DEVELOPING CHILDREN'S SCALE FOR SOCIAL-EMOTIONAL LEARNING (CHISSEL)

Insights from the Government Schools in Maharashtra

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FLAME UNIVERSITY

PREFACE ←

It gives us immense pleasure to present the preliminary report on the Children's Scale for Social-emotional Learning (CHISSEL). This project marks a significant milestone in our ongoing efforts to understand and enhance social-emotional learning (SEL) among middle school students in Maharashtra. At Leadership for Equity (LFE), we believe that the holistic development of children is crucial for building a resilient and equitable society. This report is a testament to our commitment to integrating SEL into the fabric of the Indian educational system.

The journey of CHISSEL began with a shared vision of LFE & FLAME to create a reliable and culturally relevant tool that could measure and promote SEL competencies among students. We recognise that while academic achievement is essential, the ability to manage emotions, build relationships, and make responsible decisions is equally important for the overall well-being and success of children. This understanding drove us to collaborate with FLAME University, bringing together a dedicated team of researchers, educators, and psychologists to develop the CHISSEL tool. The findings from this study provide valuable insights into the current state of SEL among middle schoolers in Maharashtra. They highlight areas where interventions are needed and underscore the importance of incorporating SEL into school curricula. The development of CHISSEL involved rigorous processes of item generation, validation, and testing, ensuring that the tool is robust and applicable to the diverse contexts of Indian schools.

We extend our heartfelt gratitude to Dr. Shalaka Sharad Shah, Dr. Shivakumar Jolad, and Anirudh Prasadh, whose expertise and dedication have been instrumental in bringing this project to fruition. Their rigorous approach and valuable insights have been crucial in developing the CHISSEL tool. Special thanks to the schools, teachers, and students who participated in the study and provided invaluable support.

This report is not just a culmination of our research efforts but a starting point for future initiatives aimed at fostering social-emotional development in schools across India. We hope that the insights and recommendations presented here will guide researchers, policymakers, educators, and stakeholders in creating supportive and nurturing environments where every child can thrive. We look forward to continuing our journey towards equitable education and holistic development, and we invite you to join us in this endeavour.

Warm regards,

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Disclaimer

The authors declare that the CHISSEL tool is still under construction and should be used with great caution. We have been successful in establishing reliability for the tool, but the validity and other standardization processes are yet to be completed. Anyone who wishes to use the tool in any context should seek permission from LFE & FLAME University.

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LIST OF ABBREVIATIONS

CASEL	Collaborative for Academic, Social, and Emotional Learning
MDI	Middle Years Development Instrument
CHISSEL	Children's Scale for Social-emotional Learning
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
RMSEA	Root Mean Square Error of Approximation
CFI	Comparative Fit Index
CI	Competency Index
SRMR	Standardised Root Mean Square Residual
LFE	Leadership for Equity
NEP	National Education Policy
NCF	National Curriculum Framework
NIPUN Bharat	National Initiative for Proficiency in Reading with Understanding and Numeracy
PCMC	Pimpri Chinchwad Municipal Corporation
NMC	Nagpur Municipal Corporation
SEL	Social-Emotional Learning
SOP	Standard Operating Procedure
SSIS SELb-S	Social Skills Improvement System Social-Emotional Learning Brief Scales
UDISE	Unified District Information System for Education
ZP	Zilla Parishad

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TABLES AND FIGURES

> *... the need for accessible, culturally relevant self-report tools in local languages remains significant.*

CHISSEL

EXECUTIVE SUMMARY

INTRODUCTION

In India, while education policies are well worded and well-intentioned, adequate culturally sensitive tools and research are missing to help with the smooth implementation of these policies. This is the most evident case of socio-emotional learning which is crucial for learning outcomes. The implementation of SEL in schools boosts academic success by developing vital skills like self-regulation, communication, and teamwork. These skills benefit students in the long term, preparing them for challenges in adulthood. SEL promotes self-awareness, self-control, and interpersonal skills crucial for success. While gaining popularity in Western education, it is emerging in India.

Understanding SEL status can guide improvements in student well-being, skills, and mental health. Utilising frameworks like CASEL and NIPUN Bharat policies helps define key competencies for holistic student development. The National Curriculum Framework (NCF) 2023 emphasises the integration of biological, cognitive, and social-emotional processes in shaping development for different life stages, from infancy to adolescence, emphasising the importance of social-emotional growth at each stage, including self-regulation, coping strategies, and complex emotional understanding.

SEL in India faces challenges such as limited awareness among parents about the importance of SEL screening, the complexity and cost of conventional assessment methods, and the predominance of foreign-origin screening tools that are often culturally inappropriate. Most current tools rely on teacher or external observer assessments, highlighting the need for a culturally sensitive, self-report questionnaire that can be efficiently administered and scaled across diverse linguistic and cultural contexts.

Efforts have been made to integrate SEL into education through frameworks for example the Indian Social and Emotional Learning Framework (ISELF) (The Teacher Foundation, 2022), which is age-appropriate and culturally relevant. There have been efforts to develop culturally sensitive tools, such as the Social and Emotional Learning and Orientation Scale (SELOS) (Sharma, *et. al*, 2022) in Hindi, to better assess SEL for teachers in the Indian context. However, the need for accessible, culturally relevant self-report tools in local languages remains significant.

ABOUT THIS STUDY

The Children's Scale for Social-emotional Learning (CHISSEL) project, initiated by Leadership for Equity (LFE) in collaboration with FLAME University, aimed to create a framework and assess SEL competencies among middle school students in Maharashtra. The objective of the CHISSEL project was to develop a reliable and culturally appropriate tool for measuring SEL among students in grades 6, 7, and 8 in Government schools in Maharashtra. The secondary objective was to assess the current levels of SEL in government schools in Maharashtra. Two studies were conducted in the years 2022 and 2023 and based on established frameworks such as the Collaborative for Academic, Social, and Emotional Learning (CASEL), Middle Years Development Instrument (MDI) and the NIPUN Bharat initiative and Pratham's Life Skills Framework. These frameworks guided the identification and definition of key SEL domains, including self-management & decision-making, relationship skills, and social awareness and self-awareness. The sample for the two studies was drawn from rural and urban schools across eight jurisdictions, in six districts (See **Figure 1**) in Maharashtra, ensuring a representative and stratified approach to data collection.

Survey areas of CHISSEL-1.0 and 2.0

■ CHISSEL-1.0 and 2.0   ■ CHISSEL-2.0
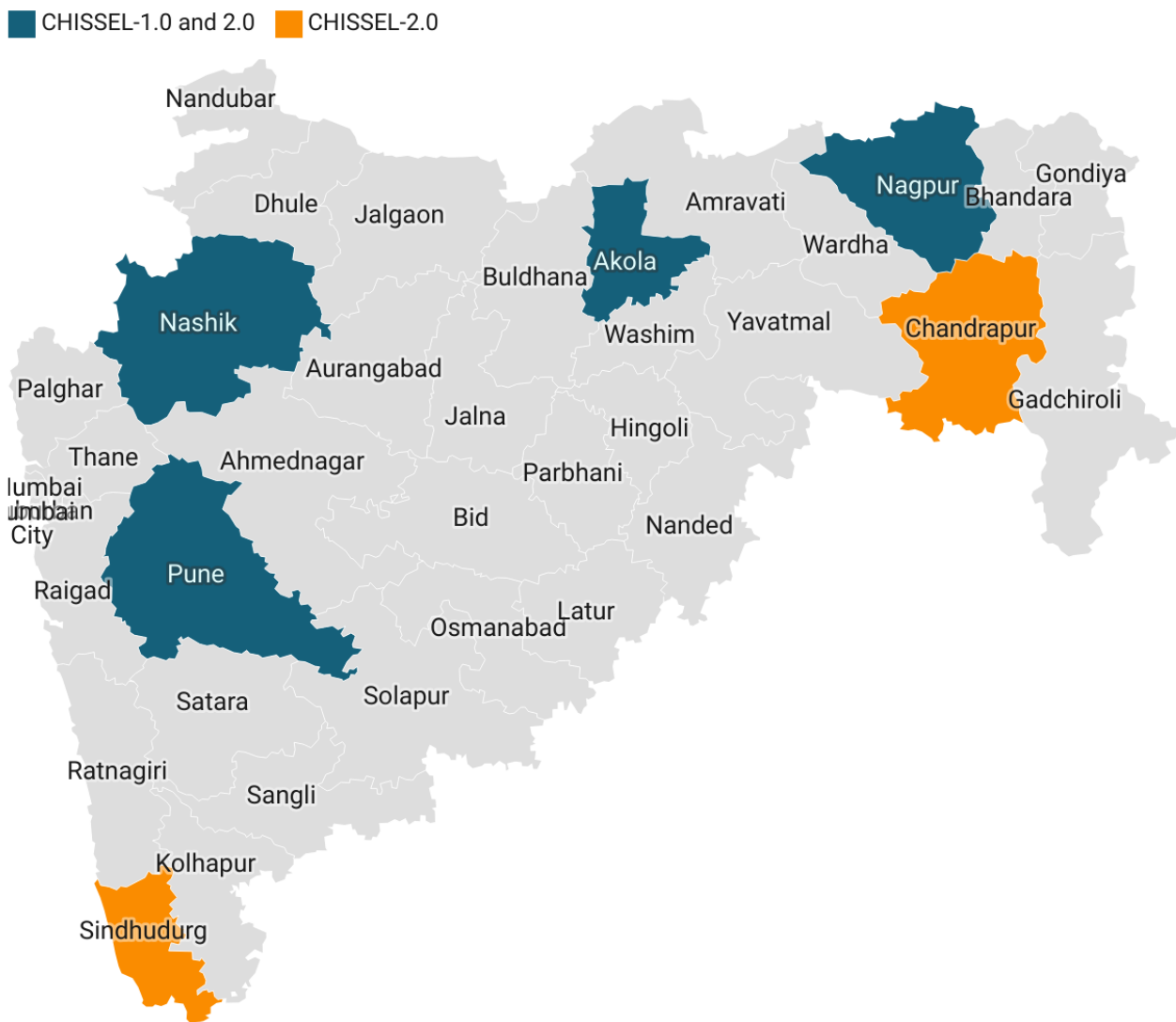
Map data: © OSM · Created with Datawrapper

Figure 1. Survey districts for SEL study (CHISSEL 1.0 and CHISSEL 2.0) in Maharashtra

SEL DOMAINS AND DEVELOPMENT OF CHISSEL TOOL

To create the CHISSEL 1.0 tool, 36 initial items were drawn from validated assessment tools primarily from Western literature, focusing on five key competencies: Self-management, Decision-making, Relationship skills, Social awareness, and Self-awareness. These items underwent a thorough review by experts (psychologists, education experts, and field experts) after which 8 items were removed, leaving a final set of 28 items translated into Marathi, which was again reviewed by experts. The items were sequenced by competency to ensure clarity and ease of understanding for the participants and administered on students in 2022 for Study 1 (N=1647). CHISSEL 1.0 was found to be fairly reliable, with a reliability score of 0.71 (reliable range is 0.60-0.80). We then analysed these 28 items using Exploratory Factor Analysis (EFA). This analysis increased reliability as it helped to find out statements that statistically fall under specific factors. The EFA revealed five main factors that explained about 30.73% of the variation in responses.
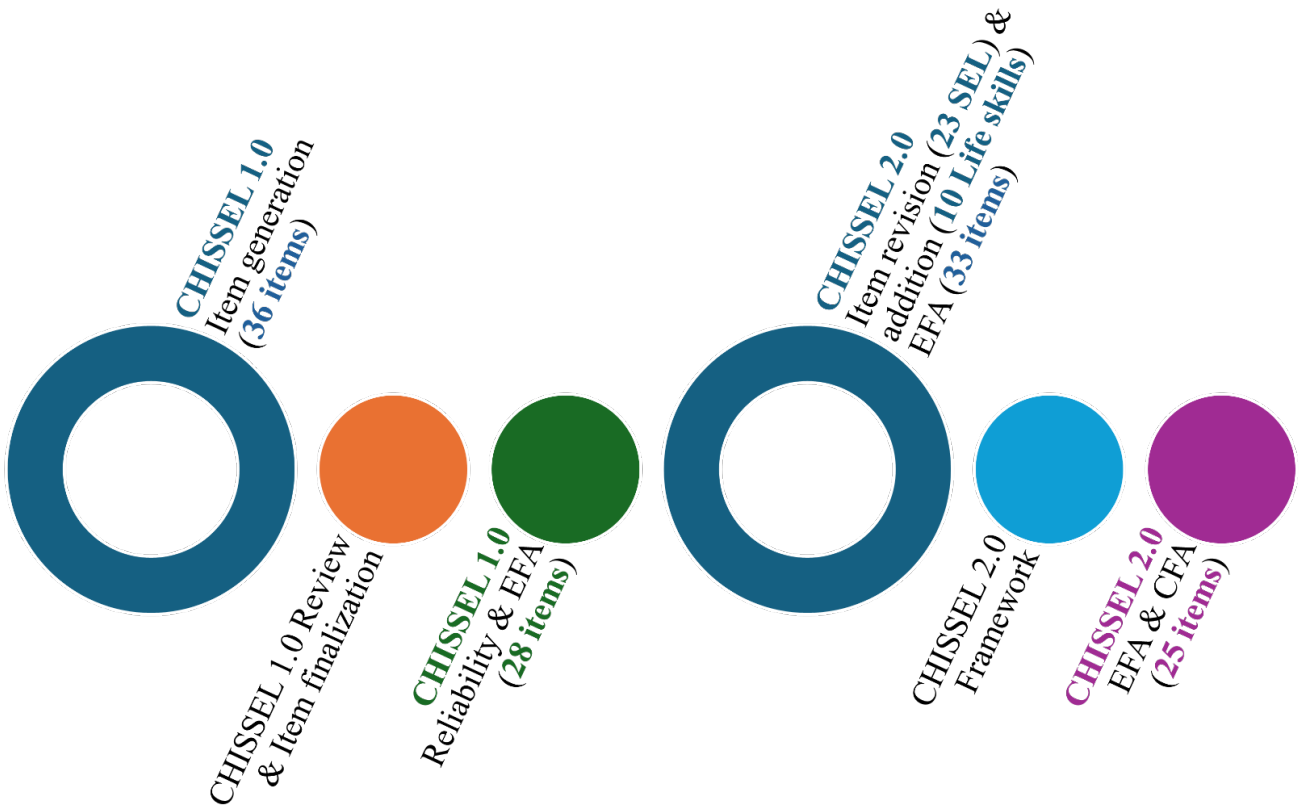
Figure 2. Timeline for CHISSEL tool development
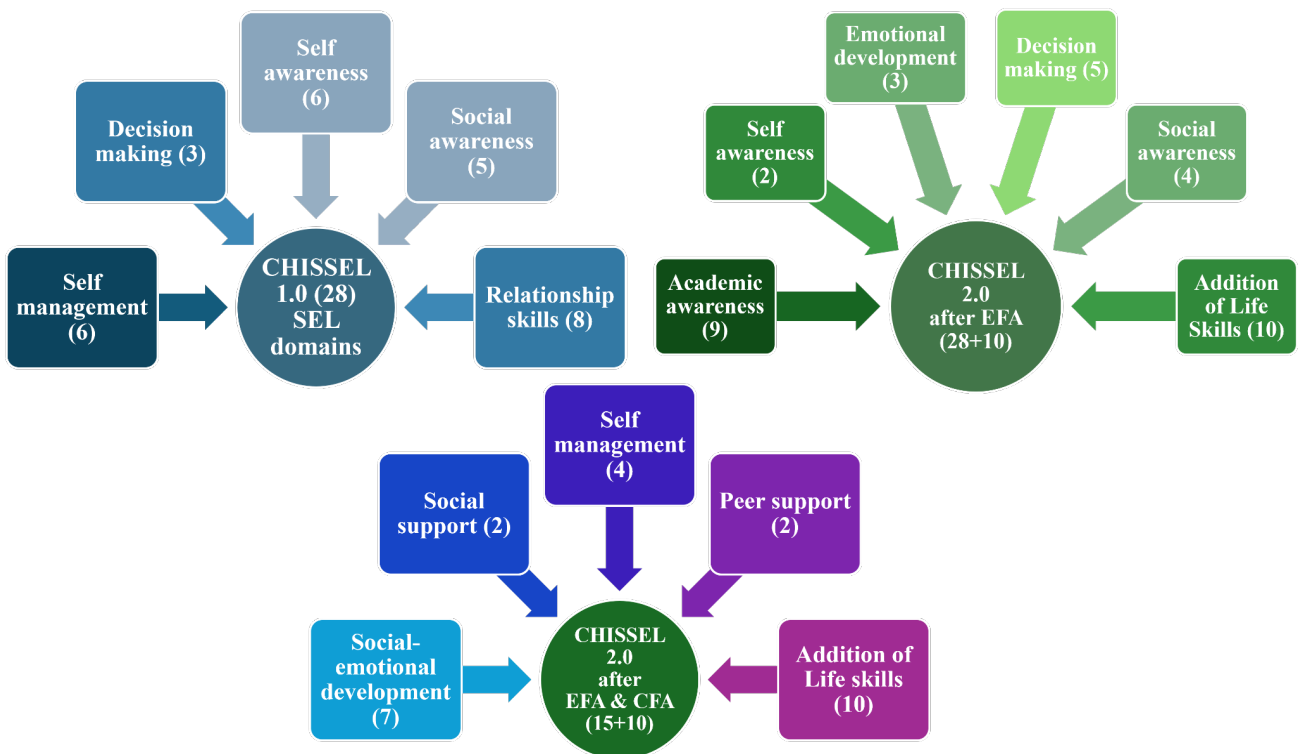
Figure 3. Overview of CHISSEL 1.0 & 2.0 domains and items

A second round of data collection (*N*=3142) was conducted for Study 2 in 2023 to test the reliability of CHISSEL 2.0 wherein we added 10 new life skills items focusing on leadership potential, digital literacy, and problem-solving behaviour, drawn from the Pratham Life Skill Framework, which increased the tool's reliability to 0.75. Another EFA for CHISSEL 2.0 resulted in four factors: social-emotional development, social support, self-management, and peer support. After removing 5 of the original questions due to low reliability, we reanalysed the remaining 23 items using Confirmatory Factor Analysis (CFA) related to social and emotional learning (SEL) and confirmed four factors that explained 15.6% of the variation. The final CHISSEL 2.0 tool includes a total of 25 items, 15 related to social-emotional learning and 10 related to life skills.

