



**Project TARA**

# Impact Assessment Study Report

Independent evaluation by



Project Implementation By







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## Foreword



**Ashish Jhalani**  
Global CEO & MD, India,  
Square Panda

It is with great pride that I introduce this impact assessment report of Project TARA, a testament to the transformative potential of early childhood education when paired with innovative, research-backed solutions. Project TARA represents Square Panda's unwavering commitment to building foundational literacy, numeracy, and life skills in young children, especially those in underserved communities.

The insights captured in this report showcase the remarkable journey of children in Haridwar's Anganwadi centers, progressing from foundational learning gaps to achieving higher developmental milestones. This success is a result of

close collaboration with the local administration, the tireless efforts of Anganwadi workers, and the unwavering dedication of the Square Panda team.

As we look to the future, this report serves as both an affirmation of what is possible and a reminder of the immense potential that still lies untapped. Our mission continues to be creating meaningful and scalable solutions that empower children, educators, and communities to succeed. We hope this report inspires educators, policymakers, and stakeholders to join us in expanding the impact of Project TARA across India.





## Foreword



**Andre Agassi**  
Tennis Legend, Chairman and Founder-  
The Andre Agassi Foundation for Education,  
& Chairman of the Board-Square Panda

At Square Panda, we believe education is the greatest equalizer, capable of breaking down barriers and opening doors for every child. Project TARA embodies this vision, focusing on empowering children at the most critical stage of their development—early childhood.

The findings in this impact assessment are not just numbers and graphs; they represent real stories of progress, hope, and transformation. Seeing the measurable improvement in learning outcomes for children in Haridwar validates the hard work and innovation that went into this initiative.

I am deeply grateful to the district administration, the dedicated

Anganwadi workers, and the passionate Square Panda team for their commitment to making a difference. This project reinforces our belief in the power of partnerships and innovative learning tools to address foundational gaps in education.

As we celebrate these milestones, we are reminded that this is just the beginning. Together, we can take this model to many more regions, ensuring that every child has the opportunity to dream, learn, and succeed. I hope this report inspires you as much as it inspires us to continue this important work.





## Acknowledgement



**Prateek Jain IAS**  
**Managing Director, SIIDCUL**  
**Direct general, Industries, Uttarakhand**  
**Ex-CDO, Haridwar**

We extend our heartfelt gratitude to IAS Prateek Jain, the former Chief Development Officer of Haridwar, for his visionary leadership and pivotal role in conceptualizing Project TARA. His clear vision for transforming early childhood care and education guided every aspect of the project. Mr. Jain's active engagement—from conducting feedback sessions with parents, teachers, and Anganwadi workers to making frequent site visits—was instrumental in ensuring the project achieved real, meaningful impact. He championed grassroots support, even galvanizing the gram panchayats to actively participate. His close monitoring and invaluable guidance ensured quality execution, setting a robust foundation for Project TARA to become a model of excellence in early education.





## Acknowledgement



**Akanksha Konde IAS**  
**Chief Development Officer**  
**Haridwar District, India**

We are deeply grateful to IAS Akanksha Konde, the current Chief Development Officer of Haridwar, for her invaluable support in steering Project TARA toward its next phase. Her leadership introduced a theme-based approach that enriched the program's structure and objectives. Ms. Konde provided critical inputs for the design and development of the AnganGyan application—an innovative ECCE learning and monitoring system for Anganwadi workers. Her strategic guidance helped us refine the project's vision, ensuring sustainable outcomes and a roadmap for future impact. Her ability to build on the foundation laid by her predecessor while paving the way for further advancements has been truly commendable.





# Acknowledgement

We sincerely thank Ms. Sulekha Sehgal, the District Program Officer of Haridwar, along with the CDPOs and Anganwadi supervisors, for their tireless efforts in ensuring the day-to-day success of Project TARA. Their commitment to ground-level implementation was vital in translating the project's vision into reality. By coordinating with Anganwadi workers, organizing training sessions, and ensuring seamless delivery of project components, they played an indispensable role in the program's success. Their dedication to supporting our team and providing access to the necessary resources and networks made it possible to reach every corner of the district. Their unwavering support exemplifies the strength of teamwork in achieving transformational change.

We would also like to acknowledge the invaluable guidance and support from the NITI Aayog Team. Their strategic direction and insights have been instrumental in shaping the program and driving its impact.

