



EmpowerEd
Foundation

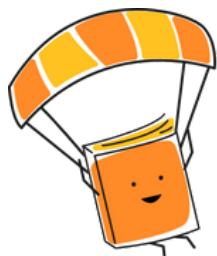


SMARTlearner Program
**IMPACT
ASSESSMENT
REPORT**

2025

Independent Study by
SCMS Center for Socio Economic Research





EmpowerEd
Foundation

SMARTlearner Program

IMPACT ASSESSMENT REPORT

Independent Study by

SCMS Center for Socio Economic Research
(SCENSER)



2025

Executive Summary

The **SMARTlearner Program** by the EmpoerEd Foundation, is a two-year educational initiative designed to enhance learning skills, strengthen numeracy, and nurture values among children in grades 5 and 6. Implemented across four government-funded schools in Ernakulam and Thiruvananthapuram, the program reached 67 students from diverse socio-economic backgrounds. The initiative sought to holistically develop cognitive, academic, and emotional competencies, thereby preparing young learners for long-term academic success and responsible citizenship.

The program's core components including Learning Skills Enhancement, Numeracy Proficiency, and Value Education were strategically integrated to provide a well-rounded learning experience for students. Under Learning Skills Enhancement, students engaged in structured activities to improve concentration, listening, and observation abilities. Continuous practice and guided exercises helped participants strengthen their memory retention and recall capabilities. The sessions also emphasized confidence-building and focused attention, both critical for effective classroom learning. The outcomes revealed a marked improvement in students' ability to process, retain, and apply new information, translating into better overall academic engagement.

The Numeracy Proficiency component targeted conceptual understanding and problem-solving confidence in mathematics. Through an applied learning approach, students mastered basic arithmetic operations, fractions, and decimals, while being introduced to algebraic expressions, square roots, and cube roots. This scaffolder pedagogy encouraged learners to view mathematics not as a rote subject but as a logical, enjoyable discipline. The assessment results demonstrated enhanced numerical fluency and a positive shift in attitudes toward mathematics, particularly among students who had previously shown learning gaps.

The Value Education segment focused on instilling moral and social responsibility. Interactive storytelling, discussions, and experiential learning sessions enabled students to internalize key values such as empathy, responsibility, teamwork, and integrity. Teachers observed noticeable behavioural transformation, reflected in improved peer relationships, cooperation, and classroom discipline.

Overall, the impact assessment indicates that the SMARTlearner Program has been highly effective in achieving its multidimensional objectives. It not only elevated academic preparedness but also nurtured essential life skills. The integration of values-based learning with cognitive and numerical development created a supportive environment that encouraged both intellectual and emotional growth. The program's outcomes underscore the importance of holistic educational models in strengthening foundational learning. By equipping children with critical thinking, mathematical competence, and ethical grounding, SMARTlearner has demonstrated the potential to create a generation of confident, capable, and compassionate learners poised for continued success.



Introduction

EmpowerEd Foundation is a non-profit organization dedicated to advancing educational equity and enhancing learning outcomes among school-aged children across India. Guided by its mission to empower learners from diverse socio-economic backgrounds, the foundation focuses on creating inclusive, technology-enabled, and pedagogically sound interventions that strengthen foundational skills and promote holistic development. Through collaborations with schools, educators, and community stakeholders, EmpowerEd Foundation works to bridge learning gaps and ensure that every child receives the support needed to thrive academically and personally.

A key strength of the Foundation lies in its evidence-based program design and its ability to tailor initiatives to the evolving needs of learners and schools. By integrating innovative teaching methodologies, student-centric learning tools, and capacity-building for educators, EmpowerEd Foundation consistently delivers high-impact programs that are scalable, measurable, and sustainable. Its initiatives are grounded in extensive field research and continuous monitoring, ensuring that each intervention aligns with national education priorities and contributes meaningfully to systemic improvement.

The **SMARTlearner Program**, one of EmpowerEd Foundation's flagship initiatives, reflects this commitment to innovation and measurable impact. Designed to enhance students' cognitive, academic, and digital competencies, the program leverages structured learning modules, interactive pedagogies, and regular assessments to foster meaningful learning experiences. EmpowerEd Foundation's leadership, operational expertise, and collaborative approach have enabled the SMARTlearner Program to be successfully implemented across multiple schools, creating a positive and lasting influence on student engagement, teacher effectiveness, and school-level learning environments.

