATIONAL	17	N	

18	SPECTRUM THE CONTEMPORARY SCHOOL	18	N	
19	NEW ERA SENIOR SECONDARY SCHOOL	19	N	
20	AMERICAN SCHOOL OF BARODA	20	Y	S7
21	PODAR INTERNATIONAL SCHOOL	21	N	
22	PODAR WORLD SCHOOL	22	N	
23	TREE HOUSE HIGH SCHOOL (CBSE)	23	N	
24	BHARTIYA VIDYA BHAVAN'S SCHOOL	24	Y	S8
25	SHANNEN SCHOOL	25	Y	S9
26	NAVRACHANA SCHOOL	26	N	
27	ST. KABIR INDIAN INTERNATIONAL SCHOOL	27	N	
28	KENDRIYA VIDYALAYA NO-1	28	N	
29	KENDRIYA VIDYALAYA NO-2	29	Y	S10
30	KENDRIYA VIDYALAYA NO-3	30	N	
31	KENDRIYA VIDYALAYA NO-4	31	N	
32	PRINCE ASHOK RAJE GAEKWAD SCHOOL	32	N	
33	URMI SCHOOL (CBSE)	33	N	
34	VIBGYOR INTERNATIONAL SCHOOL	34	N	

LIST OF SCHOOLS SELECTED THROUGH RANDOM SAMPLING:

S. No.	School Name	School Code	Selected (Y/N)	Sample Code
1	DELHI PUBLIC SCHOOL (HARNI)	3	Y	S1
2	BASELIIOUS PUBLIC SCHOOL	5	Y	S2
3	AVALON WORLD SCHOOL	8	Y	S3
4	GLOBAL DISCOVERY SCHOOL	12	Y	S4
5	AMBE PUBLIC SCHOOL (CBSE)	13	Y	S5
6	GUJARAT PUBLIC SCHOOL (CBSE)	15	Y	S6
7	AMERICAN SCHOOL OF BARODA	20	Y	S7
8	BHARTIYA VIDYA BHAVAN'S V M PUBLIC SCHOOL	24	Y	S8
9	SHANNEN SCHOOL	25	Y	S9
10	KENDRIYA VIDYALAYA NO-2	29	Y	S10