## NITI Aayog Team

<b>Mr. Suman Berry</b> Vice Chairman, NITI Aayog	<b>Lt. Col Updesh Kumar Sharma</b> Joint Advisor, NITI Aayog	<b>Ms. Sonia Pant</b> Program Director, Education
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## DPO & CDPO



**Smt. Sulekha Sehgal**  
DPO Haridwar



**Smt. Varsha Sharma**  
CDPO - Bahadrabad 2nd



**Smt. Preeti Bhandari**  
CDPO - Bahadrabad 1st



**Mr. Gyanendra Singh**  
CDPO - Bhagwanpur



**Mr. Dev Singh**  
CDPO - Roorkee 1st



**Mr. Dharmbeer Singh**  
CDPO - Roorkee 2nd



**Mr. Sonu Kumar**  
CDPO - Narsan

## Supervisors

<b>Bahadrabad 1st</b>	Gayatri Pant Nandi Sharma	Gaudi Kasik Shitla Rani	Sayog Lata Saroj Bala
<b>Bahadrabad 2nd</b>	Gitika Ragni Joshi	Neelam Gupta Kusum Lata	
<b>Roorkee 1st</b>	Puspa Shani Kiran Lata Sanjesh	Aneeta Urmila Devi Umesh Diman	Aneeta Rani Bablesh Rekha
<b>Roorkee 2nd</b>	Rakhi Minakshi	Suneeta Bharti Laxmi Yadav	Salma Shanshilanta
<b>Bhagwanpur</b>	Sarla Devi Gangotri Bhandari Sangeeta Devi	Anshu Saini Kalpana Deweli Sonia Puri	Babita Rani Ruby Saini Poonam Rani
<b>Narsan</b>	Suman Tyagi Archana Sharma AnjuDevi	Menka Rani Rekha Tagore Santosh Bala	Santosh Devi Akshya Rani Rajesh Verma
			Anita Devi Geeta Rawat Reena Bindola Sudesh Devi



## Acknowledgement

We extend our heartfelt gratitude to the Parents, Anganwadi center workers, and Children who participated in this impact study for Project TARA. Their time, insights, and openness made this research possible. We deeply appreciate the support of the District administration and Anganwadi supervisors, whose facilitation enabled smooth interactions with communities on the ground.

A special thanks to the dedicated field researchers who carried out this study with diligence and care, ensuring the highest quality of data collection. Without their effort and commitment, this research would not have been possible.

CRY is grateful for the opportunity to contribute to this important work.





## Executive Summary

This report outlines the impact of **Project TARA**, a 10-month initiative implemented by **Square Panda India**, aimed at transforming Anganwadis into comprehensive centers for **care, health, nutrition, and early learning**. The project focuses on improving **learning outcomes**, fostering **holistic child development**, and enhancing **community engagement** through a combination of **pedagogical innovation, teacher training, and on-ground monitoring**. Aligned with **NEP 2020**, the project utilized a **blended learning approach**, integrating **digital tools** and **physical resources** along with **play-based activities** and **health and nutrition practices** to support the development of children aged 3–6 years.

The core of **Project TARA** was **capacity building** for Anganwadi workers through a comprehensive **training program** that focused on modern teaching techniques, child assessments, and the use of digital resources like the **Square Panda Akshar App**. On-ground **coordinators** conducted **regular visits** to monitor classroom

practices, provide **guidance** to workers, and ensure that **learning outcomes** and **child assessments** were consistently implemented.

By fostering collaboration between **Anganwadi workers, coordinators, and parents**, the project created a **sustainable** and **scalable** model for improving early childhood education across Anganwadis. The initiative established a framework for continuous **learning, assessment, and feedback**, contributing to **better learning outcomes** and **healthier children**.

The findings in this report offer a comprehensive understanding of the impact of **Project TARA** on children's overall development. These insights will inform future improvements and the scaling of early childhood education initiatives, contributing to the broader goal of enhancing **early learning outcomes** and **child development** across Anganwadis.





# Executive Summary

## The objective of the study is to:



Evaluate the impact of Project TARA on children's learning outcomes and developmental progress.



Compare baseline and endline data to identify changes across developmental domains.



Assess the effectiveness of interventions in enhancing foundational skills and school readiness.



Highlight factors influencing progress and gaps needing further attention.



Provide actionable insights for scaling and improving early childhood education strategies.



Ensure sustainable improvements in learning outcomes through targeted interventions.





# Executive Summary

## Research Approach:



A quasi-experimental approach was adopted to assess the impact of early years interventions. This approach allows for comparing groups with and without the intervention and aims to measure the effect of the intervention.

## Study Groups:



### Treatment Group:

Children who received the intervention.

### Control Group:

Children who did not receive the intervention.

## Baseline and Endline Evaluations:



These were conducted to measure the outcomes before and after the intervention.

## Comparative Analysis:



The outcomes of the treatment group were compared with those of the control group to assess the effectiveness of the interventions.

## Sampling Method:



Random sampling was used to select participants, ensuring unbiased selection and representativeness.

## Study Scope:



The study covered **26** Anganwadi centers across six blocks in Haridwar.

## Assessed Domains:



PSED (Personal, Social, and Emotional Development)  
Language (English)  
Cognitive (Numeracy, EVS)  
Physical Development  
Creative Development

## Learning Levels:



**E - Emerging**

**D - Developing**

**A - Advancing**

**P - Proficient**

## Sample Size:



Baseline: **251** children (**147** Treatment, **104** Control).