The current study aims to evaluate the effectiveness of learning enhancement initiatives implemented across selected schools under the program. The assessment focused on six foundational skills essential for holistic student development and academic success. The Baseline Assessment served as an indicator of existing proficiency levels, while the Endline Assessment captured the extent of improvement after exposure to programmatic interventions. The selected skills were measured through standardized tests, and the results were compared to assess changes in students' learning outcomes.

The following schools were included in the analysis:

- St. Antony's U.P. School, Kattakode, Trivandrum
- St. Joseph's U.P. School, Perayam, Trivandrum
- St. Mary's Convent Girls High School, Kacherippadi, Ernakulam
- St. Thomas Girls High School, Perumanoor, Ernakulam



St. Antony's U.P. School, Kattakode, is a Christian minority, government-aided upper primary school in the Kattakkada region of Thiruvananthapuram, serving children from the surrounding rural communities. It is recognised as one of the established schools in the area and enjoys positive feedback from parents and alumni for its learning environment. The school not only focuses on foundational learning but also encourages participation in co-curricular and enrichment programmes, helping students build confidence and values at an early age.

St. Joseph's U.P. School, Perayam, is an upper primary school that caters to children from Perayam and nearby localities, with a special emphasis on discipline and academic strengthening. The school has partnered with external organisations to improve learning outcomes, particularly in Mathematics. By combining value-based education with focused academic support, the school plays an important role in shaping confident and responsible young learners in its semi-rural setting.





St. Mary's Convent Girls High School, located in the Kacherippadi area of Ernakulam, is a long-standing convent institution for girls, sanctioned in 1934, and run under Catholic management. Situated in the heart of the city and recognised as a key neighbourhood school, it blends a strong academic culture with value-based education and disciplined campus life. Over the decades, the school has contributed significantly to girls' education and empowerment in Kochi, encouraging students to excel in studies, co-curricular activities, and community service.

St. Thomas Girls High School at Perumanoor, Ernakulam, is a reputed secondary school for girls under the Archdiocese of Ernakulam–Angamaly, located off Pandit Karuppan Road. The school is known locally for its welcoming campus and positive parent feedback, reflected in strong community ratings and interest. With a focus on holistic formation, academic achievement, character building, and participation in co-curricular activities, it provides a safe and supportive environment that encourages girls to realise their potential and become active contributors to society.



Detailed Analysis of SMARTlearner Program

The analysis indicates consistent improvement across all batches, demonstrating the effectiveness of the academic interventions implemented. Schools with lower initial scores, such as St. Mary's Convent Girls High School, showed significant progress, indicating equitable growth across batches. Such gains highlight not only academic improvement but also enhanced engagement and motivation among students. Overall, the findings reveal positive trends in both academic and socio-emotional outcomes. The program has contributed to measurable student growth and strengthened foundational learning outcomes. Continued monitoring and targeted support will sustain this trajectory of improvement in future cycles. The analysis indicates a steady upward trend in all participating schools, with an average improvement range between 0.116 and 0.265 points. Schools that had relatively lower baseline scores, particularly St. Mary's Convent Girls High School recorded higher growth margins, signifying effective remedial and adaptive teaching strategies.

Table. 1 Overall School Performance

School Name	Baseline Average	Endline Average	Improvement (Absolute)	Improvement (%)
St. Antony's U.P. School	0.623	0.739	0.116	18.6%
St. Joseph's U.P. School	0.58	0.745	0.165	28.4%
St. Mary's Convent Girls High School	0.327	0.592	0.265	81.0%
St. Thomas Girls High School	0.443	0.668	0.224	50.6%