Figure 4. Dendrogram illustrating the final domains, subdomains, and items (15+10) after the factor analyses of CHISSEL 1.0 and 2.0

DESCRIPTIVE ANALYSIS OF CHISSEL 1.0 AND CHISSEL 2.0

For the descriptive analysis, we calculated the Competency Index (CI) for all the domains. The CI is the normalised score of the domain under consideration, calculated as the sum of all the normalised scores for the competency/Total number of items in the competency. The minimum and maximum CI are 0 and 1. CHISSEL Index is the cumulative CI across all domains under consideration.

For CHISSEL -1.0 (year 2022), initial overall results indicated that self-awareness CI were the lowest and social awareness scores were the highest. **Table 1** shows the CI for males and females across different domains. The values are in general high, except for self-awareness and decision-making, highlighting the need for targeted interventions in these domains. Females scored higher than males for all domains except for Self-awareness, wherein males scored slightly higher than females.

Table 1. CHISSEL 1.0 Average Competency Index (*N* = 1647)

SEL Dimension	Female	Male	Total (Male-Female)	Gap (Female-Male)
Self-management	0.723	0.714	0.719	0.009
Decision making	0.645	0.627	0.637	0.018
Self-awareness	0.563	0.569	0.566	-0.006
Social Awareness	0.764	0.759	0.762	0.006
Relationship skills	0.757	0.735	0.747	0.023
CHISSEL 1.0 Cumulative Index	**0.698**	**0.687**	**0.693**	**0.01**

In **Table 2,** we show the CI for domains under CHISSEL 2.0 (2023) for males, females, total and the gender gap. Almost all domains show gender differences. Females scored slightly higher than males for all domains namely academic awareness, self-awareness, emotional development, social awareness and decision-making except for life skills.

Table 2. CHISSEL 2.0 Average Competency Index (*N* = 3142)

SEL Dimension	Female	Male	Total (Male-Female)	Gap (Female-Male)
Academic Awareness	0.792	0.771	0.781	0.021
Self Awareness	0.722	0.701	0.712	0.021
Emotional Development	0.755	0.709	0.732	0.046
Social Awareness	0.803	0.789	0.796	0.014
Decision Making	0.666	0.648	0.657	0.017
Life Skills (LS total)	0.674	0.695	0.685	-0.021
LS-Problem Solving	0.720	0.713	0.717	0.008
LS-Leadership Skills	0.707	0.701	0.704	0.005
LS-Digital Literacy	0.615	0.678	0.647	-0.063
CHISSEL 2.0 Cumulative Index	**0.733**	**0.722**	**0.728**	**0.011**

IMPLICATIONS FOR POLICY AND PRACTICE

The CHISSEL project aligns with the goals of the New Education Policy (NEP) 2020, which emphasises the importance of social-emotional development in education. By providing a reliable measure of SEL and life skills, the project supports school-level interventions, a great foundation for teacher training at the school level, data-driven policy decisions and educational practices aimed at improving student well-being and academic performance.

Targeted interventions for practice - Implementing programs and activities at the school level that specifically address areas of low competency such as decision-making, self-awareness and life skills for students of grades 6,7,8. Gender-based significant differences (*t*-test results) call for specific interventions in the areas of emotional development for males and life skills for females in this age group.

Further steps: The findings from the CHISSEL project underscore the critical importance of integrating SEL into school curricula. Overall, social awareness was observed to be highest across the sample. To foster holistic student development, schools and NGOs should focus on enhancing competencies in *decision-making and life skills (leadership, digital literacy and problem-solving)*.

The study recommends:

Continuous tool refinement: Further refining the CHISSEL tool by validating it to ensure its robustness, relevance and effectiveness across 6,7,8 grades. After validation, the tool would be translated into other Indian languages to benefit students from other Indian states.

Further research: Conduct ongoing research to adapt and expand the CHISSEL tool for broader application to higher grades (8-12) and within different Indian states and educational settings. While working on children's SEL we also see great potential for assessing teachers' SEL and developing a framework for developing SEL for teachers to enhance students' SEL.

> *SEL involves developing self-awareness, self-control, and interpersonal skills that are vital for success in school, work, and life.*

1. INTRODUCTION

Since gaining independence, India has made remarkable strides in ensuring access to elementary education for all children. Today, more than 96% of habitations have a neighbourhood elementary school, enrollment rates in primary and upper primary levels are nearly 100%, dropout rates are in the single digits, and school infrastructure has seen significant improvements. Despite these advancements, India is facing a learning crisis. Surveys by ASER and government assessments reveal that while children are attending school, they are not achieving the expected learning outcomes. Nearly half of the children in Grade V are unable to perform Grade II level reading and mathematics tasks (ASER Center, 2019).

To ensure long-term student well-being and improve academic and personal performance, it is essential to build key competencies related to social-emotional development. Social well-being refers to an individual's ability to form healthy social relationships (Ramirez, 2021), while social-emotional development aligns thoughts and actions to achieve positive outcomes. SEL involves developing self-awareness, self-control, and interpersonal skills that are vital for success in school, work, and life. It builds the capacity to recognise and manage emotions, solve problems effectively, and establish positive relationships (CASEL, 2003).

SEL is an educational movement gaining momentum in the West and gradually making its way into India. Understanding the status of SEL can help teachers, schools, and students identify areas for improvement, thus ensuring long-term student well-being and enhanced academic and personal development. The domain of student well-being is vast and overlaps with other areas such as life skills, personality development, and mental health.

Recently, the Indian government introduced the New Education Policy (NEP) 2020, which adopts a comprehensive approach to education. The National Curriculum Framework for School Education (NCF) 2023, prepared in line with NEP-2020, highlights the significant influence of social-emotional development on other areas of child growth, including physical, cognitive, and language development. It stresses that child development is driven by the interplay of three key processes: biological, cognitive, and social-emotional. Thus the trio: policy NEP 2020, curriculum NCF 2023, and the programme NIPUN Bharat emphasise the importance of social-emotional development and life skills among students, highlighting SEL as a critical aspect of holistic development (Ministry of Human Resource Development, 2020; Ministry of Education, 2021). In response, the research team at Leadership for Equity (LFE) and faculty at FLAME University, Pune, partnered to develop a tool to document students' SEL and provide data-based insights to support systemic efforts to improve SEL levels, particularly in government schools.

This study draws from the CASEL framework and NIPUN Bharat policy to define student well-being. By comparing the life skills outlined in the NIPUN document with the competencies highlighted by CASEL, key competencies were identified and defined. These include:

1 Self-management and Decision Making	2 Relationship Skills	3 Social Awareness combined with Self-Awareness

OBJECTIVES AT A GLANCE

The study aimed to understand the context of social-emotional development and life skill development among Indian school children, which remains largely unexplored. The findings will help formulate a curriculum for social-emotional development and life skills tailored to the Indian context.

The primary objective of this study was to identify and define the relevant domains of Social-Emotional Learning (SEL) in the Indian context. Recognising that SEL domains overlap with other psycho-social-emotional areas such as life skills, personality development, and child

and adolescent mental health, this study aimed to draw from the CASEL framework, the directives of NEP-2020 on SEL and life skills, and the NIPUN Bharat policy (pre-primary to 3rd grade) to define student well-being (Ministry of Education, 2021). Specifically, the life skills outlined in the NIPUN document are compared with the competencies highlighted by the CASEL framework.

Another key objective was to construct a tool to measure SEL in schools to understand its current status. The study will provide a basic reliability analysis of the SEL tool along with exploratory factor analysis to assess its efficacy. Additionally, the study aimed to explore the levels of SEL competencies among 6th, 7th, and 8th graders in Maharashtra, which could help schools identify strengths and areas for improvement, enabling targeted interventions to boost SEL in their respective schools.

SPECIFIC OBJECTIVES

01

DEFINING SEL IN THE INDIAN CONTEXT
Review existing tools and related literature to define SEL in the Indian educational landscape.

02

ASSESSING THE CURRENT STATE OF SEL
Measure the SEL competencies and life skills of middle school students (6th to 8th grade) to enable them to sustain a sense of well-being.

03

DEVELOPING SEL TOOL
Based on the pilot of the tool a refined SEL measurement tool (CHISSEL) tool needs to be designed and implemented on 6th, 7th, and 8th graders in government schools in Maharashtra.

04

REFINING THE SEL TOOL
Check the reliability of the tools constructed in Study 1, shuffle the tool items based on factor analysis and retest the items based on Study 2. Revise items based on confirmatory factor analysis model for higher reliability.

05

UNDERSTAND CURRENT SEL LEVELS
Conduct a layered data analysis to understand current SEL levels based on gender, grades, districts, and SEL domains.

> *There is a need for thorough research and discussion on the benefits of incorporating SEL into academic early childhood settings.*

CHISSEL

2. STATUS OF SEL - A REVIEW

Social-emotional learning (SEL) deals with managing one's behaviour, responsible decision-making, self-awareness, awareness of the feelings and thoughts of others, and the process of recognising and managing thoughts (Zins & Elias, 2007). Studies on SEL gained increased attention as several research studies show that emotionally stable and socially connected children outperform their peers academically. Such children grow up to be responsible, productive members of society and are prepared for the challenges of the twenty-first century (Denham et al., 2016; Oberle et al., 2016). Cognitive development research demonstrates how SEL can be taught in the classroom in a way that is comparable to other types of academic learning (Masten, 2001). In several countries, SEL became an eminent part of several classrooms as empirical evidence is found to be contributing to the impact of SEL on the well-being and mental health of students.

Some studies on meta-analyses examining the impact of SEL programs on child and adolescent development found a) a decline in externalised behaviour like disobedience, aggression, bullying, and delinquency and b) a positive effect on relationship skills, problem-solving, and self-regulation (Boncu et al., 2017; Taylor et al., 2017). Additionally, SEL addresses some of the mental health-related issues like conduct disorder and emotional distress and they also contribute towards improved positive attitude towards self and others (Durlak et al., 2011). Study by Payton et al. (2008) shows that SEL interventions added 11 to 17 percentile rank gains to elementary and middle school children's academic achievements. Aspects like relationships and emotional building are getting addressed through the SEL for a better and brighter future of the students.

Hemans et al., 2023 investigated school staff's perceptions of holistic youth development and SEL pedagogy at two Akanksha school sites in India and found that the school staff prioritised a holistic pedagogical approach to SEL that focused on parent engagement and youth leadership as strategies to resist and prevent social inequities. The study underscored the importance of staff development programs for implementing SEL pedagogy. McCallops et al. (2019) confirm that only few SEL studies engage in culturally responsive SEL interventions, which results in marginalising the cohorts of students who are not members of mainstream cultures. Another critique put forth is the issue of social justice in relation to SEL. The SEL skills that students acquire are useless if power dynamics and the consequences of heteronormativity, racism, sexism, and other injustices are not acknowledged. This leaves students unprepared for these realities and without knowledge of how to alter them (Hemans et al., 2023).

SEL programs viewed as mere "add on" in preschools may not prove to be as effective. The SEL programs at the preschool level need to be more comprehensive and as catalysts, they can yield better social-emotional outcomes, SEL must be embedded in academic interventions (Hansen, 2017). There is a need for thorough research and discussion on the benefits of incorporating SEL into academic early childhood settings. The direct academic benefits of SEL for young children have been examined significantly less frequently than its well-established advantages for elementary and secondary school students. However, there is hope that SEL in an early childhood setting can foster academic success on the impact of SEL on student conduct and student-teacher relationships (Zins & Elias, 2007).

Another aspect to be considered while implementing SEL programs is Adverse Childhood Experiences, where the impact of childhood adversity is well-known; the higher the ACE score, the greater the risk for physical and mental health challenges, behaviour problems and learning problems (Harris, 2018). When misfortune does strike, we want children and young people to be strong enough to bounce back by using their innate ability to self-regulate as a buffer against the trauma's consequences, and SEL programs should aim at delivering this. Children in India experience adversity and are exposed to biological and social risk factors (Paul & Singh, 2020). It is estimated that one in seven Indians was affected by mental disorders. The proportion of mental disorders to the total disease burden in India has almost doubled in 2017 as compared to 1990 and DALY (Disability-Adjusted-Life-Years) contribution due to mental disorders to total DALYs in India reaching 4.7% in 2017 *vs* 2.5% in 1990 (Sagar et al., 2020). Addressing these issues calls for a more holistic approach in curriculum development. Brookings contends that a strictly academic approach will be counterproductive. For learning to be effective and for them to demonstrate results, those emotional requirements must be met in addition to education (Grob-Zakhary & Hjarrand, 2017).

ASSESSMENT OF SEL

There are multiple and diverse techniques available for assessing SEL competence. Existing approaches have emerged from different paradigms like youth risk, developmental assets and mental health. One of the popular SEL measures is the Behaviour Assessment System for Children-3 (BASC-3) (Reynolds & Kamphaus, 2015). This test battery helps to assess behavioural and emotional functioning of children, adolescents and young adults. Another popular scale which is used to measure social competence and antisocial behaviour in children is School Social Behavior Scales-2 (SSBS-2) (Merrell, 2002). A three-phased model for learners' evaluation of SEL competencies has been proposed by Taylor & Spinrad (2017). Phase one relates to preparation, phase two relates to selection of assessment and phase three relates to the implementation and evaluation of SEL.

The SSIS SELb-S (Anthony et al., 2022) and the short-form version of the SEARS for adolescents (SEARS-A SF; Nese et al., 2012) are some of the measures of SEL developed for adolescents. The SSIS SELb-S was validated using data from children in Grades 3-12 and was designed to overcome issues encountered when employing long-form measures such as large-scale (e.g., universal assessment/screening) or repeated (e.g., periodic progress monitoring) scales. Similarly, the SEARS-A SF was generated to aid in monitoring systematic progress and screening. The SSIS SELb-S and the SEARS-A SF both have virtuous psychometric properties and the SEARS-A SF has exceptional correlational validity with the long-form version (Anthony et al., 2022; Nese et al., 2012).

CHILDREN'S SCALE FOR SOCIAL-EMOTIONAL LEARNING

An in-depth literature review of SEL reveals that the majority of published SEL research has been undertaken in North America (e.g., Rimm-Kaufmann et al., 2014; Schonert-Reichl et al., 2015), followed by Europe & the United Kingdom (Banerjee et al., 2013). Comparatively less work has been done in Asia. Torrente et al., (2015) studied SEL policies in Asia and found that SEL has grown in popularity over the years to help Asian education systems move from focusing only on academics to including 21st century skills in the education system. It is worth noting that this assumes an implicit predominance of SEL competencies in the national education system, with an underlying focus on cultural consonance in these nations (Lagi & Armstrong, 2017), but the literature review shows the absence of an explicit SEL measure in the Asian context.

ROLE OF PARENTS, TEACHERS SEL & EVALUATION OF SEL PROGRAMS

Parents are more aware of the elevated risk of negative consequences of social-emotional difficulties in children such as low academic performance and issues related to mental health (Briggs-Gowan & Carter, 2008). While for teachers, a lack of SEL abilities may result in negative outcomes, such as burnout and decreased efficiency in the classroom, a teacher with strong SEL skills can establish a strong bond with the students, engage in more dynamic activities, and manage the classroom efficiently (Jennings & Greenberg, 2009). There has been a rising recognition for the teacher's role in the screening and diagnostic process of SEL in recent years (Schanding et al., 2012). Evidence suggests that the efficiency of children's learning can be accurately assessed by classroom teachers. Furthermore, there was a strong correlation between these scores which consequently contribute to interpersonal and academic success (Dean & Steffen, 1984).

S SEQUENCED

A ACTIVE

F FOCUSED

E EXPLICIT

R REFLECTION

In light of this, (Oliver & Berger, 2020) provided the abbreviation 'SAFER' which stands for five measures that make up effective SEL programs in schools. This can improve the process of developing and implementing them when SEL activities are planned in a connected and coordinated way and are "sequenced" (S). The word "Active" (A) emphasises the importance of student engagement in activities. Focused (F) refers to a plan that shows the required resources and the detailed anticipated results of SEL. By discovering the gaps or limitations, SEL programs must be made "Explicit" (E) in order to focus on particular SEL abilities. The fifth measure in the abbreviation that has been adopted from the work of Blyth et al., (2017) is "Reflection" (R), which refers to self-evaluation and the role of SEL in life.

In the Indian context recently Project Sampoorna was implemented in 60 schools covering 27,000 adolescents, 7000 parents, and 500 teachers. As part of the parent engagement strategy, the project's objective is to enable parent mindset change so that they can support their children's emotional wellbeing at home. The aforementioned interventions such as the Interactive Voice Response System and the thematic webinars were implemented between May 2021 and January 20222 to enable parents to drive SEL activities at home. These interventions were undertaken across 5 districts of Jharkhand, namely Giridih, Chatra, Palamu, East Singhbhum, and Dumka (Singh, 2021).

Enhanced social-emotional competence and higher academic achievement has been found to be a result of the execution of various SEL frameworks (Schonert-Reichl, 2017; Yeager & Walton, 2011; Gehlbach & Chuter, 2020). The majority of frameworks are mainly focused on three distinguished yet interconnected components such as the learning set-up, the SEL of the learner, and the SEL of the educator.

The learning setting:

SEL skill development and interventions should occur in a safe, mindful, strong, participatory environment where learning can happen in an effective way. The structure of the classroom, rules and regulations of the classroom, hierarchical setting of the school, communication style, responsibilities of the students regarding academic accomplishment and parental and local area inclusion are some of the factors that should be incorporated in the learning settings.

SEL of learners:

SEL involves procedures that learners achieve and constructively use their knowledge in order to empathise, achieve positive goals, develop healthy relationships, make wise decisions, and cope with their emotions.

SEL of educators:

The relationship of the educator with the student is influenced by the social-emotional competence and well-being of the educator. If the educator does not hold the essential SEL skills it becomes a tedious task for them to help students (Damodaran et al, 2022).