Endline: **164** children (**103** Treatment, **61** Control).





# Executive Summary



## Significant Improvement in Learning Levels

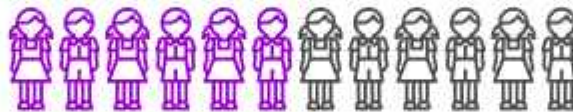
**97%** of children in the **Treatment group** moved to higher learning categories (Advancing & Proficient), compared to only **55%** in the **Control group**.

### Treatment Group



**97%**

### Control Group



**55%**

## Domain-Wise Gains



### Language Development:

Proficient learners increased from **2% to 55%** in the **Treatment group** and **0.7% to 3%** only in the **Control group**.

### Treatment Group



**2%**

**55%**

### Control Group



**0.7%**

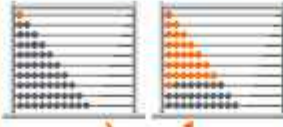
**3%**



### Numeracy:

Proficient learners grew from **1% to 53%** in the **Treatment group** and **1.2% to 8%** in the **Control group**.

### Treatment Group



**1%**

**53%**

### Control Group



**1.2%**

**8%**



### Personal Social and Emotional Development:

**72%** of children in the **Treatment group** and **5%** in the **Control group** reached Proficient Learning Level

### Treatment Group



**72%**

### Control Group



**5%**



# Executive Summary

## Skill-Specific Improvements



### Personal Hygiene:

64% improvement in the Treatment group, compared to 3% in the Control group.



### Running Skills:

72% of children in the Treatment group improved, versus 34% in the Control group.



### Writing Skills:

45% progress in the Treatment group, compared to 5% in the Control group.

#### Treatment Group



64%

#### Control Group



3%

#### Treatment Group



72%

#### Control Group



34%

#### Treatment Group



45%

#### Control Group



5%



### Gender Equality in Outcomes

- Boys (74%) and girls (65%) in the Treatment group demonstrated significant progress, while in the control group, only (7%) of boys and (6%) of girls showed improvement.
- Minimal differences between genders indicate the intervention's inclusivity.

#### Treatment Group



75%



65%

#### Control Group



7%



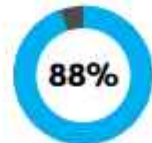
6%



# Executive Summary



## Regional Impact



Bahadradad 2

showed the highest proficiency levels

Blocks like



Bhagwanpur



Slower progress in

**Roorkee 1 and Narsan**

suggesting region-specific challenges.



## Holistic Development



Cognitive



Physical



Creative



Social-emotional skills

Improvements were observed in

showcasing a comprehensive impact.





# Introduction

**Project TARA** is a flagship initiative supported by **NITI Aayog** and implemented by **Square Panda India**, aimed at transforming **Anganwadis** into holistic centers for early childhood care, health, nutrition, and learning. The project seeks to improve early learning outcomes for children in **rural and underserved areas**, focusing on children aged **3-6 years**. The intervention adopts a comprehensive approach, integrating **pedagogical innovation, capacity building, and community involvement** to ensure sustainable improvements in **early childhood education (ECCE)** practices across Anganwadi centers.

Initially, **358 Anganwadi centers** across multiple blocks were assessed to determine their suitability for the intervention. Following a detailed **recce (survey)**, **150 Anganwadi centers** were selected for the intervention, ensuring a **diverse representation** of children and communities.

During the recce, several challenges were identified, particularly low attendance rates at many Anganwadi centers. This posed a significant barrier to the implementation process, as consistent engagement of children and their families is crucial for the success of early childhood education initiatives. Factors contributing to low attendance included limited community awareness, transportation issues, and household responsibilities, which often restricted children's participation. Additionally, the centers faced poor infrastructure, inadequate child-friendly furniture and resources such as books and toys, and a lack of training for Anganwadi workers. Weak mechanisms for monitoring and evaluating learning outcomes further compounded the challenges, underscoring the need for targeted interventions to enhance the effectiveness of the program.

In light of these challenges, the **Theory of Change** behind Project TARA emphasized the need for a **transformational shift** in Anganwadi centers. The intervention focused on **improving infrastructure** through initiatives like **BaLA (Building as Learning Aid)**, a concept that transforms physical spaces into interactive learning environments. This included designing walls, floors, and furniture to serve as teaching aids, ensuring that every aspect of the center contributed to the child's cognitive and emotional development. Alongside infrastructure, the project aimed to **enhance ECCE practices** and **empower Anganwadi workers** with the necessary skills and resources to provide quality education and care to young children.

By addressing these areas, the project aimed to create a **learning-conducive environment** while simultaneously tackling broader needs related to **health, nutrition, and community engagement**. This holistic approach was designed to not only benefit children but also **empower parents** and the broader community, encouraging them to invest in their children's **development and well-being**.