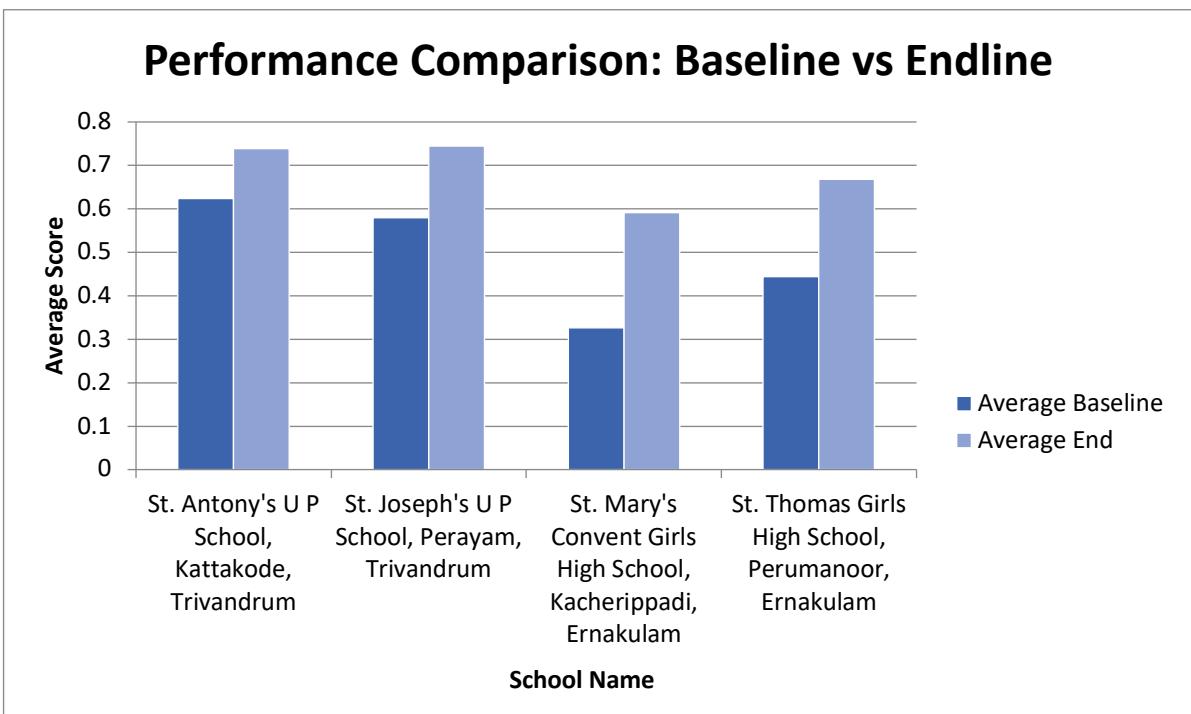


Figure 1. School wise Performance Comparison

Skill-Specific Improvements

SMARTlearner program focused on six key competencies identified as critical to holistic learning of students such as Arithmetic and Observation Skill, Comprehension Skill, Auditory Skill, Logical Thinking Skill, Memory Retention and Recall Skill, and Speed Skill.

Student Competencies Evaluation

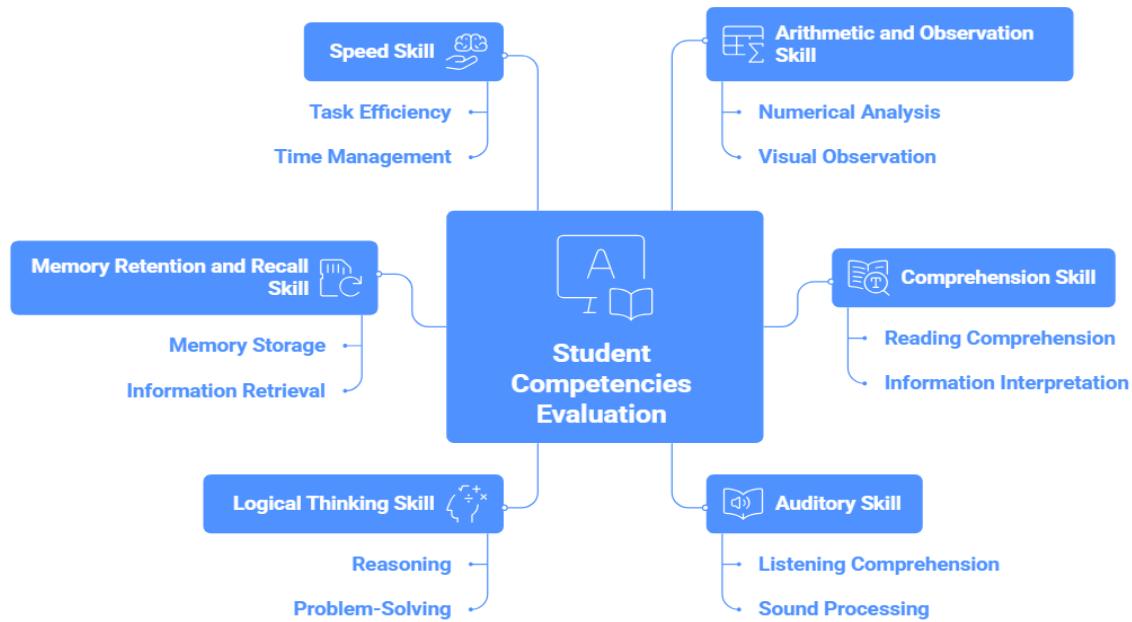


Figure 2. Student competencies evaluation components

Presented below, the detailed school wise analysis:

1. St. Thomas Girls High School, Perumanoor, Ernakulam

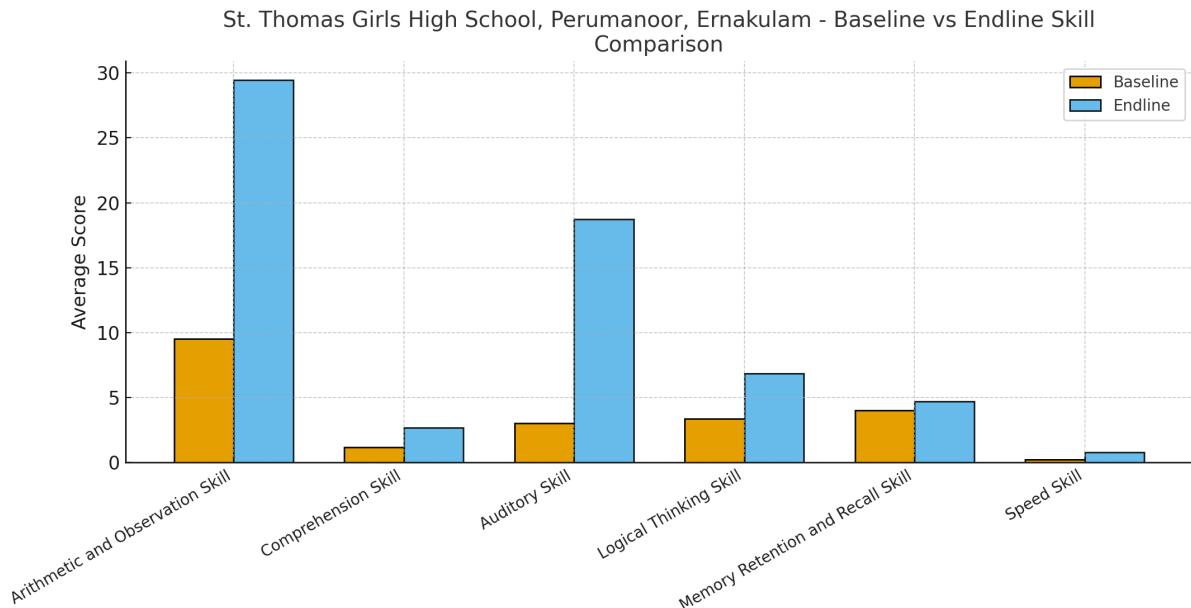


Figure 3. Comparisons of Skill Enhancement: St. Thomas Girls High School

2. St. Mary's Convent Girls High School, Kacherippadi, Ernakulam

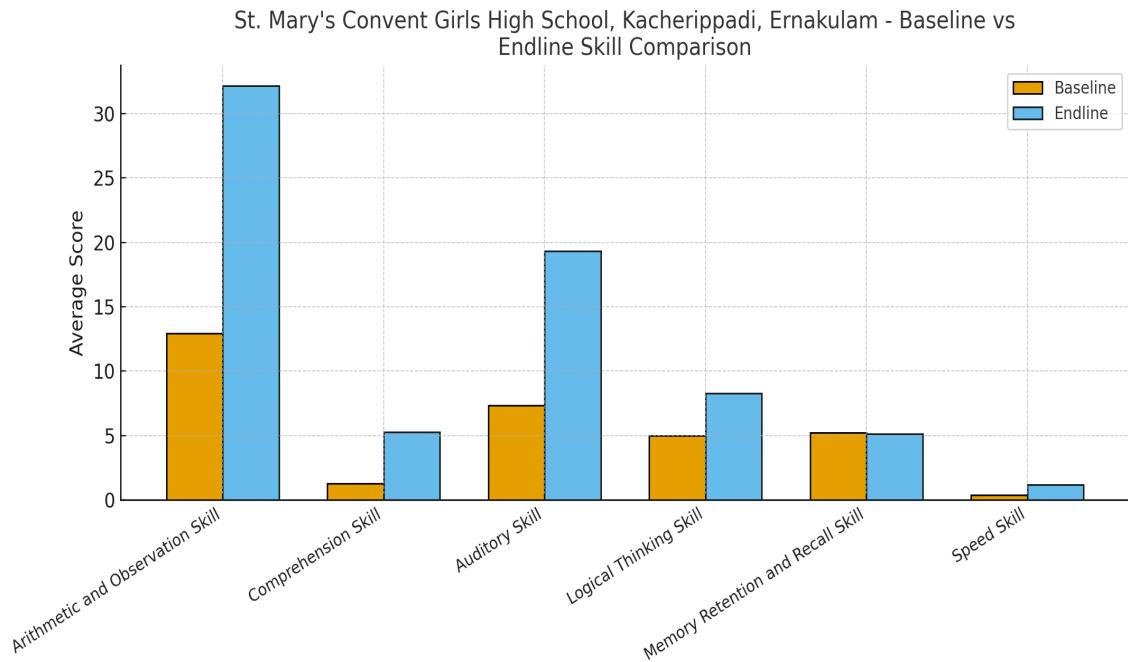


Figure 4. Comparisons of Skill Enhancement: St. Mary's Convent Girls High School

3. St. Joseph's U P School, Perayam, Trivandrum

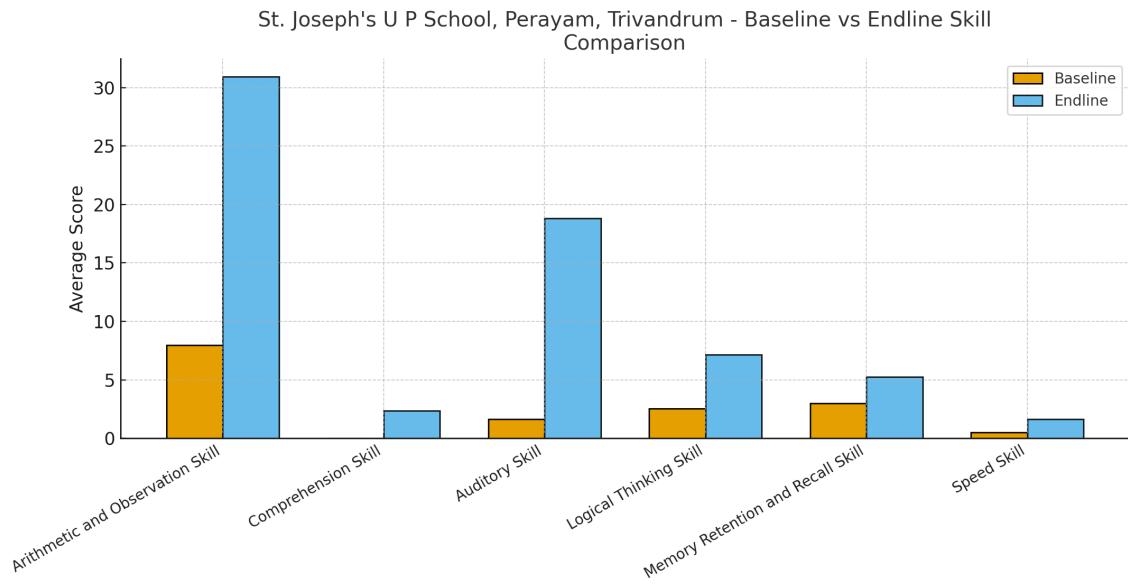


Figure 5. Comparisons of Skill Enhancement: St. Joseph's U P School

4. St. Antony's U P School, Kattakode, Trivandrum

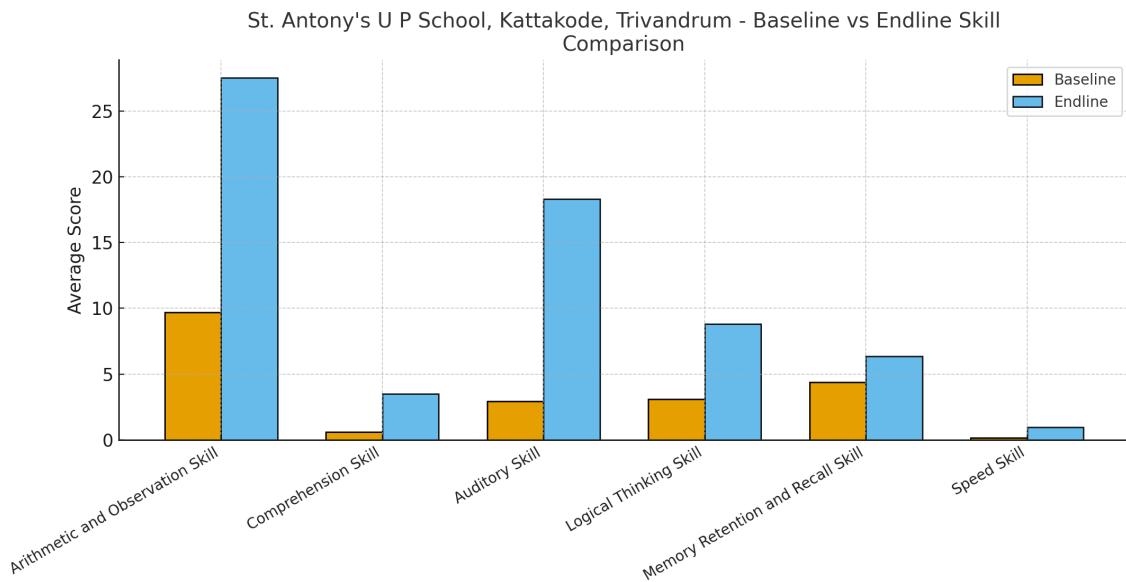


Figure 6. Comparisons of Skill Enhancement: St. Antony's U P School

Table 2. Skill Performance Comparison across the schools

School	1 st	2 nd	3 rd
St. Antony's U.P. School	Auditory Skill (18.00)	Arithmetic and Observation (29.50)	Comprehension (4.00)
St. Joseph's U.P. School	Arithmetic and Observation (31.50)	Auditory Skill (18.00)	Logical Thinking (7.00)
St. Mary's Convent Girls High School	Arithmetic and Observation (31.50)	Comprehension (5.00)	Logical Thinking (8.00)
St. Thomas Girls High School	Arithmetic and Observation (29.00)	Auditory Skill (18.00)	Memory Retention and Recall (4.50)