Furthermore, regarding the evaluation of the outcomes of SEL programs Singh and Duraiappah (2020) recommend the following outcomes

☆ Communicate SEL as a priority

☆ Establish a common language for SEL

☆ Deepen understanding of how SEL competencies manifest in students over time

☆ Continuously improve SEL instruction and implementation

☆ Evaluate the effectiveness of SEL programs and approaches

☆ Support equitable outcomes in education

SEL STATUS IN INDIA

SEL program implementation is gradually gearing up in the Indian context. The report of Pratham's Annual Status of Education in 2019 sheds light on below-average academic performance of children between ages of 4 and 8 in various Indian states, signifying the necessity for a strong emphasis on cognitive skills during the early years as it can have a huge impact of the education on the overall development of the child. To promote Indian children's holistic growth through education, attempts were made to integrate SEL competencies into the context of learning (The Teacher Foundation, 2022). Based on the comprehensive result of the study done by The Teacher Foundation, the Indian Social and Emotional Learning Framework (ISELF), is an age-banded framework appropriate for the Indian context. In highly populated, culturally diverse nations like India, SEL programs must be established in diverse and culturally sensitive ways, where the implementation will look different for different regions. In an effort to empower teachers' SEL competencies, Sharma et. al. (2022) developed a self-report Social and Emotional Learning and Orientation Scale (SELOS) - a culturally sensitive 8-item scale in Hindi for teachers. The discriminant validity, reliability and partial measurement invariance across genders of this scale deliver inspiring evidence for using it for culturally sensitive studies of SEL in India as well as Hindi-speaking areas of the world.

Das & Rabindranath (2022) have conducted extensive work on SEL competencies through the Happiness curriculum. The report discusses the conceptual approaches to happiness and education - scientific approaches such as positive education, social and emotional learning and Indian and Western philosophical approaches. The Happiness Curriculum is taught in Delhi government schools to pupils in Nursery through Grade 8 (ages 3 to 14) in 45-minute "happiness classes." It concentrates on three primary areas, ideally during the first period of the day: In classrooms, practices include mindfulness, storytelling, and activity-based conversations and reflections. The happiness curriculum's impact will be visible in coming years, the report mentions that current efforts should be focused on making sure it is consistently reviewed and implementing strategies that encourage learning as a joyful experience for students and redefine what it means to be successful. to incorporate pupils' flourishing. Some more efforts are being taken through initiatives such as the integrated teachers' training program by NCERT - National Initiative for School Heads and Teachers' Holistic Advancement (NISHTHA). This training module includes one module on developing social-personal qualities for creating a safe and healthy school environment. Samagar Shiksha Abhiyan is an integrated school education program by the Government of India for quality education for all (class 1 to 12) which emphasises Gender Equity, Inclusive education, Quality and Innovation. ATAL Tinkering Labs are being established in schools under ATAL Innovation Mission by NITI Ayog, wherein ATLs mission is also to develop Social-Emotional Learning of students.

Another large-scale SEL initiative by Dream a Dream is worth mentioning. Their After School Life Skills Programme (ASLSP), which was introduced in 2002, offers creative, non-traditional learning opportunities through sports and the arts to help kids, ages 8 to 14, develop critical life skills like problem-solving, collaboration, teamwork, and critical thinking. In order to guarantee that youth are prepared for adulthood, the Career Connect Programme (CCP) was launched in 2010. CCP offers high-impact life skills in computer education, spoken English, communication skills, money management, and workplace readiness to young people aged 15 to 23. These skills will help young people become resilient, adaptable, and self-assured, enabling them to make a successful transition to adulthood (Talreja, 2022).

CHALLENGES AND PRIORITIES OF SEL IMPLEMENTATION IN INDIA

Recent research in India has identified several challenges regarding SEL screening (Juneja et al., 2012; Mukherjee et al., 2014). One of the challenges is that parents are uninformed that screening services exist, and many times they do not understand why such services are needed. Another challenge is the majority of conventional procedures for assessing social-emotional issues require direct elicitation of children's skills and are tedious to administer. These tests necessitate a child's cooperation in an unfamiliar environment and they are time-consuming and costly (Juneja et al., 2012). Most of the screening tools used in India are of foreign origin, which makes them expensive, difficult to access and require training. On the positive side, developing culturally appropriate tools should be a priority. Screening techniques developed in India are linguistically and culturally appropriate (Mukherjee et al., 2014) and (Kvestad et al., 2013) adapted the Ages and Stages Questionnaire 3 (ASQ-3) in Indian context taking cultural context into account with the goal of employing the tool for a wide range of children at a low cost.

NEP-2020 AND NCF-2023: SOCIAL-EMOTIONAL DEVELOPMENT

The National Curriculum Framework for School Education draft (2023) clearly enlists the development across domains for children at all life stages (infancy, early childhood, middle to late childhood, and adolescence). NCF draft notes that specifically for middle to late childhood, ages 6-7 years to 10-11 years, children master the fundamental capacities and understanding for survival and growth. Their physical, emotional, and cognitive growth happens rapidly due to the socio-cultural exposure they get. Regarding SEL, children have increased self-understanding about their social and psychological characteristics, including social comparison. The development of self-regulation is an important aspect in life as children begin understanding complex emotions such as pride and shame, there are improvements in the ability to suppress or deal with negative emotions, and the ability to redirect feelings. Children learn to use a greater variety of coping strategies.

SEL has been included in Indian curricula in a variety of ways because of the National Council for Educational Research and Training's (NCERT, 2005) wide objectives. Nevertheless, SEL aims have been made explicit in the new National Education Policy, which was unveiled in 2020 (Ministry of Human Resource Development, Government of India, 2020), and can be seen as a step toward its mainstreaming in Indian schools. Even though this is favourable news, it also poses difficulties for implementation, especially as there are no culturally sensitive scales available in Indian languages that can be used to evaluate learners' needs and create effective interventions (Sharma et. al, 2022).

NCF 2023 on Social-emotional and ethical development

Child development is shaped by the interaction of three distinct processes: biological, cognitive, and social-emotional. These processes are intricately connected, each contributing to the physical, cognitive, linguistic, social-emotional, and moral growth of a child (See **Figure 2.1** for a graphical representation). The National Curriculum Framework for School Education (NCF) 2023 emphasises the critical impact of social-emotional development on other developmental domains, including physical, cognitive, and language growth.

Figure 2.1 Process of child development-biological, cognitive and social-emotional processes according to NCF 2023

Genetic and epigenetic factors and material conditions have an impact on a child's body, such as height, weight, and development of the brain.

Biological processes

Cognitive processes

Socioemotional processes
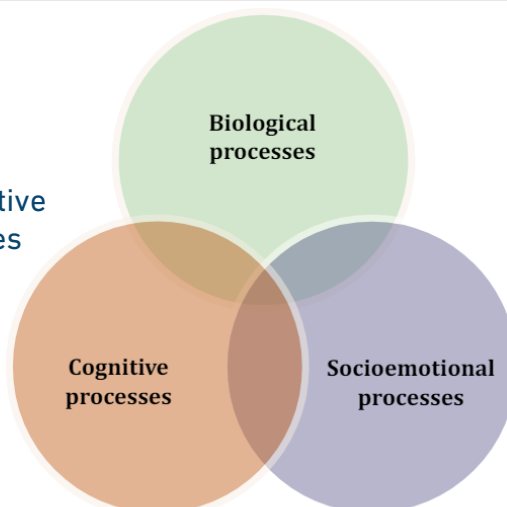
Cognitive experiences and stimulation affect a child's thought processes, intelligence, and use of language.

Socio-emotional experiences and stimulation affect a child's relationships with adults and peers, emotional regulation, and personality.

During infancy, emotions are the primary means of communication between parents and infants, playing a key role in forming parent-child relationships. As children progress to early childhood, their emotional development expands to include self-conscious emotions such as pride, shame, and guilt, alongside a growing awareness of managing emotions to meet social standards. In middle childhood, children develop self-understanding through social and psychological characteristics, learning to regulate emotions and use diverse coping strategies. Adolescence brings complex identity development, with self-esteem often declining, particularly among girls due to societal expectations.

Families play a pivotal role in social-emotional development at various stages. In infancy, the development of attachment through contact comfort and trust is essential. During early childhood, children take emotional cues from family interactions, influencing their emotional security and comfort. As children enter middle childhood, they form strong bonds with peers, though families remain influential in emotional development. However, in adolescence, the influence of peers grows significantly, while the family's impact often diminishes. Despite this, the way families handle conflicts continues to have a crucial effect on adolescents' social-emotional growth.

Peers also play a significant role in social-emotional development. In early childhood, peers provide information and social comparison, helping children distinguish between friends and non-friends, though parents remain primary sources of support in times of stress. In middle childhood, peer relationships deepen, and friendships become vital for emotional development, with children still seeking validation from adults. During adolescence, peer influence peaks, with identity formation, rebellion, and conflict being common. Adolescents prioritise fitting in and gaining confirmation from their peer groups, which significantly shapes their social-emotional landscape.

In the domain of social-emotional development, NCF-2023 identifies different Curricular Goals (CG) for the Foundational stage and the Competencies as shown in **Table 2.1.**

Table 2.1 Curricular goals and competencies in the domain of social-emotional development adapted from NCF-2023.

Social-emotional domains according to NCF 2023		
CG-4 Develops emotional intelligence, i.e., the ability to understand and manage their own emotions and respond positively to social norms	C-4.1	Starts recognising 'self' as an individual belonging to a family and community
	C-4.2	Recognises different emotions and makes deliberate efforts to regulate them appropriately
	C-4.3	Interacts comfortably with other children and adults
	C-4.4	Shows cooperative behaviour with other children
	C-4.5	Understands and responds positively to social norms in the classroom and school
	C-4.6	Shows kindness and helpfulness to others (including animals, and plants) when they are in need
	C-4.7	Understands and responds positively to different thoughts, preferences, and emotional needs of other children

From the literature and reports presented above, there seems to be a scarcity of culturally appropriate standardised self-report measurement for SEL for children in the Indian context.

Because SEL and Life skills are used interchangeably throughout the literature, we find that some SEL tools suitable for the Indian population are observation-based [e.g. Life Skills Assessment Scale (LSAS) (Kennedy et al., 2014)], and these observations are noted mainly by teachers or external observers. Another tool (SELOS) is meant for teachers (Sharma et al., 2022). Considering the definition of SEL for this report, it is essential to develop a self-report SEL-focused scale for children. This scale will have efficient administration and will be culturally sensitive to deal with the coexisting translation challenges and its large-scale execution of potential evaluations in India. This culturally and statistically sound self-report questionnaire in local languages can be helpful for educators to provide a snapshot of children's social-emotional status and develop interventions to improve SEL in schools. This justifies the primary goal of the current study to construct a self-report scale *Children's Scale for Social-emotional Learning*" (CHISSEL) in the Marathi language.

DEFINING SEL AND ITS FRAMEWORK

This report considered four holistic definitions of SEL: CASEL framework, Middle Years Development Instrument, UNESCO and the NCF 2023. The Collaborative for Academic, Social, and Emotional Learning (CASEL) defines SEL as the process through which children and adults develop the skills, knowledge, and attitudes 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 (CASEL, 2003). UNESCO (2020) defines SEL as learning that allows all learners to identify and navigate emotions, practise mindful engagement and exhibit prosocial behaviour for human flourishing towards a peaceful and sustainable planet. Middle Years Development Instrument (2018) affirms the declining SEL development from childhood to adolescence and highlights the need to assess SEL in schools (Thomson et. al., 2018b). For grade 4 the instrument assesses children's optimism, satisfaction with life, self-regulation (short-term and long-term), general self-concept, empathy, prosocial behaviour, depressive symptoms, and anxiety symptoms. Additional social and emotional development for grade 7 MDI include responsible decision-making, self-awareness, perseverance, assertiveness, citizenship and social responsibility. In the Indian context, the National Curriculum Framework (2023) stresses that a child's social-emotional development impacts the other domains of development. Physical, cognitive, and language development is highly influenced by how children feel about themselves and how they are able to express their ideas and emotions. It identifies social-emotional processes as one of the key processes of Child development, the other two being biological processes and cognitive processes.

The two studies presented in this report draw on the CASEL framework, Middle Years Development Instrument (MDI, 2018), NIPUN Bharat Policy (2021) and Pratham's Life Skills Framework (2018) to define social-emotional learning. Life skills and SEL are closely related but have distinct focuses. Danish et al. (2004) define life skills as "*those skills that enable individuals to succeed in the different environments in which they live such as school, home and in their neighbourhoods. Life skills can be behavioural (communicating effectively with peers and adults) or cognitive (making effective decisions); interpersonal (being assertive) or intrapersonal (setting goals)*" (p. 40); whereas SEL focuses on skills, knowledge, and attitudes required to understand and regulate emotions, goal setting, empathy, relationship skills and decision making. It is imperative to understand the difference between life skills and SEL as, colloquially, these terms are used interchangeably. In reality, both are essential for well-rounded development, with life skills encompassing a wider array of competencies, and SEL focusing on the emotional and social facets of personal growth.

The Life Skills framework by Pratham is a set of psychosocial abilities for adaptive and positive behaviours which focuses on the knowledge, skills, and attitudes required to address socioeconomic and gender challenges and enable children to deal effectively with the demands and obstacles of everyday life. NIPUN Bharat (2021) defines competency as "statements that specify what children will know, be able to do, or be able to demonstrate when they have completed or participated in a course or program" (p. 2). In this report, we have created an integrated SEL framework with three core SEL domains based primarily on CASEL and MDI frameworks as they encompass various aspects of SEL. These three domains are explained in detail below:

1

Self-management combined with decision-making (CASEL, 2003; MDI, 2018)

As described by CASEL (2003) self-management is the ability to regulate one's emotions, thoughts, and behaviours effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working toward achieving personal and academic goals. Decision-making, on the other hand, is the ability to make constructive and respectful choices about personal behaviour and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others. This includes identifying problems; analysing situations; solving problems; evaluation, reflection, and awareness of ethical responsibility. Social-emotional development as described by MDI (2018) includes optimism, empathy, happiness, prosocial behaviour, self-esteem, self-regulation, sadness and worries, and responsible decision-making.

2

Relationship skills (CASEL, 2003; MDI, 2018)

As per CASEL (2003), these are the abilities to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed. This includes clear communication; active listening, cooperation/teamwork, resisting inappropriate social pressure, negotiating conflict, seeking and offering help, and establishing and maintaining relationships. MDI (2018) considers these abilities as connectedness encompassing social aspects such as the presence of supportive adults in schools, families, and neighbourhoods, a sense of belonging with peers, and friendships.

3

Social awareness combined with self-awareness (CASEL, 2003)

CASEL (2003) describes it as the ability to take the perspective of and empathise with others from diverse backgrounds and cultures, to understand social and ethical norms for behaviour, and to recognise family, school, and community resources and support. This includes taking the perspective of others from diverse backgrounds and cultures; empathy; understanding social and ethical norms for behaviour, and recognising family, school, and community resources, and support. Self-awareness is seen as the ability to accurately recognise one's emotions and thoughts and their influence on behaviour. The ability to accurately assess one's strengths and limitations and possess a well-grounded sense of confidence and optimism. This includes recognising one's emotions and thoughts, assessing one's strengths and limitations, confidence, and self-efficacy/growth mindset.

Figure 2.2 Domains of SEL and child's environment. Adapted from CASEL (2020).
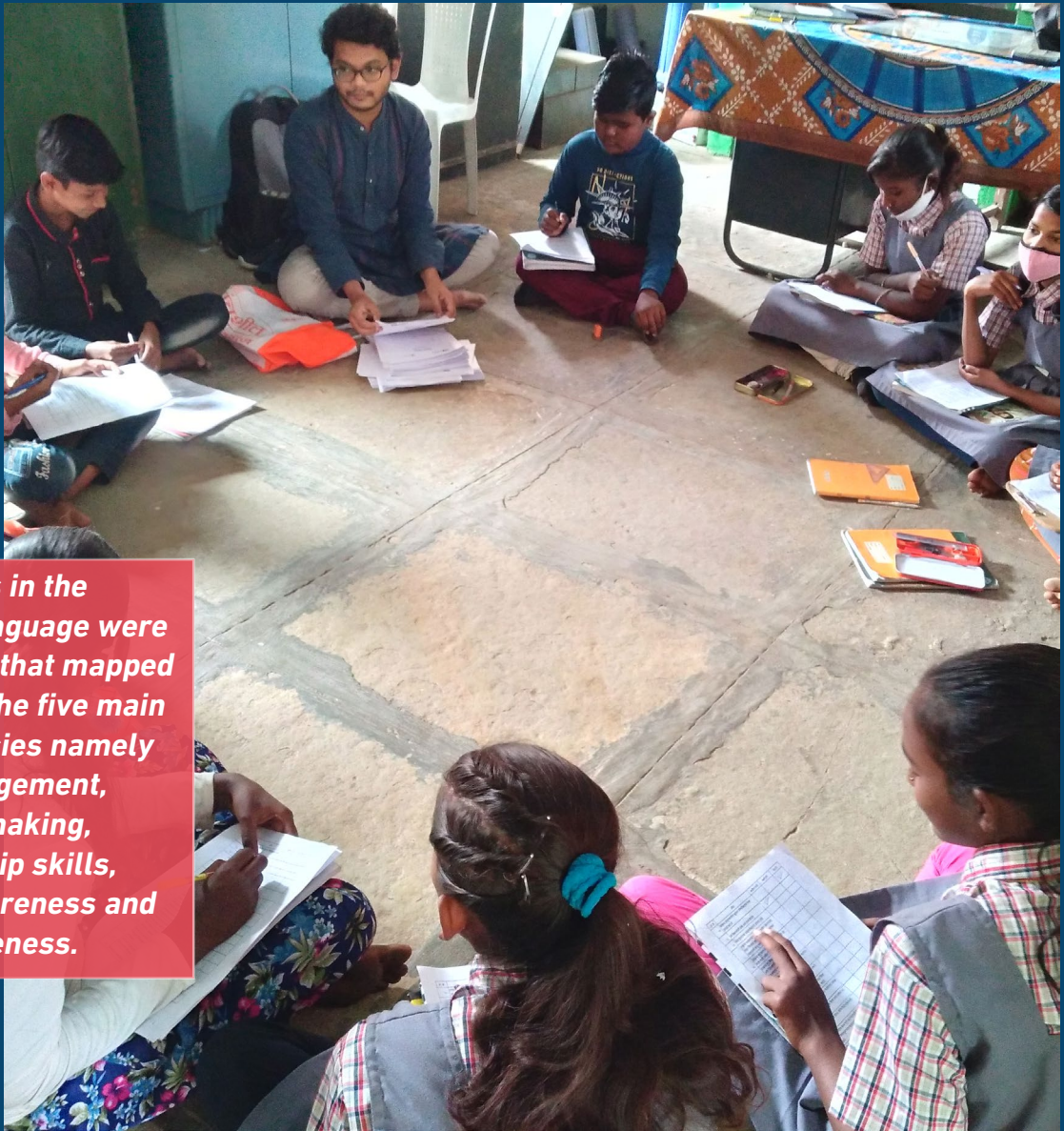
> *... 36 items in the English language were generated that mapped well with the five main competencies namely Self-management, Decision-making, Relationship skills, Social awareness and Self-awareness.*

CHISSEL

3. CHISSEL METHODOLOGY

CHISSEL 1.0 TOOL DEVELOPMENT: THEMATIC GENERATION

The domain of student well-being is vast and overlaps with other psycho-social-emotional areas like life skills, social-emotional learning, personality testing, child and adolescent mental health etc. Multiple scholars have developed frameworks that define these domains along with reliable valid measurement tools. However, upon closer examination of these frameworks, we find many overlaps. We found a lack of reliable measures that can assess SEL in schools. Further, in this context as well, there is a dearth of tools that measure student well-being as a function of social-emotional learning competencies.