Through **capacity-building activities, on-ground monitoring, and digital resources** integrated with physical learning tools, Project TARA worked to enhance **early learning outcomes** and support the overall development of children. Simultaneously, the project sought to engage parents actively, ensuring their participation in their children's learning journeys.

To assess the intervention's impact, Project TARA conducted a **comparative study** using two cohorts: a **treatment group**, which received the intervention, and a **control group**, which did not.



## Introduction

In the context of early childhood development (ECD), a baseline and an endline assessment was conducted in the Haridwar district of Uttarakhand in Anganwadi centers located in six blocks: Bahadrabad 1, Bahadrabad 2, Bhagwanpur, Narsan, Roorkee 1 and Roorkee 2.

- At baseline, **251** children from **26** Anganwadi centres were assessed—**147** in the Treatment group and **104** in the Control group.
- At the endline, **164** children were assessed—**103** in the Treatment group and **61** in the Control group.

Boys outnumbered girls in both phases, with most children aged between 3–5 years. The sample coverage is given in the table below.

Sample Coverage	Treatment		Control	
	Baseline (N=147)	Endline (N=103)	Baseline (N=104)	Endline (N=64)
Anganwadis	15	15	11	11
Children	147	103	104	61
Boys	77	54	53	28
Girls	70	49	51	33
3–4 years	64	45	47	31
4–5 years	63	42	37	24
5–6 years	20	16	20	6

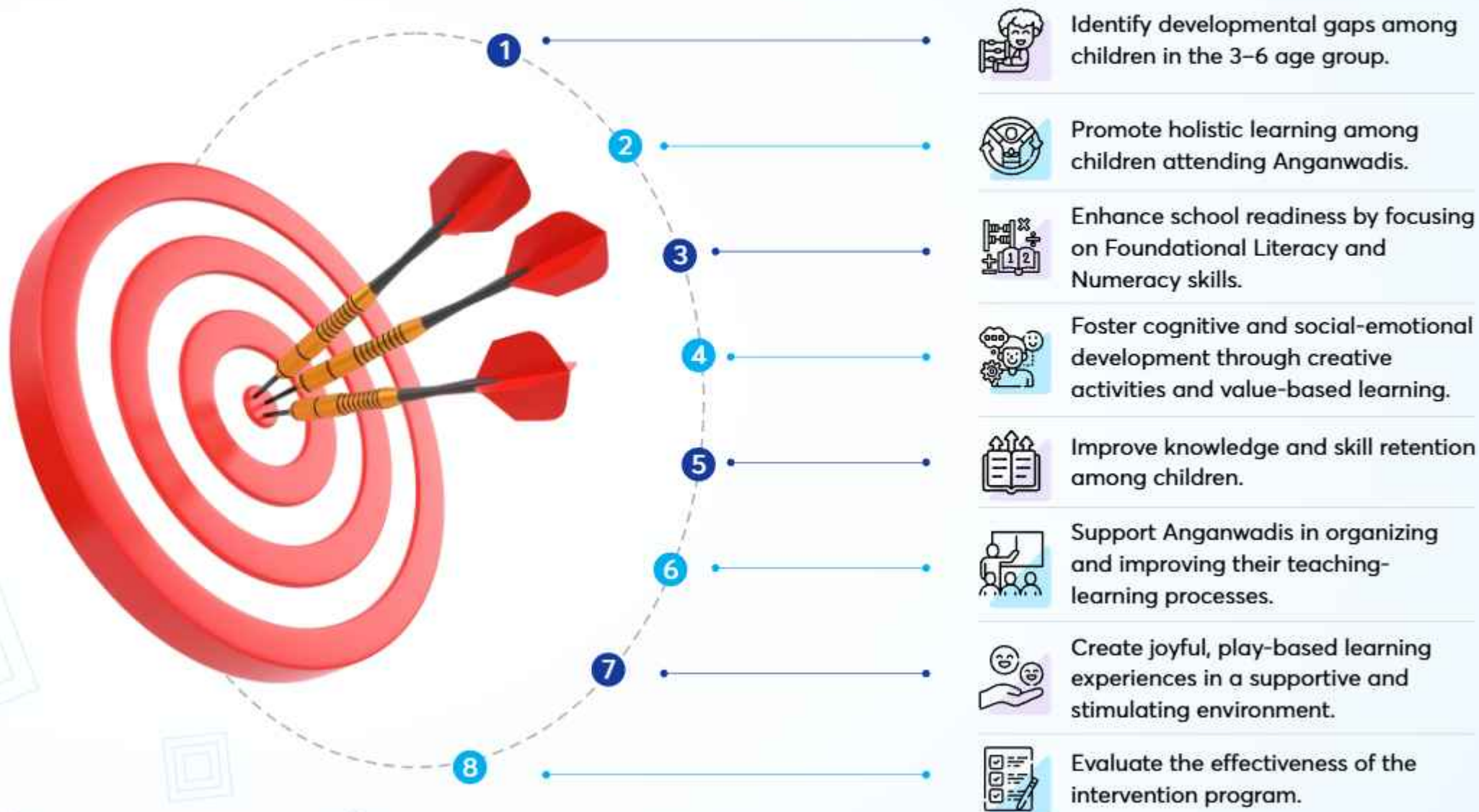
This report compares the baseline and endline findings to evaluate the impact of the ECD intervention, identify changes in developmental outcomes, and draw insights to further strengthen program strategies.