The skill performance comparison across the four schools highlights consistent excellence in arithmetic reasoning and auditory comprehension. St. Antony's U.P. School exhibited strong results in Auditory Skill (18.00), indicating effective listening and comprehension abilities, followed by outstanding improvement in Arithmetic and Observation Skill (29.50) and notable achievement in Comprehension Skill (4.00). St. Joseph's U.P. School showcased remarkable proficiency in Arithmetic and Observation Skill (31.50), reflecting advanced numerical understanding and problem-solving capability, complemented by Auditory Skill (18.00) and Logical Thinking Skill (7.00), demonstrating well-rounded cognitive development.

St. Mary's Convent Girls High School also achieved high scores in Arithmetic and Observation Skill (31.50), alongside commendable outcomes in Comprehension Skill (5.00) and Logical Thinking Skill (8.00), emphasizing balanced growth in analytical and reasoning abilities. St. Thomas Girls High School displayed consistent strength in Arithmetic and Observation Skill (29.00) and Auditory Skill (18.00), with promising performance in Memory Retention and Recall Skill (4.50), suggesting improved cognitive retention and focus. Overall, Arithmetic and Observation Skill emerged as the strongest domain across all schools, followed by Auditory Skill, underscoring the program's success in enhancing critical thinking, attentiveness, and comprehension among students.

Value Education

The program emphasizes not only academic learning skills but also core values such as responsibility, empathy, and integrity. These values nurture students' character and emotional intelligence. By integrating life skills with learning, the program empowers them to become compassionate individuals and responsible members of society.

Unveiling Behavioral Change Through Peer Review



Figure 7. Components of behavioural change

The training program had a significant positive impact on students' behavioural development. Post-training assessments indicate remarkable improvements across all key areas such as determination, respectfulness, consistency, communication, self-care, and resilience. Students demonstrated stronger perseverance and focus, enhanced interpersonal interactions marked by respect and empathy, and a greater ability to maintain consistent effort. Improved communication skills fostered confidence and collaboration, while better self-care habits promoted overall well-being. The substantial rise in resilience reflects students' increased capacity to adapt and recover from challenges. Overall, the program successfully nurtured essential life skills, shaping well-rounded, responsible, and emotionally balanced individuals.