CHISSEL 1.0 ITEMS GENERATION

Considering the age of the participants, their backgrounds and the overall objective of the study, the following steps were followed to generate a pool of items:

1) The initial items were drawn from pre-existing tools. As part of this process, a pool of validated and reliable assessment tools mainly originating from the Western literature was identified; which measured the selected competencies among students. The relevant items for each competency were identified and selected for further adaptation. Thus, in the first phase of item generation, 36 items in the English language were generated that mapped well with the five main competencies namely Self-management, Decision-making, Relationship skills, Social awareness and Self-awareness.

2) After this, the items underwent several rounds of review by researchers, psychologists, project members and academic experts. Each tool item was considered independently and qualitatively reviewed for language, validity, and relevance to the competencies chosen. A ranking system (low-medium-high relevance) was developed for the inclusion of an item in the scale. Four experts ranked each of the 36 items for inclusion. 8 items that ranked low were removed from further consideration.

3) A final pool of 28 items (see **Table A.1** in Appendix and **Figure 3.1** for visualisation of domains, sub-domains and items) was finalised after rejecting 8 items. The refined tool was then translated into the regional language Marathi to suit the language proficiency level of participants by academic experts, Language experts and Psychologists to check the relevance of the items in the Marathi language. Each translated item was further reviewed for context-appropriateness and language by project members located across different districts in Maharashtra. Apart from the 28 tool items, the tool also includes 5 questions that will be asked as part of a Focus Group Discussion.

4) 3 items in the domain of self-awareness (items 11, 12 and 13) were decided to be reverse-scored for countering the social desirability and getting honest responses.

5) The sequence of the items was determined by the competencies they were mapped to. Considering the age of the participants for better understanding and flow, all items belonging to one competency were sequenced one after the other (e.g. all 6 items in the self-management competency appeared one after the other). It was assumed that this sequence would avoid any confusion while responding to the items.

Figure 3.1 Domains and subdomains of CHISSEL 1.0, along with individual items.

RESPONSE SCALES: CHISSEL 1.0 & CHISSEL 2.0

For CHISSEL 1.0 experts deliberated whether a 3-point or 4-point Likert scale would be suitable for the target participants. The 3-point Likert scale included options - 'True', 'Somewhat True', and 'Very True', and the 4-point Likert scale included options - 'Always', 'Often', 'Sometimes', and 'Never'. The team saw merit in both response scales and decided to test out both scales during the pilot. The pilot showed that the initial 3-point scale was not easily comprehensible for students. For the initial 4-point scale also the pilot revealed a confusion between 'always' and 'often'. Therefore, finally for CHISSEL 1.0 and 2.0 a 3-point Likert scale was used (1- 'Never'. 2- 'Sometimes', 3-'Always')

Calculation of Competency Index Scores: CHISSEL 1.0 & CHISSEL 2.0

For CHISSEL 1.0 the maximum and minimum scores for each competency were calculated. Cumulatively, for SEL competencies (28 items), the maximum and minimum possible are 84 and 28 respectively. For CHISSEL 2.0 the maximum and minimum possible score for all SEL competencies 33 items [(23 items) & life skills (10 items)] are 114 and 33 respectively. We have defined an Index which normalises the scores to 0 to 1 irrespective of the number of items and have also defined an aggregate competency index. We calculated the Normalised Score and Competency Index as:

Normalised scores (NS) = *(s-1)/2, where s=score for a particular question. NS(min)=0, NS(max)=1.*

Competency Index (CI) = sum of all the normalised scores for the competency/Total number of items in the competency. *CI(min)=0, CI(max)=1.*

Ranking of competencies CI : *0≤ CI ≤0.5 as Very Low ; 0.5≤ CI <0.6 as Low; 0.6≤ CI <0.8 as High; 0.9 ≤ CI <1.0 as Very High*

SAMPLE DETAILS STUDY 1 & STUDY 2

Study 1 CHISSEL 1.0 (2022)

The study was conducted on middle schoolers (*N* = 1647) across the four districts in Maharashtra Akola *(District)*, Nashik *(District)*, Nagpur *(1 Municipal Corporation),* and Pune *(District & 1 Municipal Corporation).* The students were from 6th (751), 7th (733), and 8th (369) grades. The summary on the gender ratio per jurisdiction shows an approximate range of 49% males and 51% females across districts.

Data Collection CHISSEL 1.0

Based on the internal SOP of LFE, tool administrators were trained and informed on the practices to ensure that the necessary sample size as calculated is met. Considering on-day attendance, permissions from School Headmasters, and a timeline to complete the assessments, the actual coverage as per the planned sample is given in **Table 3.1**. The final valid sample for all questions was

Table 3.1 Sample description of CHISSEL 1.0

Jurisdiction	No. of Schools	Total Students Assessed	Valid Responses (%)	Grade 6	Grade 7	Grade 8
Akola	8	382	83.3	156	176	50
Nashik	7	310	81.3	101	107	102
Nagpur	13	386	93	170	170	46
Pune	10	418	93.1	186	175	57
PCMC (Pune)	6	398	82.7	150	153	95
TOTAL	**44**	**1894**	**87**	**763**	**781**	**350**

Study 2 CHISSEL 2.0 (2023)

The sample size per jurisdiction was calculated considering population proportion to size (50%) and a confidence level of 95% for simple random sampling. Further, to best estimate grade-wise results, the overall sample size per jurisdiction was stratified based on the grade-wise student enrolment as available from UDISE data sets shared by our Government partners. The sample sizes were calculated for LFE's program jurisdictions (**Table 4**). The designed sample size (95% Confidence Interval) was 3575 students across the eight jurisdictions in 6th (1496), 7th (1417), and 8th (662) grades.

Data Collection CHISSEL 2.0

Based on the internal SOP of LFE, tool administrators were trained and informed on the practices to ensure that the necessary sample size as calculated is met. Data was collected from eight jurisdictions: Rural and tribal ZP schools from six districts, namely Pune Akola, Nashik, Nagpur, Chandrapur, Sindhudurg, and two urban municipal corporations (Pimpri Chinchwad Municipal Corporation-PCMC, and Nagpur Municipal Corporation- NMC). In this regard, teams were instructed to select schools randomly from their respective jurisdictions. From each jurisdiction between 400-500 students were assessed (see **Table 3.2** for details). In each selected school, students were to be chosen at random, keeping in mind the stratified grade-wise sample numbers as planned. As part of the data collection methodology, each team would cover a minimum of 10 schools per jurisdiction to ensure variability in the data to be collected. Since gender-wise data was not available, teams were instructed to select 50-50 male-female students in each school in line with the CHISSEL 2.0 coverage. However, considering on-day attendance, permissions from School Headmasters, and the timeline to complete the assessments, the actual coverage as per the planned sample is given in **Table 3.2**. The final valid sample was *N* = 3142, comprising 88% of the students sampled.

Table 3.2 Sample description of CHISSEL 2.0

Jurisdiction	No. of Schools	Total Students Assessed	Valid Responses (n(%))	Grade 6 (n (n=valid))	Grade 7 (n (n=valid))	Grade 8 (n(n=valid))
Pune	12	420	405(96%)	200 (189)	188(185)	32(31)
Akola	10	405	347(86%)	172 (142)	147(122)	86(83)
Nashik	18	426	394(92%)	194(178)	175(161)	57(55)
Nagpur	15	539	473(88%)	207(181)	208(176)	124(116)
Chandrapur	16	444	342(77%)	159(123)	172(130)	113(89)
Sindhudurg	23	504	481(95%)	265(250)	239(231)	0(0)
PCMC	8	402	355(88%)	167(141)	142(127)	93(87)
NMC	17	435	345(79%)	132(93)	146(112)	157(140)
TOTAL	**119**	**3575**	**3142(88%)**	**1496(1297)**	**1417(1244)**	**662(601)**
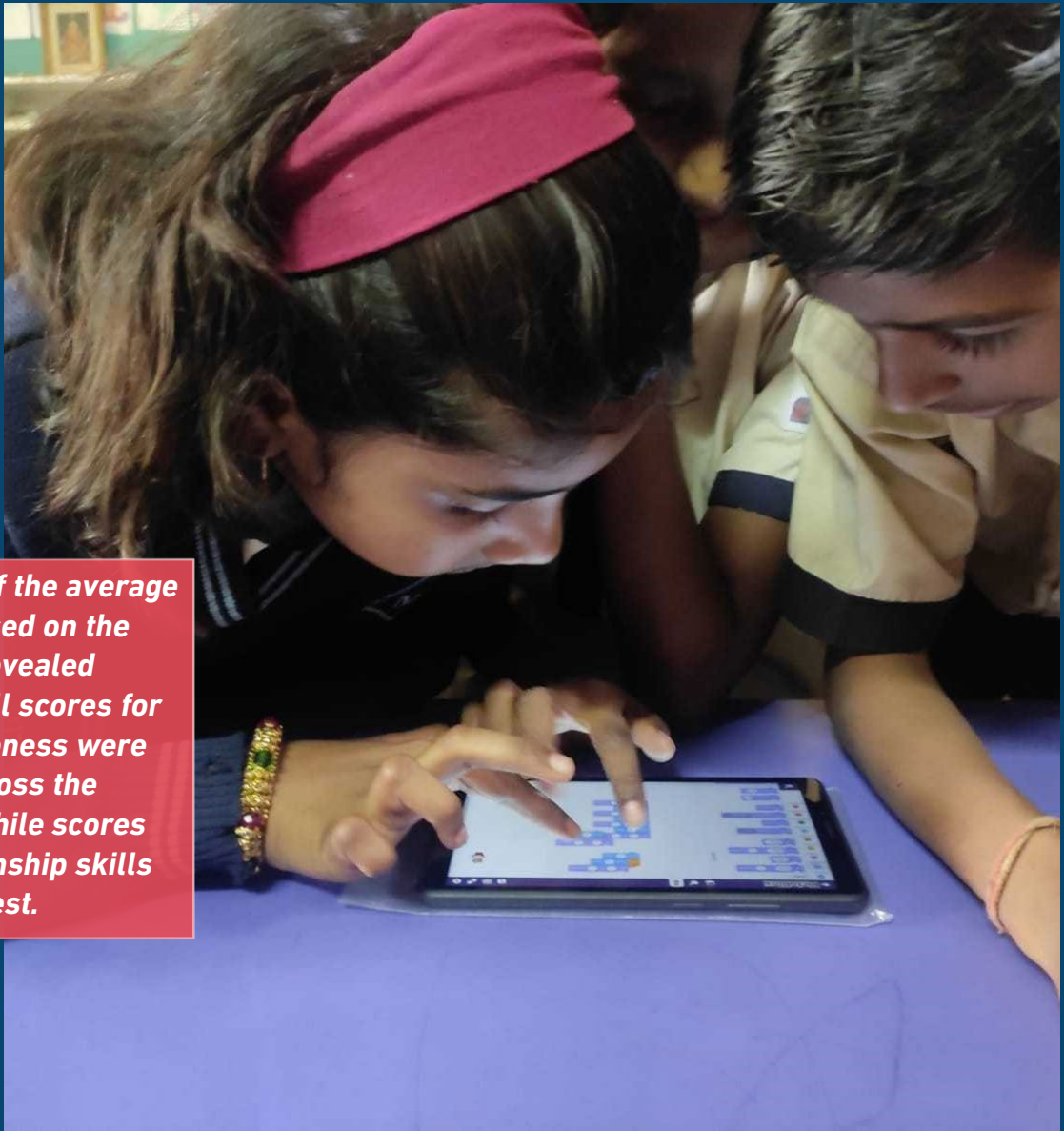
CHILDREN'S SCALE FOR SOCIAL-EMOTIONAL LEARNING

Analysis of the average scores based on the SEL tool revealed that overall scores for self-awareness were lowest across the sample; while scores for relationship skills were highest.

CHISSEL

4. RESULTS AND INTERPRETATIONS

CHISSEL 1.0 : ITEM DEVELOPMENT AND SEL STATUS CHECK

A *Baseline results for CHISSEL 1.0 competencies*

The baseline analysis for CHISSEL 1.0 revealed that overall the sample scored highest on social awareness and relationship skills and lowest on self-awareness. This could mean that the children showed comparatively high empathy towards others and were highly aware of their social surroundings such as the school environment, family support, and neighbourhood/community. Lower scores on self-awareness imply that the children were less aware of their emotions and capacities.

Self-awareness included statements about their self-acceptance, self-esteem (how worthy they think of themselves), self-efficacy (belief about what they are capable of doing), and their capacity to self-reflect.

Table 4.1 CHISSEL 1.0 Average Competency Index

SEL Competency	Total (M+F)	Male	Female	Gap (Female-Male)
Self-management	0.72	0.71	0.72	0.01
Decision-making	0.64	0.63	0.64	0.01
Self-awareness	0.57	0.57	0.56	0.01
Social awareness	0.76	0.76	0.76	0
Relationship Skills	0.75	0.73	0.76	0.03

There is wide variation in the values of the variation in the CI of each domain. In **Figure 4.1,** we show the box plot of CI**.** The median value of self-awareness is the lowest, while that of social awareness is the highest. The decision-making shows wide variation in the values.
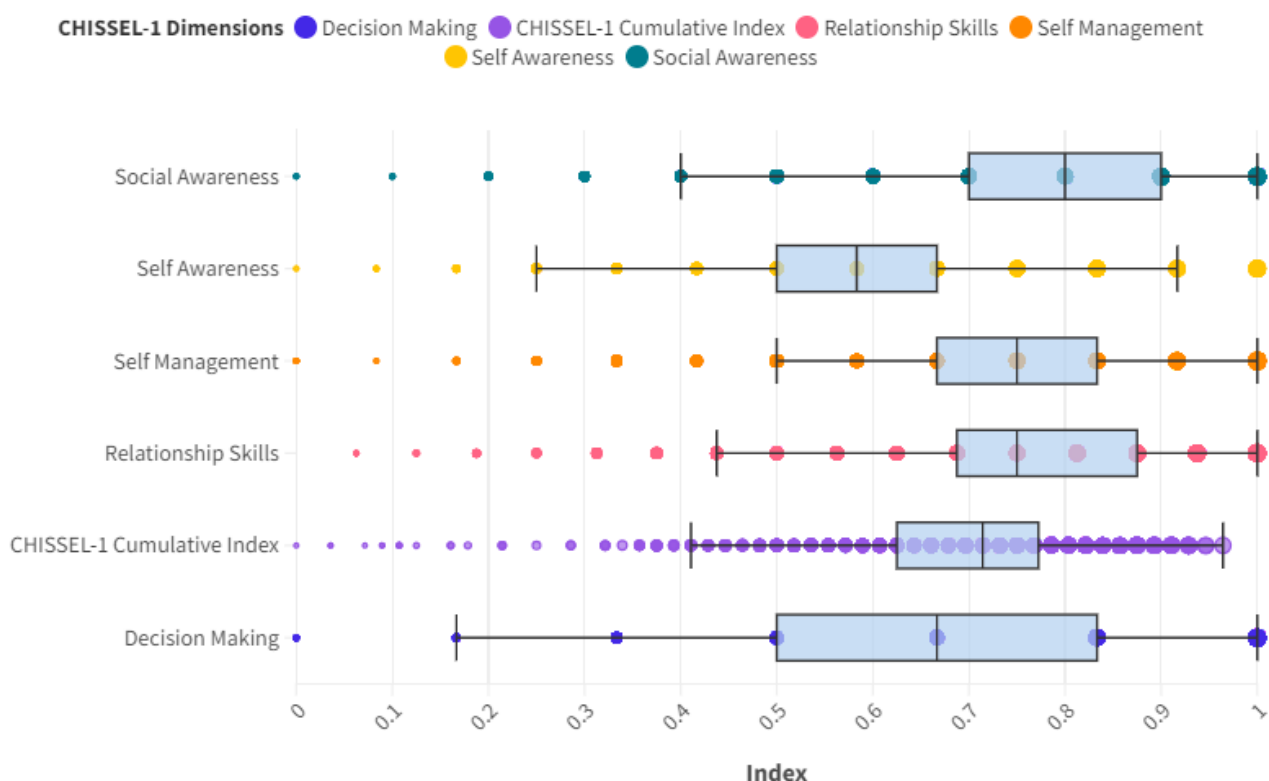
Figure 4.1 Box plot showing median and spread of values of SEL domains in CHISSEL 1.0.

B *Reliability Analysis* CHISSEL 1.0 showed acceptable reliability Cronbach's alpha (α = 0.71) in the first pilot. Analysis of the average scores based on the SEL tool revealed that overall scores for self-awareness were lowest across the sample; while scores for relationship skills were highest.

C **Exploratory Factor Analysis** A principal component analysis was conducted on the 28 items with oblique rotation method (direct oblimin) (See **Table A.2** in Appendix). Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.80, above the commonly recommended value of 0.600. An initial analysis was run to obtain eigenvalues for each factor in the data. Five factors had eigenvalues over Kaiser's criterion of 1 and in combination explained 30.73% of the variance. 5 factors were retained because of the large sample size. The five-factor pattern matrix showed a huge shuffle of items as compared to our initial idea. When this happens, it statistically means that the sample views the items in a different light than how researchers conceived them initially. In the case of this tool, the items may not belong to the allocated SEL domains which reduces the overall efficacy of the tool. The five factor loadings from EFA were accepted and items that load on the same factor were then grouped and renamed. Factor 1 was renamed as *academic awareness*, factor 2 was renamed as *self-awareness*, factor 3 to *emotional development*, factor 4 to *social awareness,* and factor 5 to *decision-making and self-management*. See **Figure 4.2** for a visual summary of CHISSEL 1.0 EFA.