# Objectives of the Program

Project TARA transforms Anganwadis into holistic centers for early childhood development, fostering foundational skills and holistic growth through joyful, inclusive, and play-based learning experiences.





## Sample Profile

Random sampling method was used to collect the data wherein 10% of the number of Anganwadis. 26 Anganwadis were covered in both baseline and endline assessment across 6 blocks.

### Treatment Group

Block	Anganwadi Name
Bahadarabad 1	Hazara Grant
Bahadarabad 2	Adarsh Nagar 1
	Adarsh Nagar 2
	Adarsh Nagar 3
	Adarsh Nagar 4
Bhagwanpur	Dadli
	Tejjpur 1
	Tejjpur 2
Roorkee 2	Badheni Rajputan 5
	Badheni Rajputan 7
	Daulatpur 4
	Daulatpur 5
	Daulatpur 7
	Imalikheda 10
	Imalikheda 13



### Control Group

Block	Anganwadi Name
Bahadarabad 2	Jamalpur-1 (NT)
	Sarai-10 (NT)
	Sarai-9 (NT)
Bhagwanpur	Fakredi 01 (NT)
	Shahpur 05 (NT)
Narsan	Sherpur Khelmau 6 (NT)
	Susadi Khurdh -2 (NT)
Roorkee 1	Bharatpur Salhapur 2 (NT)
	Jalalpur 1 (NT)
Roorkee 2	Badhedirajputana 4 (NT)
	Sahdevpur 2 (NT)



Treatment Group



Control Group



# Assessment Methodology

An assessment tool covering the following developmental domains was used.



## Personal Social and Emotional Development (PSED)

Focuses on building positive relationships, managing emotions, and developing social skills. Children learn to share, cooperate, and express feelings appropriately.



## Language Development - English

Enhances listening, speaking, reading, and writing skills in English. Encourages vocabulary growth, comprehension, and effective communication.



## Cognitive Development - Numeracy

Develops mathematical understanding through counting, number recognition, and problem-solving. Encourages pattern recognition and basic arithmetic.

## Cognitive Development - EVS

Introduces children to environmental concepts, exploring nature and scientific principles. Focuses on observation and understanding the world around them.



## Physical Development

Promotes gross and fine motor skills through physical activities. Enhances coordination, strength, and health awareness.



## Creative Development

Encourages self-expression through art, music, and imaginative play. Fosters creativity, originality, and problem-solving abilities.



In each domain, questions were asked focussing on specific sub-skills; a total of 18 questions were designed. The questions were administered to children from. Four categories were developed to record responses:

**E - Emerging**

**D - Developing**

**A - Advancing**

**P - Proficient**



# Sample Profile

## Treatment group

15 Centres



Boys



52%

Girls



48%

3-4 years - 44% | 4-5 years - 41% | 5-6 years - 16%

## Control group

11 Centres



Boys



46%

Girls



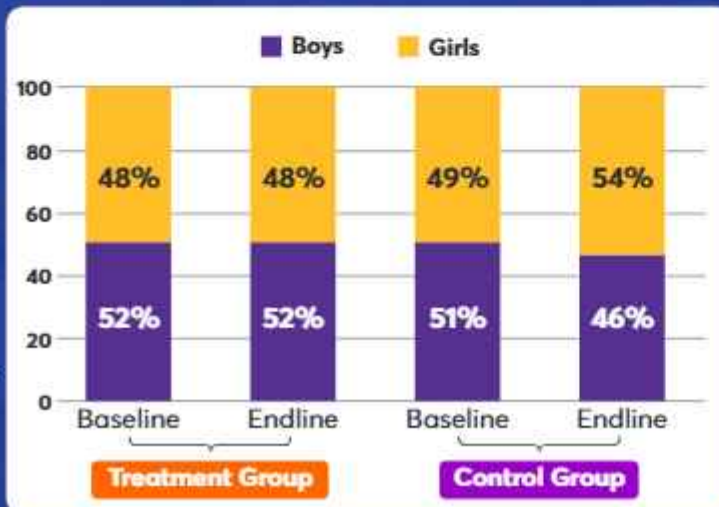
54%

3-4 years - 51% | 4-5 years - 39% | 5-6 years - 10%

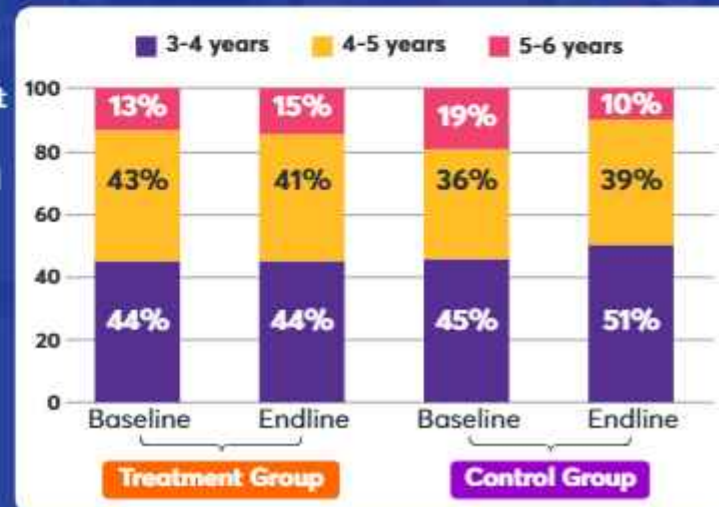
## Gender and Age Distribution of Sample

The following tables and accompanying graphs present the gender distribution of children included in the baseline and endline assessments.

Boys constituted **52%** of Treatment group children in both baseline and endline, while in the control group, boys decreased from **51%** to **46%**, reflecting a slight gender shift towards girls.



In the Treatment group, 3-4-year-olds had the highest participation at **44%** (baseline and endline). In the Control group, 3-4-year-olds also had the highest participation, increasing from **45%** (baseline) to **51%** (endline).

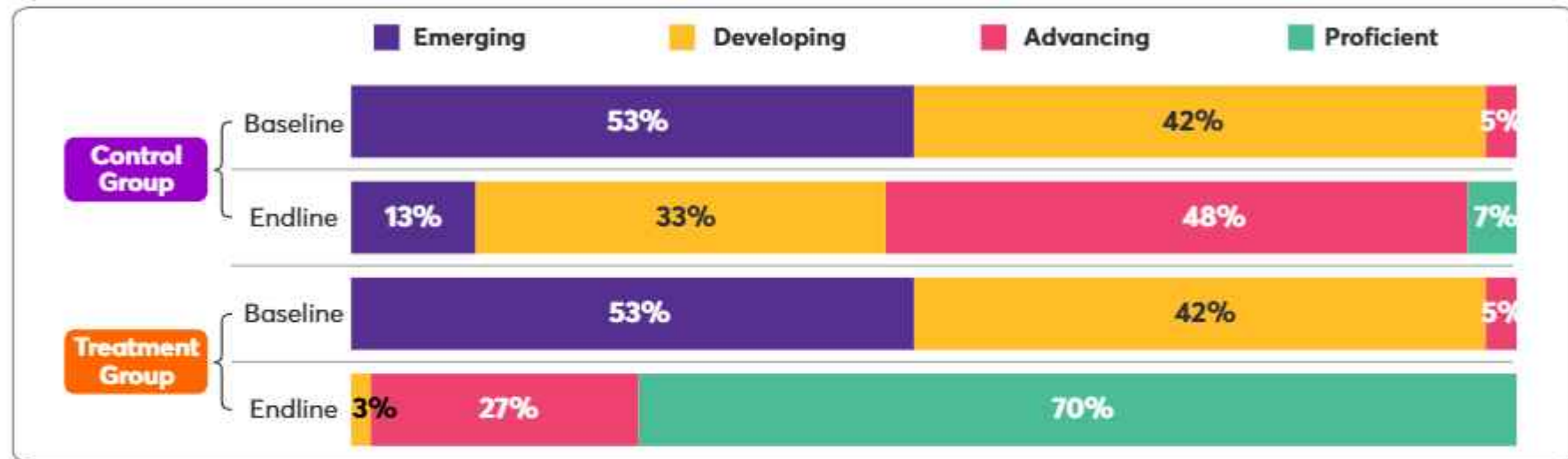




# Comparative Analysis: Overall Difference-in-Differences Analysis with Statistical Significance

The analysis was conducted domain-wise, skill-wise, and later block-wise to examine the distribution of progression. Statistical significance was calculated to determine whether the progress was meaningful.

Overall Distribution of Learning Level Categories (%)



The data in the above graph revealed that:

**Treatment Group Progress:** Children in the Treatment group showed a significant shift to higher learning levels, with **70%** reaching Proficient at the endline, compared to **0%** at baseline.

**Control Group Progress:** The Control group had limited improvement, with only **7%** achieving Proficient at the endline, compared to **0%** at baseline.

## Inference:

The Treatment group outperformed the Control group, especially in Proficient outcomes, demonstrating the intervention's impact.