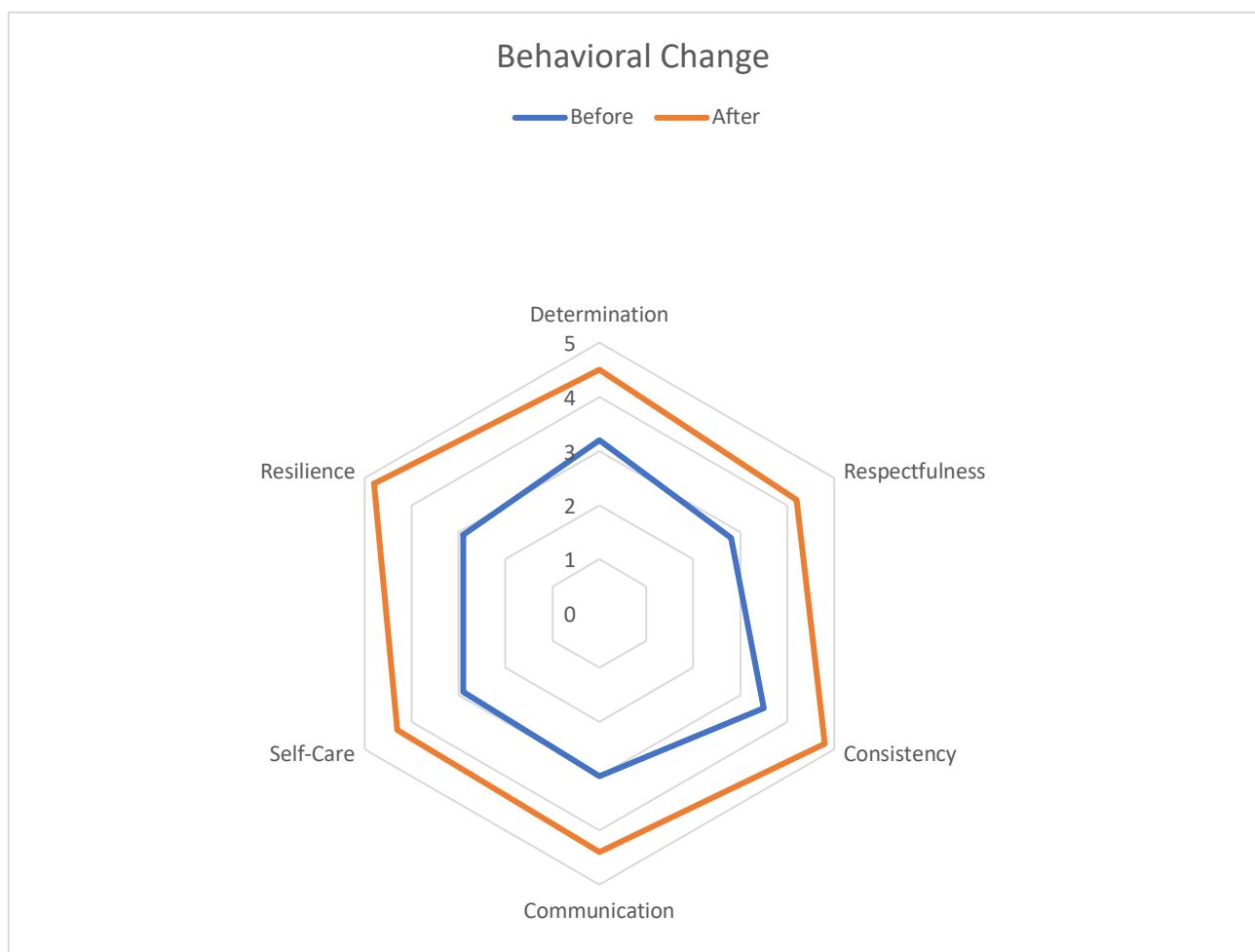


Figure 8. Behavioural change in students

Effectiveness of SMARTlearner Training Program

A Paired t test has been conducted to evaluate the effectiveness of the training program by comparing students' performance before and after the training. Since the same group of students was assessed at two points in time the paired t-test helps determine whether the observed improvement in numeracy scores is statistically significant and not due to random variation.

Based on Numeracy Skills

Table 3. T-tests based on Numeracy Skills

Paired Samples T-Test

			statistic	df	P
Baseline Score Numeracy	End-line Score Numeracy	Student's t	-25.3	65.0	<.001

Note. $H_a: \mu_{\text{Measure 1} - \text{Measure 2}} \neq 0$

Descriptive

	N	Mean	Median	SD	SE
Baseline Score Numeracy	66	4.98	5.00	3.14	0.387
End-line Score Numeracy	66	35.20	35.00	10.83	1.333

The paired samples t-test results reveal a highly significant improvement in students' numeracy performance following the training intervention. The average baseline score of 4.98 increased dramatically to 35.20 at end-line evaluation, indicating a substantial enhancement in mathematical understanding and application. This large difference, confirmed by a $t(65) = -25.3, p < .001$, demonstrates that the training program had a powerful impact on strengthening students' numeracy skills. The improvement reflects not only better grasp of numerical concepts but also the effectiveness of the structured learning approach, interactive teaching methods, and consistent practice opportunities provided during the training. These findings highlight the critical role of targeted educational interventions in transforming foundational skills, empowering learners with greater confidence, problem-solving ability, and readiness for higher academic challenges.