CHISSEL-1.0 Factor Analysis summary
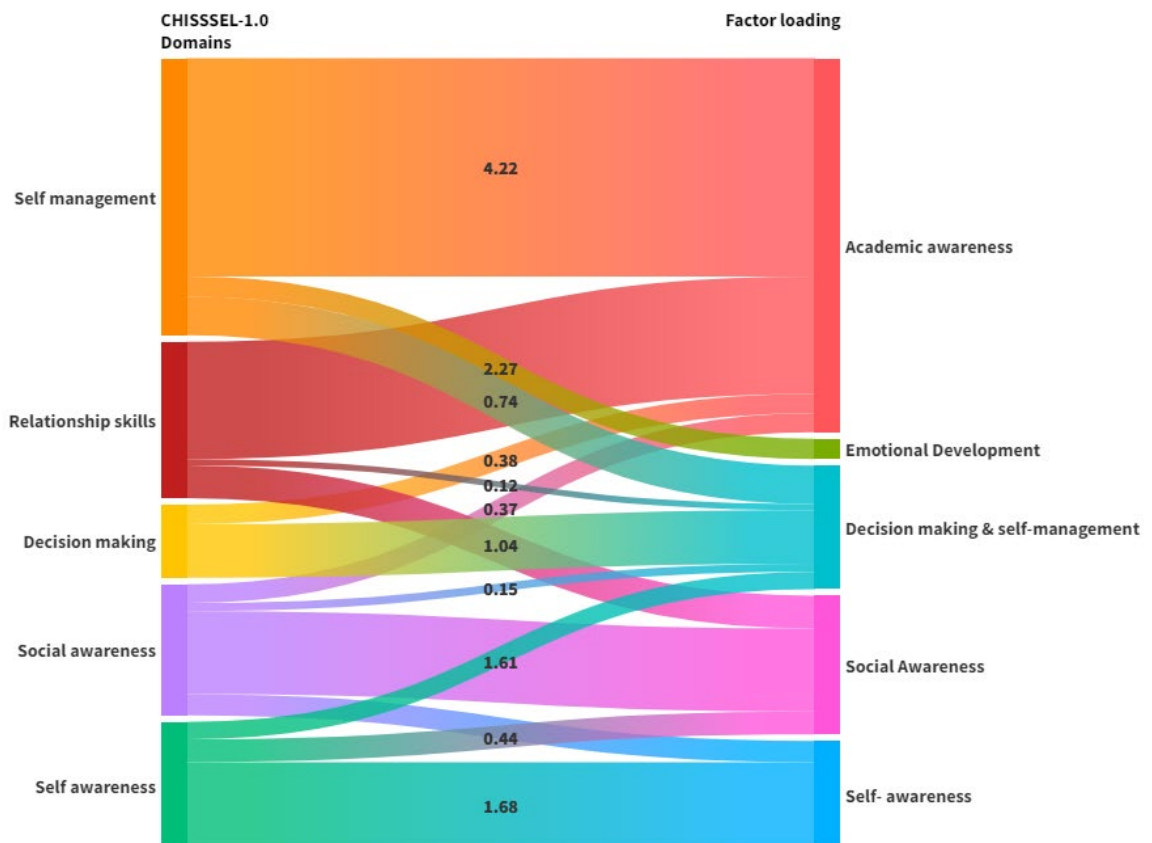
Source: Analysis by FLAME Team

Figure 4.2 Flow diagram illustrating factor loading of different CHISSEL 1.0 domains after Exploratory factor Analysis (EFA). Five factors were identified after EFA and were renamed as above.

The CHISSEL 1.0 thus took the first positive step in creating a tool to measure SEL in the Indian context. The analysis showed that the tool requires further revisions and item analysis along with statistical standardisation procedures to make it more robust. The baseline analysis revealed the current status of the children in Government schools in Maharashtra.

Mainly 'self-awareness' as a competency can be considered as an improvement area for children. Programs at the school level such as mindfulness training, self-reflective exercises, and identifying emotional states shall aid in enhancing children's self-awareness. SEL in students needs to be prioritised at a structural level and at the individual level. This study also served as a basis for a second study and tool refinement.

CHISSEL 2.0: TOOL REFINEMENT

A second round of data collection was planned for Study 2 to test the changes to the CHISSEL 1.0. The refined tool was based on a framework seen in **Figure 4.3**. After the EFA analysis of CHISSEL 1.0, we used forward scoring for all the items in CHISSEL 2.0, we retained 23 items (removed 5 items showing low inter-item correlations) and accepted 5-factor categories which were quite different from the CASEL framework. This is justified considering the existing cultural differences when a foreign framework is adapted to the Indian context. The results also show how the sample population viewed the items and responded based on their own perceptions of the school and family environment. Furthermore, for addressing the life skill competencies, 3 life-skill domains of leadership potential, digital literacy and problem-solving behaviour from Pratham Life Skill Framework (2018**)** were considered. 10 more items based on these three life-skill domains were generated, translated into Marathi language and then added to the CHISSEL 2.0 version making the tool comprising 23 SEL items and 10 Life skills items (See Appendix **Table A.2** for 23 SEL items). This framework is proposed based on the reliability analysis and EFA conducted for Study 1. The final 33 items for CHISSEL 2.0 are given in **Table 3**. The following section presents the details of Study 2.
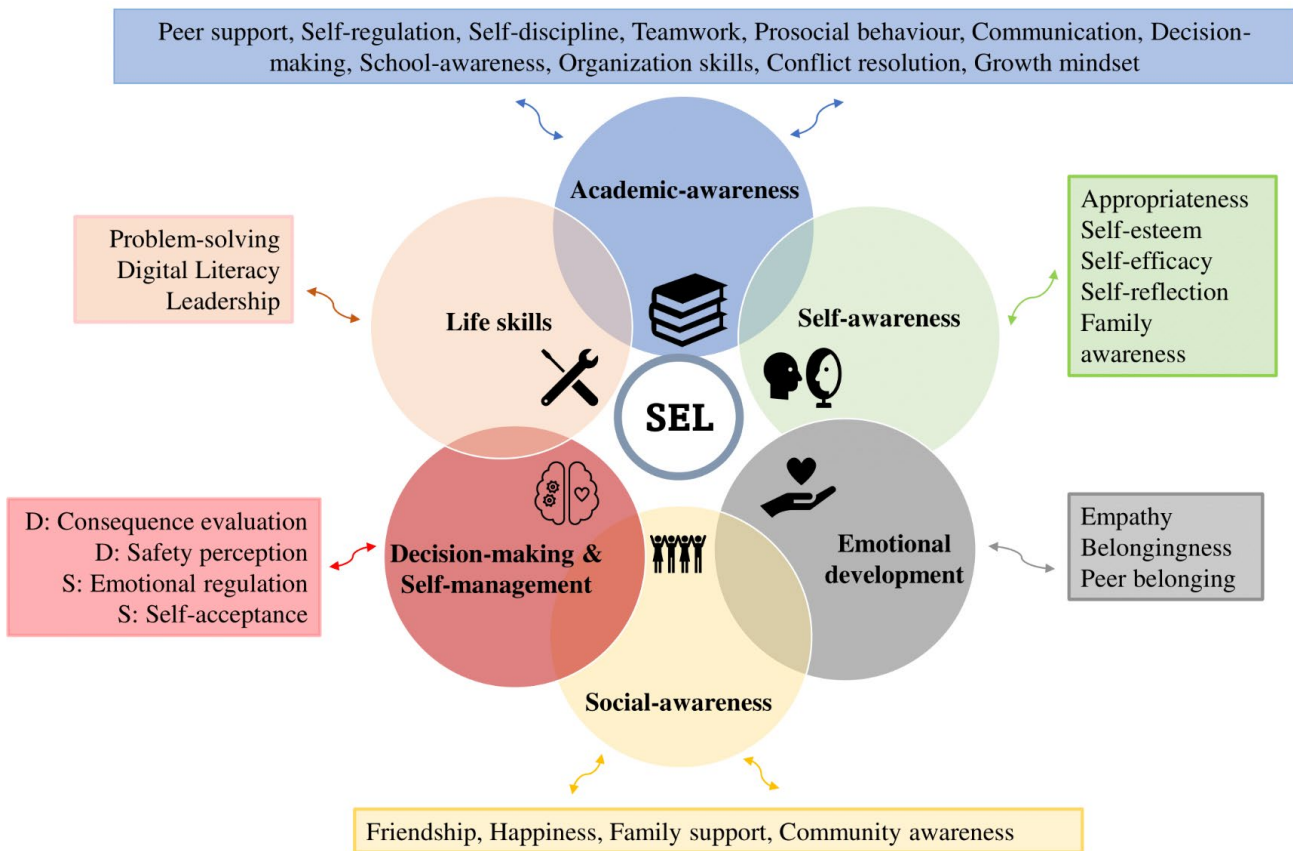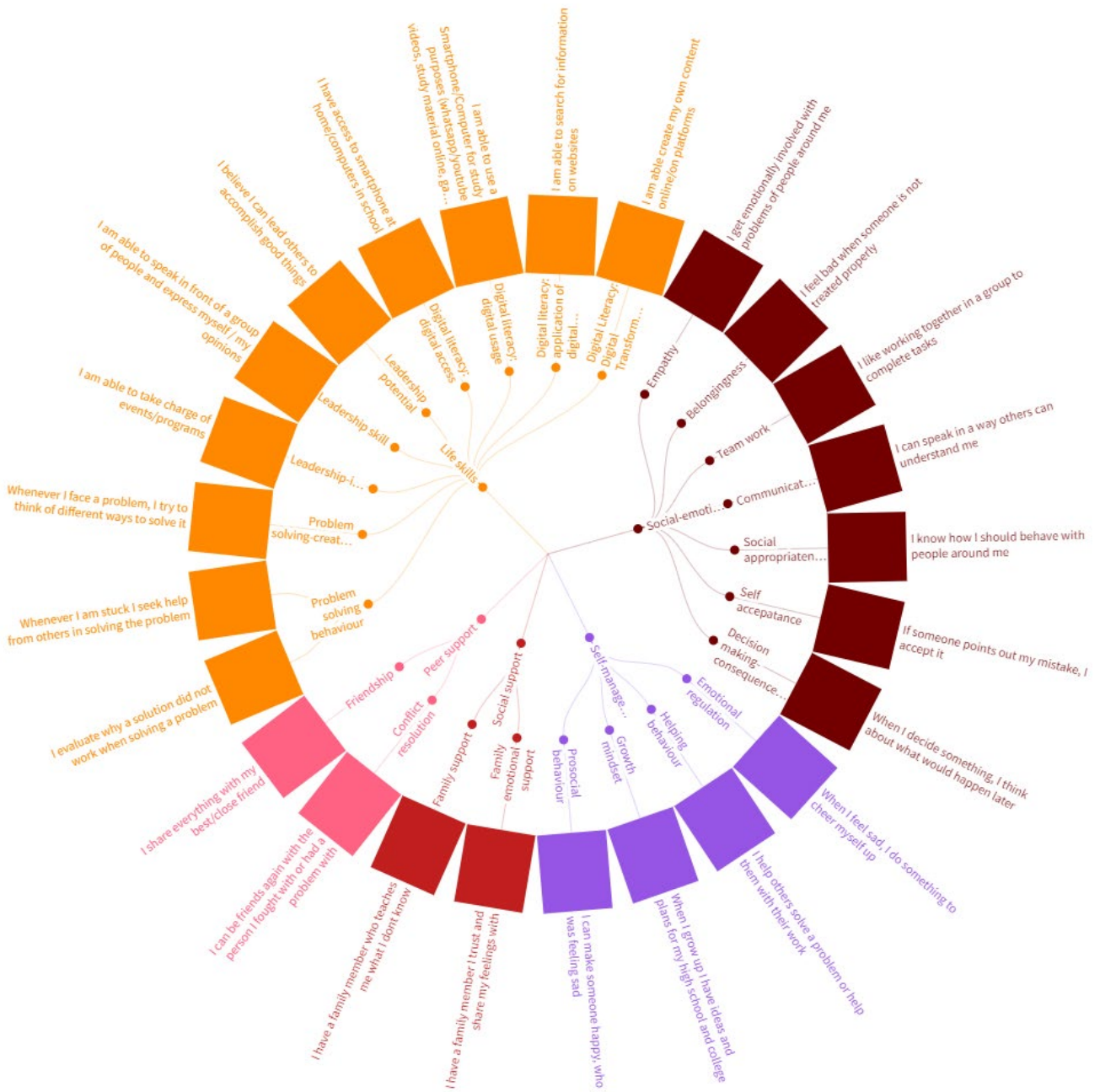

Figure 4.3 CHISSEL 2.0 Proposed framework for tool development

Developed by Leadership for Equity and FLAME University

Figure 4.4 Domains and subdomains of CHISSEL 2.0, along with individual items.

Table 4.2 CHISSEL 2.0 items after EFA and inclusion of life skills domein

Item no.	Domain	Sub-domain	Item	Marathi Translation
1	Academic awareness	Peer support	I help others solve a problem or help them with their work	मी इतरांना त्यांच्या समस्या सोडवण्यास किंवा त्यांना त्यांच्या कामात मदत करतो/ करते.
2		Self regulation	I am able to complete tasks (school work, school activities, play activities) I have started	मी सुरु केलेले काम (शाळेतील उपक्रम, गृहपाठ , खेळ) पूर्ण करतो/करते.
3		Self discipline	I am able to do things (attend school, finish homework, finish my meals, play) on time	मी माझी कामे वेळेत करतो/करते (शाळेत वेळेवर पोहोचणे, गृहपाठ पूर्ण करणे, जेवण पूर्ण करणे, खेळणे).
4		Growth mindset	When I grow up I have ideas and plans for my high school and college	मोठे झाल्यावर हायस्कूल व कॉलेजमध्ये काय करायचे याबद्दल माझ्या कल्पना व योजना आहेत.
5		Prosocial behaviour	I can make someone happy, who was feeling sad	मी एखाद्या दुःखी व्यक्तीला आनंदी करू शकतो/शकते.
6		Team work	I like working together in a group to complete tasks	मला गटामधील काम पूर्ण करण्यासाठी गटात मिळून मिसळून काम करायला आवडते.
7		Communication	I can speak in a way others can understand me	इतरांना समजेल अशा प्रकारे मी बोलू शकतो/शकते.
8		Conflict resolution	I can be friends again with the person I fought with or had a problem with	जरी मी एखाद्या व्यक्तीशी भांडलो/भांडले तरी तिच्याशी मी पुन्हा मैत्री करू शकतो/शकते.
9		Decision making	I gather and make sense of different types information whenever I need to make an important choice or decision	जेव्हा मला महत्त्वाची निवड किंवा निर्णय घ्यायचा असतो, मी त्यासंदर्भातील माहिती गोळा करतो / करते आणि ती माहिती समजून घेतो / घेते.
10	Self awareness	Social appropriateness	I am confused about how I should behave with people around me	माझ्या आजूबाजूच्या लोकांशी मी कसे वागावे हे मला समजते.
11		Self efficacy	I feel I do not work hard enough to do well at school	मला असे वाटते की मी शाळेत यशस्वी होण्यासाठी पुरेसे प्रयत्न करतो/करते.
12		Family awareness	I have a family member I trust and share my feelings with	माझ्या कुटुंबामध्ये माझे विश्वास असलेले कोणीतरी आहे आणि मी माझ्या मनातलं त्यांच्याशी बोलू शकतो/ शकते.
13	Emotional development - empathy	Empathy	I get emotionally involved with problems of people around me	मला इतरांच्या समस्यांबद्दल सहानुभूती आहे.
14		Belongingness	I feel bad when someone is not treated properly	एखाद्याला चुकीची वागणूक दिली जात असेल तर मला वाईट वाटते.
15		Peer belonging	I feel bad when someone does not have what I have	माझ्याजवळ असलेल्या गोष्टी जर समोरच्या जवळ नसतील तर मला वाईट वाटते.
16	Social awareness	Friendship quotient	I share everything with my best/close friend	मी माझ्या जवळच्या मित्र/ मैत्रिणीशी सर्व काही बोलतो/ बोलते.
17		Community awareness	I have someone (outside my school and family) who cares about me and listens to me when I need them	शाळेबाहेर आणि कुटुंबाबाहेर माझी काळजी करणारे कोणीतरी आहे आणि मला त्यांची गरज पडल्यावर, ते माझे ऐकून घेतात.
18		Family support	I have a family member who teaches me what I don't know	माझ्या कुटुंबामध्ये अशी एकतरी व्यक्ति आहे जी मला काही नवीन शिकण्यास मदत करते.
19	Decision making & Self management	Decision making: Consequence evaluation	When I decide something, I think about what would happen later	जेव्हा मी काही ठरवतो/ठरवते मी त्याचे परिणाम काय होतील याचा विचार करतो/करते.
20		Self Management: Emotional regulation	When someone teases me and makes me angry, I can stay calm and don't react immediately	मला चिडवले व राग आणला तरी मी शांत राहु शकतो/ शकते व लगेच त्यावर काही करत व म्हणत नाही.
21		Self management: Self acceptance	If someone points out my mistake, I accept it	माझी चूक कोणी लक्षात आणून दिली तर मी ती मान्य करतो/करते.
22		Decision making: Safety perception	I can say 'no' to do wrong things, if someone asks me to do them	जर कोणी मला चुकीच्या किंवा घातक गोष्टी करण्यास सांगितले तर मी 'नाही' म्हणू शकतो/शकते.
23		Self Management: Emotional regulation	When I feel sad, I do something to cheer myself up	जेव्हा मला वाईट वाटते किंवा मी दुःखी होतो/ होते तेव्हा मी आनंदी वाटण्यासाठी काहीतरी करतो/करते.
24	Life skills	Problem solving behaviour	I evaluate why a solution did not work when solving a problem	अडचण सोडवताना उपाय का काम करत नाही याचे मी मूल्यांकन करतो/करते
25		Problem solving- creative thinking	Whenever I face a problem, I try to think of different ways to solve it	अडचणीत असताना मी वेगवेगळ्या पद्धतीने अडचण सोडवण्याचे प्रयत्न करतो/करते
26		Problem solving behaviour	Whenever I am stuck I seek help from others in solving the problem	जेव्हा मी अडकतो, तेव्हा मी अडचण सोडवण्यासाठी इतरांची मदत घेतो/घेते
27		Leadership initiative	I am able to take charge of events/programs	मला कोणत्याही कार्यक्रमाची जबाबदारी सांभाळायला जमते
28		Leadership skill	I am able to speak in front of a group of people and express myself / my opinions	मी लोकांसमोर बोलू शकतो/शकते आणि माझे मत मांडू शकतो/शकते
29		Leadership potential	I believe I can lead others to accomplish good things	मला विश्वास वाटतो की, मी चांगले काम पूर्ण करण्यासाठी इतरांचे नेतृत्व करु शकतो/शकते
30		Digital literacy: Digital access	I have access to smartphone at home/computers in school	मला कॉम्प्युटर/स्मार्टफोन वापरण्याची संधी मिळते
31		Digital literacy: Digital usage	I am able to use a smartphone/computer for study purposes	मला अभ्यासाला कंप्युटर/स्मार्टफोन वापरायला जमते (WhatsApp/YouTube विडिओ, e-साहित्य, भाषा व गणितासाठी खेळ)
32		Digital literacy: Digital usage	I am able to search for information on websites	वेबसाइट्सवर माहिती कशी शोधायची हे मला जमते
33		Digital Literacy: Digital Transformation	I am able create my own content online/on platforms (e.g. in Word, Powerpoint, Videos etc)	मी एखादे ऑनलाइन साहित्य किंवा एखाद्या प्लॅटफॉर्मवर साहित्य निर्मिती करु शकतो/शकते. (उदा. वर्ड, पॉवर पॉईंट, व्हिडीओ इत्यादी.)