## Comparative Analysis: Overall Difference-in-Differences Analysis with Statistical Significance

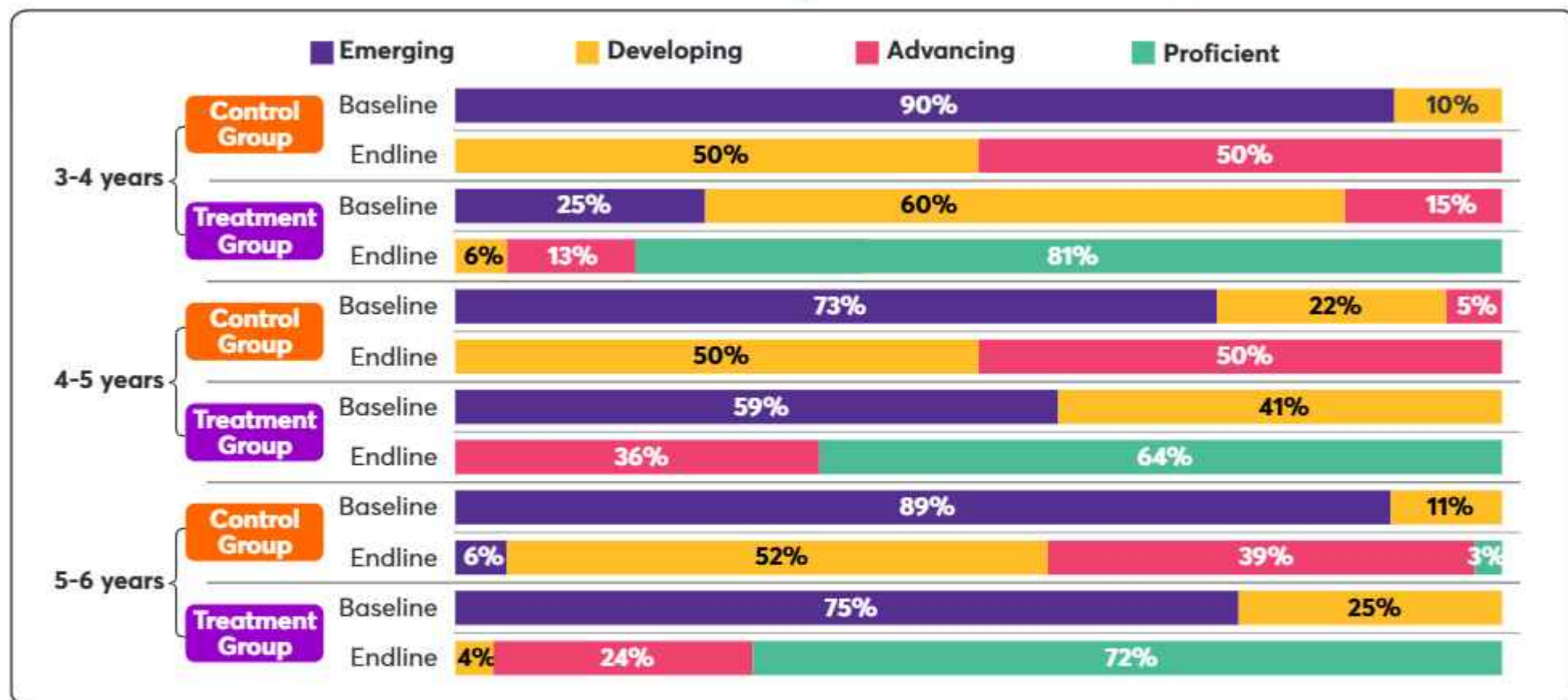
	Treatment			Control			Diff. in Diff.	p value
	Baseline	Endline	Diff. (EL-BL)	Baseline	Endline	Diff. (EL-BL)		
All Students	0%	65%	65%	0%	6%	6%	59%	$P < 0.0001$

The table highlights a **59%** greater improvement in learning outcomes for the Treatment group compared to Control, with statistical significance ( $p < 0.0001$ ), confirming the intervention's effectiveness.





## Comparative Analysis: Age-group-wise Distribution of Learning Levels





## Comparative Analysis: Age-group-wise Distribution of Learning Levels

The data in the above graph revealed that:

### 3-4 Years:

- The treatment group improved significantly, with **81%** reaching Proficient at endline (0% baseline).
- The control group showed no Proficient outcomes, indicating minimal progress.

### 4-5 Years:

- The treatment group recorded **64%** in Proficient at the endline (0% baseline).
- The control group stagnated, with no children in Proficient.

### 5-6 Years:

- The treatment group excelled, achieving **72%** in Proficient at the endline (0% baseline).
- The control group showed limited progress, with only **3%** achieving Proficient.

### Inference:

Across all age groups, the Treatment group outperformed the Control group, with the most notable gains seen in the Proficient category.