Based on Learning Skills

Table 4. T-tests based on Learning Skills

Paired Samples T-Test

			statistic	df	P
Baseline Score Learning Skills	End-line Score Learning Skill	Student's t	-25.6	66.0	<.001

Note. $H_a: \mu_{\text{Measure 1}} - \mu_{\text{Measure 2}} \neq 0$

Descriptives

	N	Mean	Median	SD	SE
Baseline Score Learning Skills	67	22.1	19.8	10.9	1.33
End-line Score Learning Skill	67	66.6	66.5	15.9	1.94

The results of the paired samples t-test for learning skills reveal a statistically significant improvement in students' performance following the training ($t(66) = -25.6, p < .001$). The mean score increased substantially from 22.1 at baseline to 66.6 at endline, indicating a marked enhancement in learning abilities. This significant difference demonstrates that the training intervention was highly effective in strengthening students' learning skills. The structured training program provided students with opportunities to develop cognitive, analytical, and problem-solving capabilities, fostering greater engagement and retention. Overall, these findings highlight the transformative impact of the training in equipping students with essential academic competencies and confidence to apply their learning effectively.



Overall Summary

The analysis provides compelling evidence that the academic enhancement program has contributed significantly to student learning outcomes across the participating schools. Improvement trends are observed both in high- and low-performing cohorts, indicating that the interventions are inclusive and equitable.

The program has strengthened essential cognitive and analytical abilities, particularly in numeracy, comprehension, and logical reasoning. The growth observed in auditory and memory retention skills further highlights improvements in concentration and learning engagement.

To sustain this positive trajectory, the following recommendations are proposed:

- Continue data-driven monitoring of student progress at periodic intervals.
- Strengthen teacher capacity building in differentiated instruction methods.
- Integrate socio-emotional learning (SEL) components for holistic growth.
- Scale the program across additional schools to amplify its impact.

The report concludes that the program has successfully enhanced core academic skills and cognitive abilities, fostering a culture of continuous learning. Sustained mentorship and focused pedagogical innovation can further consolidate these achievements and ensure enduring educational transformation.

SCMS Center for Socio-Economic Research (SCENSER)

SCENSER, the research, consultancy and training division of SCMS Group, established in 2003, is an initiative with thrust on research on areas of high Socio-Economic relevance. The center undertakes research studies, market surveys, feasibility studies, management consultancy and human resource development and training activities in India and abroad, and execute through the various group institutions. The Research Division spans a wide range of socio-economic areas, driven by the commitment to making a meaningful impact. SCENSER specializes in offering tailored, innovative solutions to a diverse range of socio-economic challenges. Recognized for expertise in management consultancy, strategic planning, impact assessments, feasibility studies and market surveys, the center has a track record of successful global and local collaborations. Providing services to a diverse range of partners and collaborators across India and globally, SCENSER focuses on creating impactful outcomes through collaborative approach, ensuring effective, sustainable and context-specific solutions. SCENSER also conducts in-depth studies on the interplay between social and economic factors, examining their impact on individuals, communities, and society. Through comprehensive analysis and data-driven insights, the center provides valuable information for policy-making, resource allocation, and the development of effective strategies to address socio-economic challenges.

This impact assessment report has been prepared by:

Dr. Meera M S

Associate Professor & Head- Research Initiatives

SCMS School of Technology and Management

SCMS Center for Socio-Economic Research (SCENSER)

SCMS campus, Prathap Nagar, Muttom, Aluva Kochi- 683106, Kerala.

Tel: +91 484 2628000 ; Email: scenser@scmsgroup.org; web: scmsgroup.org/scenser



SCMS Center for Socio-Economic Research (SCENSER)

SCMS campus, Prathap Nagar, Muttom,
Aluva Kochi- 683106, Kerala.

Tel: +91 484 2628000, Email: scenser@scmsgroup.org
web: scmsgroup.org/scenser