RESULTS CHISSEL 2.0

The results section provides findings regarding the tool development process and average baseline competency scores for the sample. Once the data was collected, it was thoroughly checked for missing values and such responses were excluded. Data was cleaned and tested for reliability. To understand the gender differences, independent *t*-tests were used and to understand the efficacy of CHISSEL factors were extracted using EFA and CFA was used to finalise the tool items. A competency index score was calculated for all domains of SEL and life skills to assess the student's current levels of competencies. We summarise the findings below:

I. Tool Development Analysis

A **Reliability analysis** was conducted using Cronbach Alpha. For 33 items (SEL & Life skills) the (α = 0.75) which is higher than the first study conducted using CHISSEL 1.0 (α = 0.71). Including 10 life skills items improved the reliability of CHISSEL 2.0.

B **Exploratory Factor Analysis (EFA) Summary:**

- *Method*: Principal component analysis with oblimin rotation conducted on 23 SEL items for SEL domains namely academic awareness, self-awareness, emotional development, social awareness and decision-making & self-management excluding 10 life skills items [See Appendix **Table A.3 and A.4** for details].

- *Sampling Adequacy*: Verified by Kaiser-Meyer-Olkin (KMO) measure = 0.83 (well above the acceptable limit of 0.5).

- *Significance*: Bartlett's test is significant (X^2 = 5075.768, df = 253, p < 0.001).

- *Factors Identified*: Four factors with eigenvalues over 1, explaining 15.6% of the variance.

- *Justification*: We retained four factors due to the large sample size and complexity of social-emotional learning.

- *Factor Shuffle*: Significant reshuffling of items compared to previous EFA, indicating a different perception of items by the sample.

- *Renamed Factors* :
  Factor 1: Social-emotional development
  Factor 2: Social support
  Factor 3: Self-management
  Factor 4: Peer support

See **Figure 4.5** for a visual summary of the EFA for CHISSEL 2.0

CHISSEL-2.0 Factor Analysis summary
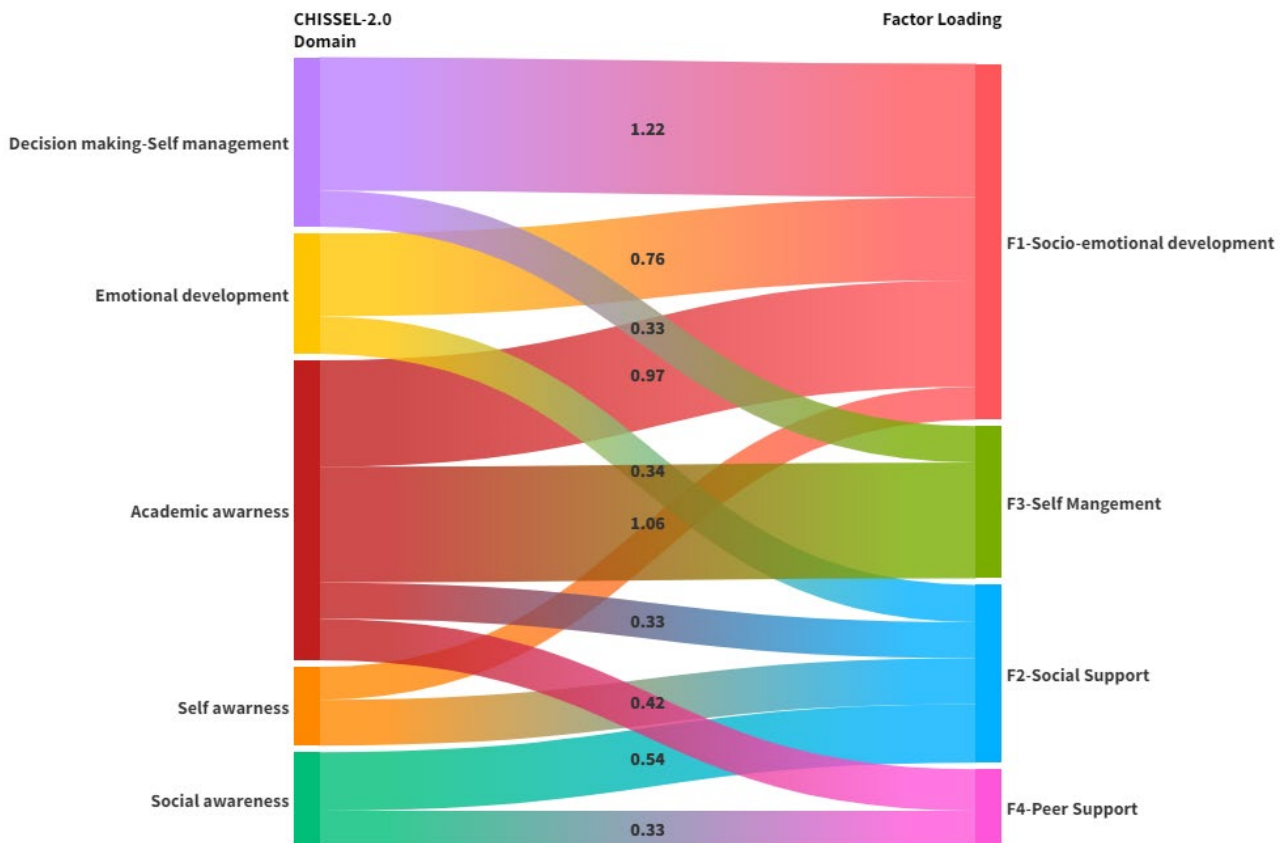
Source: Analysis by FLAME Team

Figure 4.5 Flow diagram illustrating factor loading of different CHISSEL 2.0 domains after Exploratory factor Analysis (EFA). In this round, the five factors of CHISSEL 1.0 (see **Figure 4.2**) were further reduced to four factors and renamed as above.

C *Confirmatory Factor Analysis (CFA)* was conducted on 15 items from SEL domains (excluding life skills) after further removal of 8 items which showed very low inter–item correlations. CFA helped measure the efficacy of the tool, which improves the understanding of the number of valid factors and their specific degree of relationship. CFA confirmed that variables fit a particular pattern or cluster to form a certain dimension according to theory (McDonald, 1999; Fabriger & Wegner, 2012). In the case of CHISSEL 2.0 items, it validated the items fitting specific factors. Furthermore, it tested the item loadings based on the framework used for tool development .

Table 4.3a CFA Chi-square test

Model	X^2	df	p
Baseline model	2712.918	105	
Factor model	359.86	84	< .001

Table 4.3b CFA Model fit measures

Metric	Value
Comparative Fit Index (CFI)	0.89
Root mean square error of approximation (RMSEA)	0.032
RMSEA 90% CI lower bound	0.029
RMSEA 90% CI upper bound	0.036
RMSEA *p*-value	1
Standardised root mean square residual (SRMR)	0.026

Tables 4.3a and 4.3b above present the actual values for the CFA conducted for CHISSEL 2.0 and these values are acceptable. Conclusively, based on the EFA [see **Table A.3** Appendix] and CFA analysis, we removed 8 items originally from the CHISSEL 1.0 (23 items) leading to CHISSEL 2.0 comprising 15 items for SEL and 10 items for life skills, so a total of 25 items (See **Table A.5** in Appendix for details). The four-factor loadings from CFA were thus accepted and items that load on the same factor were then grouped and the factor renaming from EFA was accepted. Factor 1 *social-emotional development* has 7 items, Factor 2 *social support* has 2 items, Factor 3 *self-management* has 4 items, and Factor 4 *peer support* has 2 items.

II. Baseline results for CHISSEL 2.0 competencies

A CHISSEL Competency Index

In the survey analysis, each response was coded for each question on a scale of 1 to 3 (never=1, sometimes=2, always=3) and competency index scores were calculated. **Table 4.4**. shows the total CHISSEL competency index and also indices based on gender. Overall for all domains, we found that females scored higher than males except for life skills. Social awareness and academic awareness are comparatively well-developed in the sample. Digital literacy is comparatively less developed. The gender differences seen in competency indices were further confirmed by *t*-tests (refer to **Table 4.5**).

Table 4.4 CHISSEL 2.0 Average Competency Index

SEL Dimension	Female	Male	Total (Male+Female)	Gap (Female-Male)
Academic Awareness	0.792	0.771	0.781	0.021
Self Awareness	0.722	0.701	0.712	0.021
Emotional Development	0.755	0.709	0.732	0.046
Social Awareness	0.803	0.789	0.796	0.014
Decision Making	0.666	0.648	0.657	0.017
Life Skills (LS total)	0.674	0.695	0.685	-0.021
LS-Problem Solving	0.72	0.713	0.717	0.008
LS-Leadership Skills	0.707	0.701	0.704	0.005
LS-Digital Literacy	0.615	0.678	0.647	-0.063
CHISSEL -2 Index	**0.733**	**0.722**	**0.728**	**0.011**

Going beyond the mean, **Figure 4.6**, shows the variation of CI for each domain. Similar to CHISSEL 1.0, decision-making shows the largest variation, followed by leadership and digital literacy showing a wide variation.

Children's Scale for Social-emotional Learning (CHISSEL)-2
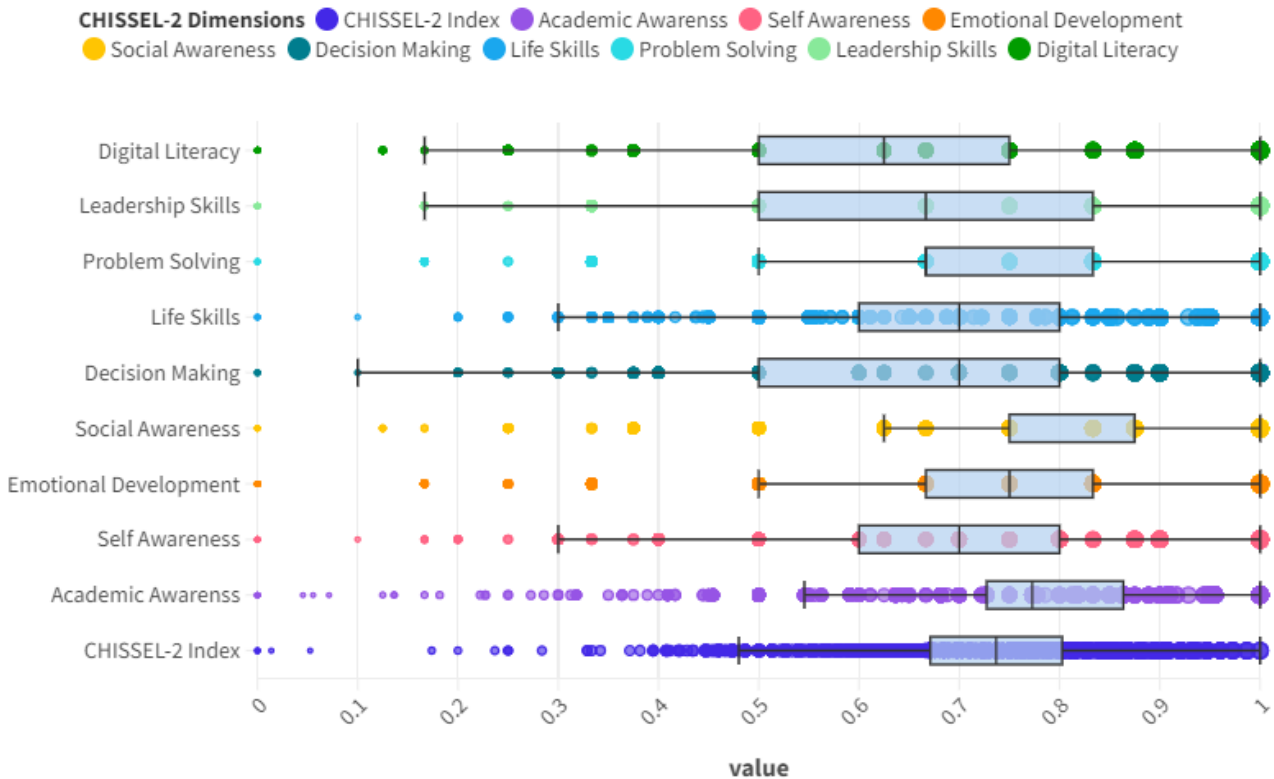
Source: Developed by Leadership for Equity and FLAME University, Pune; 2024

Figure 4.6 Box plot showing the median and spread of values of different domains in CHISSEL 2.0.

B *Independent t-tests* for all domains were conducted based on gender representation with 1799 females (50.32%) and 1776 males (49.67%). In **Figure 4.7**. shows differences for all SEL domains and **Table 4.6** shows SEL domain-wise significant differences for males and females.

CHISSEL-2.0: Gender Gap in Indicators
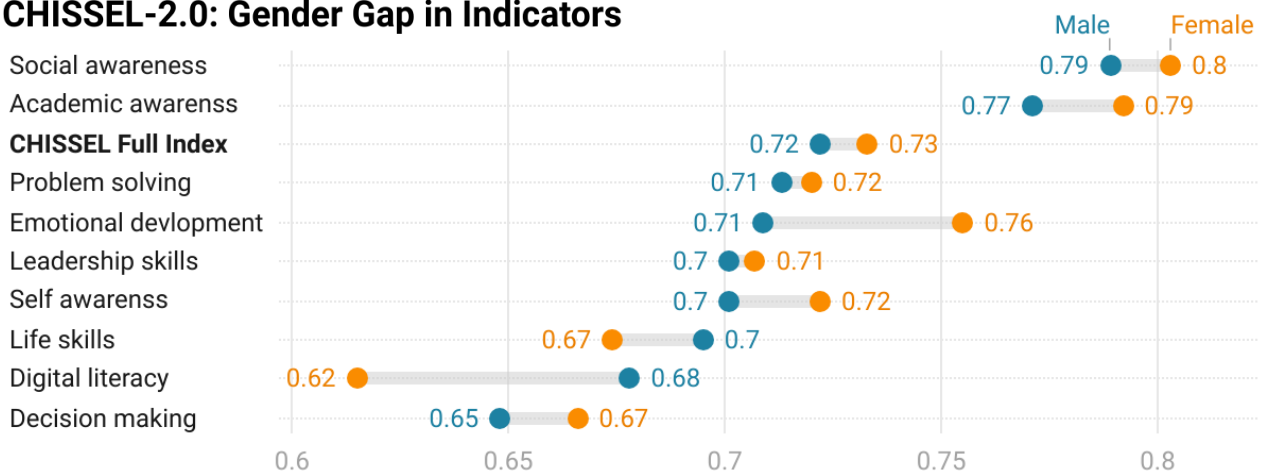
Chart: Shivakumar Jolad • Source: LFE • Created with Datawrapper

Figure 4.7 CHISSEL 2.0 Gender Differences (independent *t*-tests)

Table 4.5 CHISSEL 2.0 *t*-tests on Gender Differences

Dimension	*t*-value	*df*	*p*-value	Implications based on scale items
Academic Awareness	-4.872	3525.5	< .001	Female participants are better able to complete tasks at hand, work in teams, understand what is expected from them, can communicate well as compared to males.
Self-awareness	-4.5527	3540.5	< .001	Female participants are more likely to be aware of themselves than males. Females have slightly more clarity of how to behave in situations and are better able to self-reflect.
Emotional development	-6.7694	3563.1	< .001	Female participants are more likely to be empathetic towards others as compared to males. They are more likely to be involved in problems of others.
Life Skills (LS total)	4.5129	3567.3	< .001	Male participants have better life skills (leadership, digital literacy, problem-solving) as compared to females.
Digital Literacy (LS)	8.9196	3559.1	< .001	Female participants have lower digital literacy skills compared to male participants.
Social Awareness	-2.6427	3566.2	< .001	Female participants are more sociable (sharing with friends, seeking help from family members for studies) than males.
CHISSEL 2.0 - Full Index	**-3.0949**	**3534.6**	**< .001**	**Female participants are more sensitive to others being mistreated.**

CHISSEL 2.0: SEL Domains by District/Jurisdiction
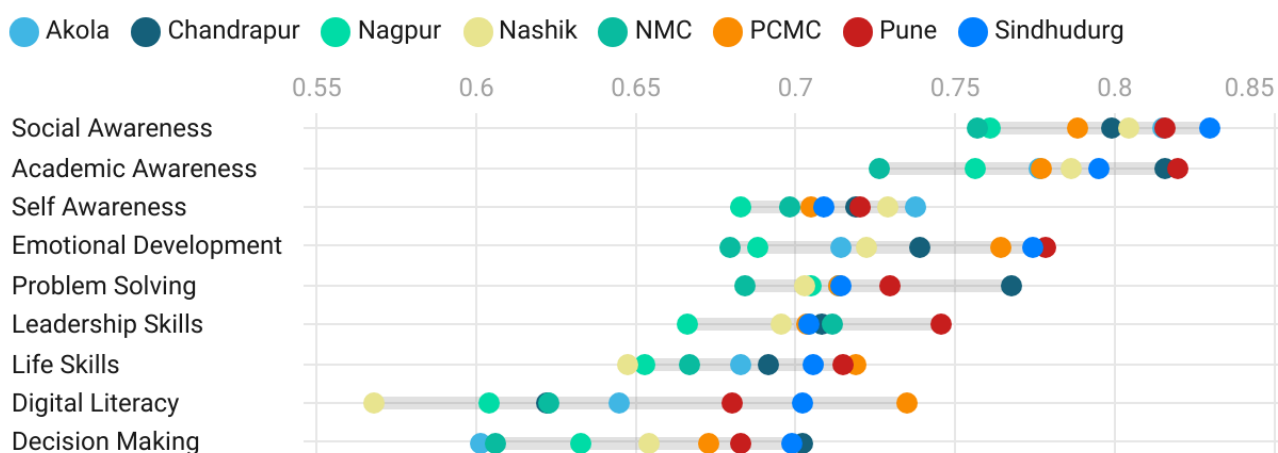
Source: Leadership for Equity (LFE)-Primary survey 2023 • Created with Datawrapper

Figure 4.8 CHISSEL 2.0 Domains Index by District/Jurisdiction

For a better understanding of the status of SEL we analysed the data based on district or administrative jurisdiction. Overall, the competency indices for CHISSEL 2.0 across eight jurisdictions show hardly any differences in the average scores. In **Table 4.8**, we show the average competency indices for all the CHISSEL competencies. It was quite surprising that the sample belonged to schools in rural and urban areas and yet the competency levels are similar. To see if there are any significant differences one-way ANOVA was conducted which revealed no significant differences among the competency indices across jurisdictions.

CHISSELS 2.0: SEL Domains by Grade

● Grade 6 ● Grade 7 ● Grade 8
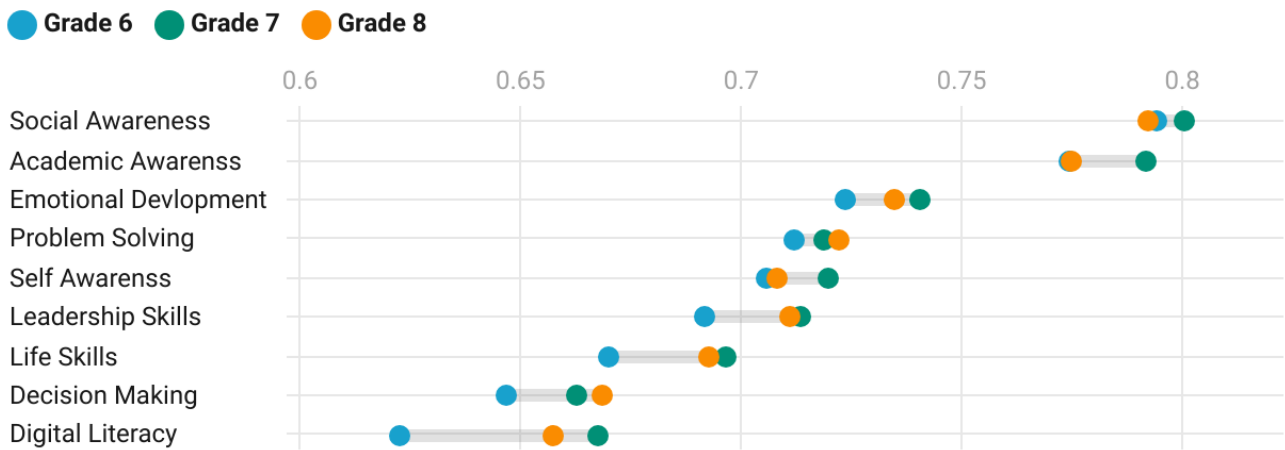
Source: Leadership for Equity (LFE)-Primary survey 2023 • Created with Datawrapper

Figure 4.9 CHISSEL 2.0 Domains Index by Grades

Overall, the competency indices for CHISSEL 2.0 across grades show only minor differences in the average scores (See **Figure 4.9**). The decision-making ability and digital literacy seem to be the least developed as compared to other domains across the sample. Whereas, social awareness seems to be highly developed as compared to other domains. Considering the sample belongs to 6th, 7th, and 8th grades, the students fall in a similar age group showing fewer differences. One-way ANOVA was conducted to compare the effect of grades on all competency indices. Comparisons were made among 6, 7, and 8 graders and the total CHISSEL index, SEL 5 domains, and 3 sub-domains of Life skills. For some indices namely academic awareness, social awareness, emotional development, and problem–solving (a subdomain of life skills) no significant differences were found. **Table 4.6** shows a significant effect of grades for the following CHISSEL competency indices:

Table 4.6 CHISSEL Competency Indices significant differences (One–way ANOVA)

Dimension	*F*-ratio	*df*	*p*-value	Eta squared (η^2)	Post Hoc Test Tukey's HSD
Self-awareness	4.05	3568	0.017	0.006 (small effect)	7th graders were significantly higher in self-awareness than 6th graders ($p < 0.01$) and 8th graders ($p < 0.5$).
Decision making	4.69	3562	0.009	0.007 (small effect)	6th graders were significantly lower in decision making than 7th ($p < 0.5$) and 8th graders ($p < 0.5$).
Life Skills (LS total)	14.25	3568	<.001	0.008 (small effect)	6th graders were significantly lower in life skills than 7th ($p < .001$) and 8th graders ($p < 0.01$).
Leadership Skills	4.95	3562	0.007	0.003 (small effect)	6th graders were significantly lower in leadership skills than 7th ($p < 0.01$) and 8th graders ($p < 0.01$).
Digital Literacy (LS)	17.24	3561	<.001	0.017 (small effect)	7th graders were significantly higher in digital literacy than 6th graders ($p < 0.001$) and 8th graders ($p < 0.5$).

High scores on relationship skills show that students feel they can make friendships, participate in teamwork, help other fellow students, resolve interpersonal conflicts, and communicate well.

CHISSEL

5. DISCUSSION & CONCLUSION

CHISSEL TOOL DEVELOPMENT

SEL is an integral part of education that focuses on the development of social-emotional competencies in students. SEL teaches students to understand and manage their emotions, leading to improved mental health, which can lead to a more positive school experience. SEL programs promote positive social interactions and reduce behavioural problems. Students learn empathy, conflict resolution, and effective communication skills, leading to a more harmonious school environment. Students also learn to build and maintain positive relationships with peers, teachers, and family members, which is crucial for their social development. Considering the significance of SEL, the two studies aimed at developing a tool to measure SEL levels in Government schools in Maharashtra. The tool has undergone several changes since its inception.

Initially, in study 1 (CHISSEL 1.0) 5 SEL domains (self-management, decision-making, relationship skills, social awareness, and self-awareness) were assessed. After item analyses, the CHISSEL 2.0 framework was created and SEL domains were revised to 6 domains (academic awareness, self-awareness, emotional development, social awareness, decision making–self-management, and life skills).

CHISSEL1.0 and 2.0 were checked on various statistical parameters like Cronbach's alpha for reliability, and EFA with oblique rotation method (direct oblimin) which led to five factors and a huge item shuffling, thereafter factors were renamed in the first study. CFA was conducted on 15 items which led to four factors and due to the item shuffling these factors were renamed.

In conclusion, the final 25 items (SEL 15 items and life skills 10 items) (see **Table A.5** in Appendix for details) fall under (i) *social-emotional development* with 7 items, (ii) *social support* with 2 items, (iii) *self-management* with 4 items, (iv) *peer support* with 2 items. The final CHISSEL 2.0 showed acceptable reliability for the samples but further statistical analysis is required for its validation and increasing the robustness of the tool.

IMPLICATIONS OF THE SEL COMPETENCY INDEX IN GOVERNMENT SCHOOLS

The CHISSEL 1.0 baseline analysis showed children scored highest on social awareness and relationship skills and lowest on self-awareness. This suggests high empathy, social awareness, and trust in teachers and families. Students felt capable of making friends, teamwork, helping others, resolving conflicts, and communicating well. They could trust their feelings with teachers and family members. High scores on relationship skills show that students feel they can make friendships, participate in teamwork, help other fellow students, resolve interpersonal conflicts, and communicate well. This result is supported by previous studies that show that social-emotional skills equip students with the knowledge and abilities required to build strong friendships, effectively resolve conflicts, manage stress and anxiety, and enhance self-confidence (Tagat et al., 2022).

Lower self-awareness scores indicate less understanding of their emotions and abilities. This includes self-acceptance, self-esteem, self-efficacy, and self-reflection. Self-awareness is crucial for children to understand themselves, develop stable self-esteem, and handle problems effectively. ASER 2019 report on early childhood years in India, supports our finding. The report showed that merely 50% of six-year-olds were capable of identifying the four essential emotions - anger, happiness, fear, and sorrow. For children to interact effectively with their peers and address conflicts appropriately, a sound understanding of emotions is critical [Annual Status of Education Report (ASER), 2020]. In our sample, the children are older than 6 years but still scored lower in the self-awareness domain.

The CHISSEL 2.0 baseline competency indices show that Social awareness and Academic awareness are comparatively well developed in the sample. Digital literacy is comparatively less developed. ANOVA revealed significant differences across grades for self-awareness, decision-making, life skills, leadership skills, and digital literacy. Furthermore, gender-based analysis showed that overall for all domains females scored higher than males except for life skills. Social awareness and academic awareness are comparatively well-developed in the sample. Digital literacy is comparatively less developed. The significant gender differences imply that female participants have slightly higher SEL competencies in the SEL domains of academic awareness, self-awareness, social awareness, and emotional development (empathy).

This result is supported by a previous study affirming that SEL enables students to manage and recognise emotions, care for others, behave ethically and responsibly, avoid negative behaviours, and make good decisions (Weissberg et al., 2015). Based on previous research (Romer et al. 2011; Masnkaj, 2017) it was expected that females would score higher on SEL competencies than males. Small but significant gender differences regarding internalising and externalising emotions have been reported, wherein girls showed more positive emotions and internalised emotions especially in middle childhood than boys (Chaplin & Aldao, 2013). Male participants were considerably higher on life skills consisting of leadership, digital literacy, and problem-solving skills as compared to females.

The report presented two studies conducted to develop CHISSEL for measuring SEL in school children showing acceptable reliability and successfully provided a culturally relevant framework for SEL measurement in the Indian context. This framework is suitable for the Indian school system considering the socio-cultural nuances and academic environment. Further study and tool validation is recommended to increase its efficacy. Our work indicates that SEL measurement in the Indian context should prioritise students' social-emotional development, the social support they receive, their self-management skills, and peer support. Competency indices from our studies reveal the current status of SEL in Maharashtra's Government schools, underscoring the urgent need for school-level SEL programs. The effectiveness of these programs will likely depend on tailoring initiatives according to students' gender and grade levels. School leadership and teachers in Government schools must prioritise workshops and activities that enhance children's decision-making, self-awareness, life skills, and digital literacy.

LIMITATIONS & FUTURE DIRECTIONS

Tool construction is a tedious and time-consuming process. Since available SEL frameworks are still not very sensitive to cultural differences, it becomes difficult to choose and implement them across systems. For the future development steps of the tool, the framework shall undergo changes based on the statistical analyses conducted. CHISSEL showed acceptable reliability, but another round of data collection is required to validate it. The studies could not report significant differences across jurisdictions and grades, the SEL levels were found to be very similar. For future studies comparing primary and secondary school may be considered. Independent *t*-tests showed significant gender differences for specific SEL domains, these results could be corroborated with focus-group discussions, which was beyond the scope of these studies. In the future, a qualitative analysis can be conducted to support quantitative findings. Some limitations of self-report tools implemented on children are as follows:

1	**2**	**3**
Subjectivity and Bias	**Limited Language and Conceptual Understanding**	**Overestimation or Underestimation**
Self-report surveys rely on children's ability to accurately assess and report their own emotions, social skills, and competencies. Their responses may be influenced by momentary emotions, social desirability, or misunderstanding of the questions, leading to biased or inaccurate data.	Children may have limited language skills or understanding of abstract concepts related to social-emotional development which may result in misinterpretations of survey questions.	Children might overestimate or underestimate their abilities due to a lack of comparative benchmarks, normalisation of adverse experiences, or understanding of their competencies relative to others. This can skew the results, making it challenging to identify actual developmental needs or progress.

While self-report surveys can provide valuable insights into how children see themselves, combining them with observational and measurement-based approaches ensures a more balanced and comprehensive assessment. This mixed-method approach helps to validate the findings and address the limitations inherent in self-reported data. Trained observers such as teachers, and family members can identify behaviours, skills, and emotional responses that children may not be able to articulate or accurately report themselves.

> *Teachers should increase students' self-awareness by engaging them in mindful activities and educating them about emotional expression.*

CHISSEL

RECOMMENDATIONS

Implementing social-emotional learning (SEL) programs for school children is an ongoing endeavour and as the saying goes "It requires a village to raise a child", we provide recommendations for all stakeholders in education.

I. FOR POLICY MAKERS

a. Provide **sufficient funding** for the implementation of SEL programs that integrate adaptability to meet the unique needs of schools;

b. **Adopting reliable tools** of SEL metric in assessments.

c. Policy to include **SEL metric to be tracked** at state level alongside FLN metrics.

d. **Orient teachers on the importance of SEL** and make it part of social audits, parent-teacher meetings, and school management committee discussion points.

e. Create some **norms for SEL programs** and promote studies that examine the effects of explicit SEL strategies;

f. To ensure the **standards of SEL programs** there should be systematic monitoring programs designed at regular intervals; advocate for policies that support SEL at the local, regional, and national levels. Provide evidence and success stories to demonstrate the benefits of SEL;

g. Implementation of programs for **improving teachers' SEL competencies**.

h. **Re-evaluate the current curriculum** implementation to understand the gaps and restructure appropriately to ensure that you can meet and implement SEL goals as envisioned, develop a detailed curriculum on SEL for different grades in line with NCF 2023, and create a handbook of SEL activities teachers can refer to. It is advisable to create assessments based on our SEL study domains (e.g. Holistic Progress Card).

II. FOR SCHOOL AUTHORITIES

a. **Recognize the efforts** taken by the teachers and other employees and motivate them to perform better;

b. **Make arrangements for effective SEL training programs** for educators, and teachers to ensure the successful implementation of the program for students; establish peer support networks and mentorship programs for teachers to share best practices and challenges.

c. **Collaboration with family/community** to strengthen the social-emotional competencies of learners and their academic achievements.
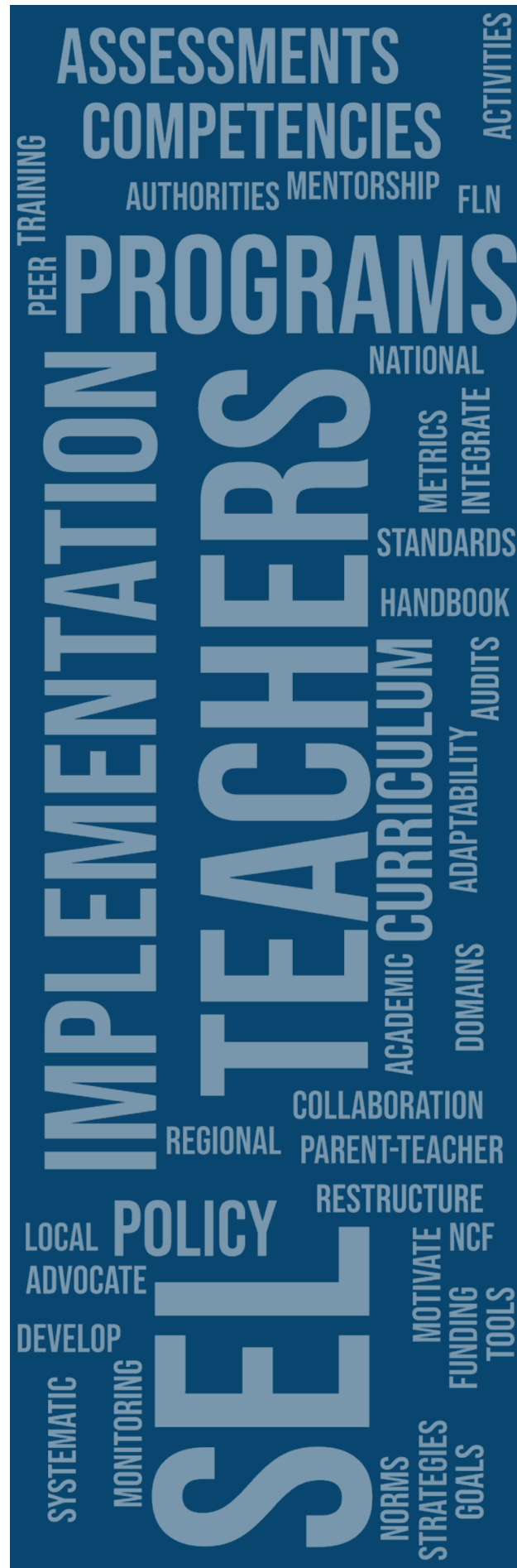
III. FOR EDUCATORS

a. Teachers should understand and **accept the differences** in the learning capacities and social-emotional diversity of the learner in the classroom setting and **Treat all the learners impartially** to instil a sense of belongingness and to foster a bond between learner and teacher;

b. Children benefit when teachers converse with them on different topics such as gender, racial and cultural disparities, marginalised communities, etc. to **broaden their sociocultural horizons** and increase their empathy for the different layers of society;

c. **Teachers should increase students' self-awareness** by engaging them in mindful activities and educating them about emotional expression. To inculcate empathy and to improve the classroom environment, endorse kindness acts randomly;

d. **Increase learners' self-confidence** and foster a positive relationship with them, encourage and recognize their small accomplishments;

e. **Increase learners' decision-making ability**, educate them about consequence assessments and conduct role plays to practise decision-making as a part of classroom activities

f. **Take timely feedback** from the learner after incorporating SEL competencies into all courses of the curriculum;

g. Do **consider the gender differences** when you plan SEL activities in the areas of life skills such as problem-solving, digital literacy and leadership skills.

IV. FOR RESEARCHERS, PRACTITIONERS, NON-PROFIT ORGANISATIONS & THINK TANKS

a. Based on sound research, create **holistic frameworks of curriculum integrating SEL measurement for each program** further considering socio-cultural diversity and defining specific, measurable outcomes for SEL programs to establish benchmarks for their success. Working with Government authorities (e.g. NCERT and SCERT)shall make the research more realistic.

b. **Assess the specific social-emotional needs** of students through surveys, interviews, and focus groups with students, teachers, parents, and community members;

c. **Analyse existing data on student behaviour**, academic performance, and mental health to identify key areas of need;

d. **Design comprehensive SEL programs** by creating evidence-based SEL curricula that are age-appropriate and culturally relevant. Ensure the curriculum covers key competencies like self-awareness, self-management, social awareness, relationship skills, and responsible decision-making;

e. **As feedback mechanisms create channels** for students, teachers, and parents to provide feedback on the SEL programs and make necessary adjustments based on this input.

CHISSEL

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APPENDICES

Item no.	Domain	Sub-domain	Item	Marathi Translation
1	Self-management	Planning & Organisation Skills	I can understand what is expected of me and can act accordingly	माझ्याकडून असणाऱ्या अपेक्षा मला समजतात आणि मी त्याप्रमाणे वागतो / वागते.
2		Growth Mindset /Optimism	When I grow up, I have ideas and plans for my high school and college	मोठे झाल्यावर हायस्कूल व कॉलेजमध्ये काय करायचे याबद्दल माझ्या कल्पना व योजना आहेत.
3		Emotional Regulation	When someone teases me and makes me angry, I can stay calm and don't react immediately	मला चिडवले व राग आणला तरी मी शांत राहु शकतो/ शकते व लगेच त्यावर काही करत व म्हणत नाही.
4		Emotional Regulation	When I feel sad, I do something to cheer myself up	जेव्हा मला वाईट वाटते किंवा मी दुःखी होतो/ होते तेव्हा मी आनंदी वाटण्यासाठी काहीतरी करतो/करते.
5		Self-Regulation	I am able to complete tasks (schoolwork, school activities, play activities) I have started	मी सुरू केलेले कोणतेही काम (शाळेतील उपक्रम, गृहपाठ, खेळ) पूर्ण करतो/करते.
6		Self-Discipline	I am able to do things (attend school, finish homework, finish my meals, play) on time	मी माझी कामे वेळेत करतो/करते (शाळेत वेळेवर पोहोचणे, गृहपाठ पूर्ण करणे, जेवण पूर्ण करणे, खेळणे).
7	Decision making	Consequence Evaluation	When I decide something, I think about what would happen later	जेव्हा मी काही ठरवतो/ठरवते मी त्याचे परिणाम काय होतील याचा विचार करतो/करते.
8		Decision Making	I gather and make sense of different types of information whenever I need to make an important choice or decision	जेव्हा मला महत्त्वाची निवड किंवा निर्णय घ्यायचा असतो, मी त्यासंदर्भातील माहिती गोळा करतो / करते आणि ती माहिती समजून घेतो / घेते.
9		Safety Perception	I can say 'no' to do wrong or unsafe things, if someone asks me to do them	जर कोणी मला चुकीच्या किंवा घातक गोष्टी करण्यास सांगितले तर मी 'नाही' म्हणू शकतो/शकते.
10	Self awareness	Self-Acceptance	If someone points out my mistake, I accept it	माझी चूक कोणी लक्षात आणून दिली तर मी ती मान्य करतो/करते.
11		Self-Efficacy	I feel I do not work hard enough to do well at school	मला असे वाटते की मी शाळेत यशस्वी होण्यासाठी पुरेसे प्रयत्न करत नाही.
12		Self-Reflection	I am confused about my feelings about people and events around me	माझ्या आजू बाजूला असणाऱ्या लोकांबद्दल व घटनांविषयी मला काय वाटतं ते कळत नाही.
13		Belongingness	I am confused about how I should behave with people around me	माझ्या आजूबाजूच्या लोकांशी मी कसे वागावे याबद्दल मी गोंधळलेला/ ली आहे.
14		Happiness	I feel happy about most things in my life	माझ्या आयुष्यातील खूपशा गोष्टींबद्दल मला आनंद वाटतो.
15		Self-Esteem	I feel useless	मी निरूपयोगी आहे असे मला वाटते.
16	Social awareness	Empathy	I get emotionally involved with problems of people around me	मला इतरांच्या समस्यांबद्दल आस्था आहे.
17		School Awareness	I have a teacher I trust and share my feelings with	माझ्या शाळेमध्ये एक शिक्षक आहेत ज्यांच्यावर माझा विश्वास आहे आणि मी माझ्या मनातलं त्यांच्याशी बोलू शकतो/ शकते.
18		Family Awareness	I have a family member who teaches me what I dont know	माझ्या कुटुंबामध्ये अशी एकतरी व्यक्ति आहे जी मला काही नवीन शिकण्यास मदत करते.
19		Family Awareness	I have a family member I trust and share my feelings with	माझ्या कुटुंबामध्ये अशीएकतरी विश्वासू व्यक्ति आहे जिच्याशी मी माझ्या मनातलं बोलू शकतो/ शकते.
20		Neighbourhood/ Community Awareness	I have someone (outside my school and family) who cares about me and listens to me when I need them	शाळेबाहेर आणि कुटुंबाबाहेर माझी काळजी करणारे कोणीतरी आहे आणि मला त्यांची गरज पडल्यावर, ते माझे ऐकून घेतात.
21	Relationship skills	Prosocial Behaviour	I can make someone happy, who was feeling sad	मी एखाद्या दुःखी व्यक्तीला आनंदी करू शकते / शकतो.
22		Peer Support	I help others solve a problem or help them with their work	मी इतरांना त्यांच्या समस्या सोडवण्यास किंवा त्यांना त्यांच्या कामात मदत करतो/ करते.
23		Peer Belonging	I feel bad when someone does not have what I have	माझ्याजवळ असलेल्या गोष्टी जर समोरच्या जवळ नसतील तर मला वाईट वाटते.
24		Belongingness	I feel bad when someone is not treated properly	एखाद्याला चुकीची वागणूक दिली जात असेल तर मला वाईट वाटते.
25		Friendship Quotient	I share everything with my best/close friend	मी माझ्या जवळच्या मित्र/ मैत्रिणीशी सर्व काही बोलतो/ बोलते.
26		Teamwork	I like working together in a group to complete tasks	मला गटामधील काम पूर्ण करण्यासाठी गटात मिळून मिसळून काम करायला आवडते.
27		Conflict Resolution	I can be friends again with the person I fought with or had a problem with	जरी मी एखाद्या व्यक्तीशी भांडलो/भांडले तरी तिच्याशी मी पुन्हा मैत्री करू शकतो/शकते.
28		Communication/ Collaboration	I can speak in a way others can understand me	इतरांना समजेल अशा प्रकारे मी बोलू शकतो/शकते.

Table A.2 Summary of Exploratory Factor Analysis results for CHISSEL 1.0 tool
(*N* = 1647). **AA:** Academic awareness, **SA:** Self- Awareness, **ED:** Emotional Development;
SOA: Social awareness, **DM-SM:** Decision-making & Self-Management

SEL Domains	Items	Rotated factor loadings				
		AA	SA	ED	SOA	DM-SM
Relationship Skills	I help others solve a problem or help them with their work	0.574				
Self Management	I am able to complete tasks (schoolwork, school activities, play activities) I have started	0.571				
Self Management	I am able to do things (attend school, finish homework, finish my meals, play) on time	0.476				
Relationship Skills	I like working together in a group to complete tasks	0.467				
Relationship Skills	I can make someone happy, who was feeling sad	0.43				
Relationship Skills	I can speak in a way others can understand me	0.417				
Decision Making	I gather and make sense of different types of information whenever I need to make an important choice or decision	0.376		-0.313		
Social Awareness	I have a teacher I trust and share my feelings with	0.366				
Self Management	I can understand what is expected of me and can act accordingly	2.92		0.255		
Relationship Skills	I can be friends again with the person I fought with or had a problem with	0.386				0.12
Self Management	When I grow up, I have ideas and plans for my high school and college	0.255		0.139		
Self Awareness	I am confused about how I should behave with people around me		0.611			
Self Awareness	I feel useless		-0.587			
Self Awareness	I feel I do not work hard enough to do well at school		0.549			
Self Awareness	I am confused about my feelings about people and events around me		0.516			
Social Awareness	I have a family member I trust and share my feelings with		0.413		0.312	0.154
Social Awareness	I get emotionally involved with the problems of people around me			-0.536	0.312	
Relationship Skills	I feel bad when someone is not treated properly			-0.529		
Relationship Skills	I feel bad when someone does not have what I have			-0.471		
Relationship Skills	I share everything with my best/close friend				0.636	
Social Awareness	I have someone (outside my school and family) who cares about me and listens to me when I need them				0.572	
Self Awareness	I feel happy about most things in my life				0.441	
Social Awareness	I have a family member who teaches me what I don't know				0.411	
Decision Making	When I decide something, I think about what would happen later					0.681
Self Management	When someone teases me and makes me angry, I can stay calm and don't react immediately					0.443
Self Awareness	If someone points out my mistake, I accept it					0.337
Decision Making	I can say 'no' to do wrong or unsafe things if someone asks me to do them			-0.525		0.355
Self Management	When I feel sad, I do something to cheer myself up					0.301
	Eigenvalues	**3.45**	**1.5**	**1.31**	**1.23**	**1.11**
	% of variance	**8.3**	**5.79**	**5.73**	**5.69**	**5.22**

Table A.3 Summary of Exploratory Factor Analysis results for CHISSEL 2.0 tool (*N* = 3142)

No.	Items	Domain & Item no.	Factor 1	Factor 2	Factor 3	Factor 4
		Factor Loadings (Structure Matrix)				
1	I help others solve a problem or help them with their work	Academic awareness_1			0.357	
2	I am able to complete tasks (school work, school activities, play activities) I have started	Academic awareness_2		0.331		
3	I am able to do things (attend school, finish homework, finish my meals, play) on time	Academic awareness_3				
4	When I grow up I have ideas and plans for my high school and college	Academic awareness_11			0.349	
5	I feel I do not work hard enough to do well at school	Self awareness_14				
6	I can make someone happy, who is feeling sad	Academic awareness_5			0.352	
7	I get emotionally involved with the problems of people around me	Emotional development_1	0.402			
8	I feel bad when someone is not treated properly	Emotional development_18	0.357	0.341		
9	I feel bad when someone does not have what I have	Emotional development_19				
10	When someone teases me and makes me angry, I can stay calm and don't react immediately	Decision making-Self management_25				
11	When I feel sad, I do something to cheer myself up	Decision making-Self management_28			0.331	
12	I like working together in a group to complete tasks	Academic awareness_4	0.307			
13	I can speak in a way others can understand me	Academic awareness_6	0.326			
14	I can be friends again with the person I fought with or had a problem with	Academic awareness_10				0.379
15	I am confused about how I should behave with people around me	Self awareness_12	0.301			
16	I have a family member I trust and share my feelings with	Self awareness_16		0.418		
17	I share everything with my best/close friend	Social awareness_20				0.328
18	I have someone (outside my school and family) who cares about me and listens to me when I need them	Social awareness_21				
19	I have a family member who teaches me what I don't know	Social awareness_23		0.537		
20	If someone points out my mistake, I accept it	Decision making-Self management_26	0.319			
21	I gather and make sense of different types of information whenever I need to make an important choice or decision	Academic awareness_7	0.34			
22	I can say 'no' to do wrong or unsafe things if someone asks me to do them	Decision making-Self management_27	0.389			
23	When I decide something, I think about what would happen later	Decision making-Self management_24	0.511			
	Eigenvalues		**3.32**	**1.28**	**1.16**	**1.1**
	% of variance		**5.2**	**4.36**	**4.32**	**1.72**

Table A.4 CHISSEL 2.0 inclusion of Life skill items

Item no.	Sub-domain	Item	Marathi Translation
24	Problem solving behaviour	I evaluate why a solution did not work when solving a problem	अडचण सोडवताना उपाय का काम करत नाही याचे मी मूल्यांकन करतो/करते
25	Problem solving behaviour	Whenever I am stuck I seek help from others in solving the problem	जेव्हा मी अडकतो, तेव्हा मी अडचण सोडवण्यासाठी इतरांची मदत घेतो/घेते
26	Problem solving-creative thinking	Whenever I face a problem, I try to think of different ways to solve it	अडचणीत असताना मी वेगवेगळ्या पद्धतीने अडचण सोडवण्याचे प्रयत्न करतो/करते
27	Leadership-initiative	I am able to take charge of events/programs	मला कोणत्याही कार्यक्रमाची जबाबदारी सांभाळायला आवडते
28	Leadership skill	I am able to speak in front of a group of people and express myself / my opinions	मी लोकांसमोर बोलू शकतो/शकते आणि माझे मत मांडू शकतो/शकते
29	Leadership potential	I believe I can lead others to accomplish good things	माझा विश्वास आहे की मी इतरांना चांगले काम पूर्ण करायला मदत/प्रोत्साहन देऊ शकते
30	Digital literacy: digital access	I have access to smartphone at home/computers in school	मला शाळेत संगणक / घरी स्मार्टफोन वापरण्याची संधी मिळते
31	Digital literacy: digital usage	I am able to use a Smartphone/Computer for study purposes (WhatsApp/YouTube videos, study material online, games and puzzles for math and language)	मला अभ्यासाला संगणक / स्मार्टफोन वापरायला आवडते (WhatsApp/YouTube विडिओ, e-साहित्य, भाषा व गणितासाठी खेळ)
32	Digital literacy: application of digital competence	I am able to search for information on websites	वेबसाइट्सवर माहिती कशी शोधायची हे मला माहीत आहे
33	Digital Literacy: Digital Transformation (creation of new knowledge)	I am able to create my own content online/on platforms (e.g. -in Word, PowerPoint, Videos etc)	मी स्वतः ऑनलाइन मजकूर तयार करू शकतो/शकते (उदा: Word, PPT, विडिओ, इ)

Table A.5 Final CHISSEL 2.0 renamed items after EFA and CFA

Item no.	SEL Domain	Sub-domain	Item	Marathi Translation
1	Social-emotional development	Empathy	I get emotionally involved with problems of people around me	मला इतरांच्या समस्यांबद्दल सहानुभूती आहे.
2		Belongingness	I feel bad when someone is not treated properly	एखाद्याला चुकीची वागणूक दिली जात असेल तर मला वाईट वाटते.
3		Team work	I like working together in a group to complete tasks	मला गटामधील काम पूर्ण करण्यासाठी गटात मिळून मिसळून काम करायला आवडते.
4		Communication	I can speak in a way others can understand me	इतरांना समजेल अशा प्रकारे मी बोलू शकतो/शकते.
5		Social appropriateness	I know how I should behave with people around me	माझ्या आजूबाजूच्या लोकांशी मी कसे वागावे हे मला समजते.
6		Self acceptance	If someone points out my mistake, I accept it	माझी चूक कोणी लक्षात आणून दिली तर मी ती मान्य करतो/करते.
7		Decision making-consequence evaluation	When I decide something, I think about what would happen later	जेव्हा मी काही ठरवतो/ठरवते मी त्याचे परिणाम काय होतील याचा विचार करतो/करते.
8	Social support	Family emotional support	I have a family member I trust and share my feelings with	माझ्या कुटुंबामध्ये माझे विश्वास असलेले कोणीतरी आहे आणि मी माझ्या मनातलं त्यांच्याशी बोलू शकतो/ शकते.
9		Family support	I have a family member who teaches me what I dont know	माझ्या कुटुंबामध्ये अशी एकतरी व्यक्ति आहे जी मला काही नवीन शिकण्यास मदत करते.
10	Self-management	Emotional regulation	When I feel sad, I do something to cheer myself up	जेव्हा मला वाईट वाटते किंवा मी दुःखी होतो/ होते तेव्हा मी आनंदी वाटण्यासाठी काहीतरी करतो/करते.
11		Helping behaviour	I help others solve a problem or help them with their work	मी इतरांना त्यांच्या समस्या सोडवण्यास किंवा त्यांना त्यांच्या कामात मदत करतो/ करते.
12		Growth mindset	When I grow up I have ideas and plans for my high school and college	मोठेझाल्यावर हायस्कूल व कॉलेजमध्ये काय करायचे याबद्दल माझ्या कल्पना व योजना आहेत.
13		Prosocial behaviour	I can make someone happy, who was feeling sad	मी एखाद्या दुःखी व्यक्तीला आनंदी करू शकतो/शकते.
14	Peer support	Conflict resolution	I can be friends again with the person I fought with or had a problem with	जरी मी एखाद्या व्यक्तीशी भांडलो/भांडले तरी तिच्याशी मी पुन्हा मैत्री करू शकतो/शकते.
15		Friendship	I share everything with my best/close friend	मी माझ्या जवळच्या मित्र/ मैत्रिणीशी सर्व काही बोलतो/ बोलते.
16	Life skills	Problem solving behaviour	I evaluate why a solution did not work when solving a problem	अडचण सोडवताना उपाय का काम करत नाही याचे मी मूल्यांकन करतो/करते
17		Problem solving behaviour	Whenever I am stuck I seek help from others in solving the problem	जेव्हा मी अडकतो, तेव्हा मी अडचण सोडवण्यासाठी इतरांची मदत घेतो/घेते
18		Problem solving-creative thinking	Whenever I face a problem, I try to think of different ways to solve it	अडचणीत असताना मी वेगवेगळ्या पद्धतीने अडचण सोडवण्याचे प्रयत्न करतो/करते
19		Leadership- initiative	I am able to take charge of events/programs	मला कोणत्याही कार्यक्रमाची जबाबदारी सांभाळायला आवडते
20		Leadership skill	I am able to speak in front of a group of people and express myself / my opinions	मी लोकांसमोर बोलू शकतो/शकते आणि माझे मत मांडू शकतो/शकते
21		Leadership potential	I believe I can lead others to accomplish good things	माझा विश्वास आहे की मी इतरांना चांगले काम पूर्ण करायला मदत/प्रोत्साहन देऊ शकते
22		Digital literacy: digital access	I have access to smartphone at home/computers in school	मला शाळेत संगणक / घरी स्मार्टफोन वापरण्याची संधी मिळते
23		Digital literacy: digital usage	I am able to use a Smartphone/Computer for study purposes	मला अभ्यासाला संगणक / स्मार्टफोन वापरायला आवडते
24		Digital literacy: application of digital competence	I am able to search for information on websites	वेबसाइट्सवर माहिती कशी शोधायची हे मला माहीत आहे
25		Digital Literacy: Digital Transformation (creation of new knowledge)	I am able to create my own content online/on platforms	मी स्वतः ऑनलाइन मजकूर तयार करू शकतो/शकते

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Our work indicates that SEL measurement in the Indian context should prioritise students' social-emotional development, the social support they receive, their self-management skills, and peer support. Competency indices from our studies reveal the current status of SEL in Maharashtra's Government schools, underscoring the urgent need for school-level SEL programs. The effectiveness of these programs will likely depend on tailoring initiatives according to students' gender and grade levels.

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