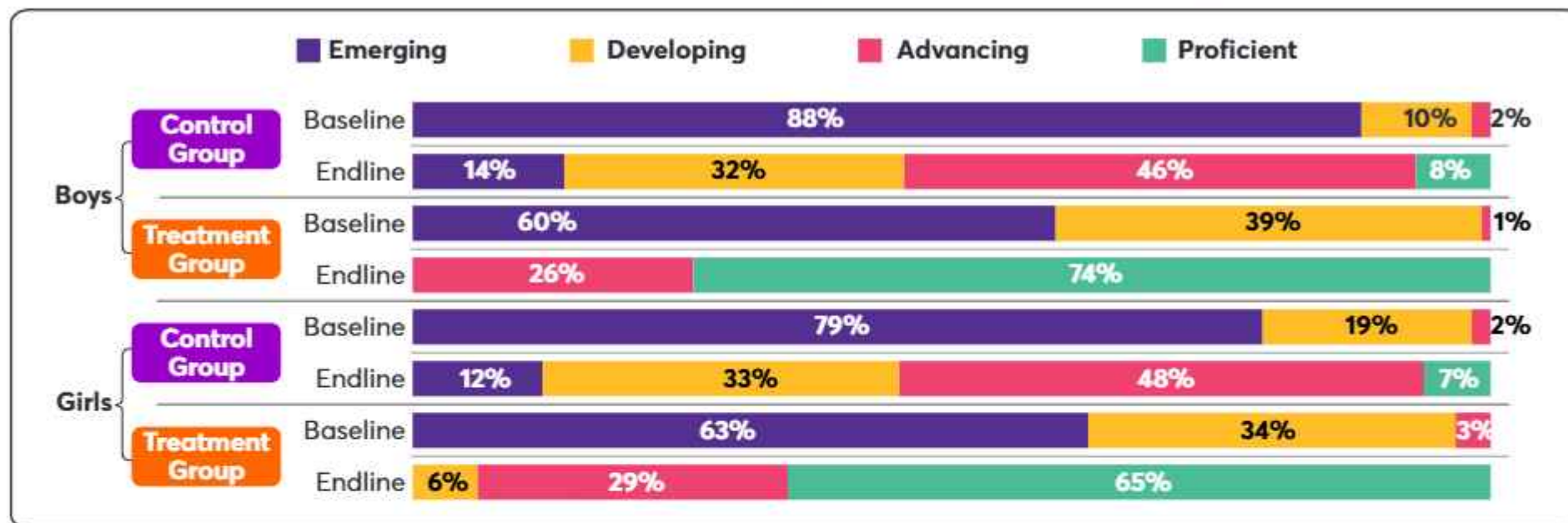
Age-group wise Difference-in-Differences Analysis with Statistical Significance (p-values)

Age Group	Treatment			Control			Diff. in Diff.	p value
	Baseline	Endline	Diff. (EL-BL)	Baseline	Endline	Diff. (EL-BL)		
3-4 years	0%	81%	81%	0%	0%	0%	<b>81%</b>	P < 0.0001
4-5 years	0%	64%	64%	0%	0%	0%	<b>64%</b>	P < 0.0001
5-6 years	0%	71%	71%	0%	3%	3%	<b>68%</b>	P < 0.0001

The Difference-in-Differences analysis reveals a significant improvement in learning outcomes across all age groups in the Treatment group, with **81%** in 3-4 years, **64%** in 4-5 years, and **72%** in 5-6 years. The Control group showed minimal changes, and all differences were statistically significant ( $p < 0.0001$ ) which validates the effectiveness of the intervention.



## Comparative Analysis: Gender-wise Distribution of Learning Levels



The data in the above graph revealed that:

### Girls:

- In the Treatment group, the proportion of girls in *Emerging* decreased from 63% to 0%, while 65% reached *Proficient* at the endline (0% at baseline).
- The control group showed slower progress, with *Emerging* reducing to 12% and only 7% achieving *Proficient*.

### Boys:

- For boys in the Treatment group, *Emerging* reduced from 60% to 0%, and 74% reached *Proficient* at the endline (0% at baseline).
- The control group saw minimal change, with *Emerging* at 14% and only 8% achieving *Proficient*.



# Comparative Analysis: Gender-wise Distribution of Learning Levels

## Inference:

The data indicates that both boys and girls in the Treatment group experienced substantial progress across learning levels. Specifically, the proportion of girls in the Emerging category dropped from 63% at baseline to 0% at the endline, while 65% of them reached the Proficient level, a notable shift from 0% at baseline. In comparison, the Control group showed slower progress, with girls in the Emerging category decreasing from 63% to 12% and only 7% achieving the Proficient level at the endline.

Similarly, boys in the Treatment group demonstrated an impressive improvement. The percentage of boys in the Emerging category fell from 60% at baseline to 0% at the endline, and 74% achieved the Proficient level, compared to 0% at baseline. On the other hand, the Control group saw minimal progress among boys, with the Emerging category reducing from 60% to 14% and only 8% reaching the Proficient level.

These findings highlight that while both genders benefited significantly from the intervention in the Treatment group, boys showed slightly better outcomes in terms of reaching the Proficient level. The reasons for this variance could include differences in engagement levels, responsiveness to intervention methods, and contextual factors like parental involvement or societal expectations. However, these gender-based differences were not statistically significant, suggesting that the intervention was equally effective for boys and girls in principle.

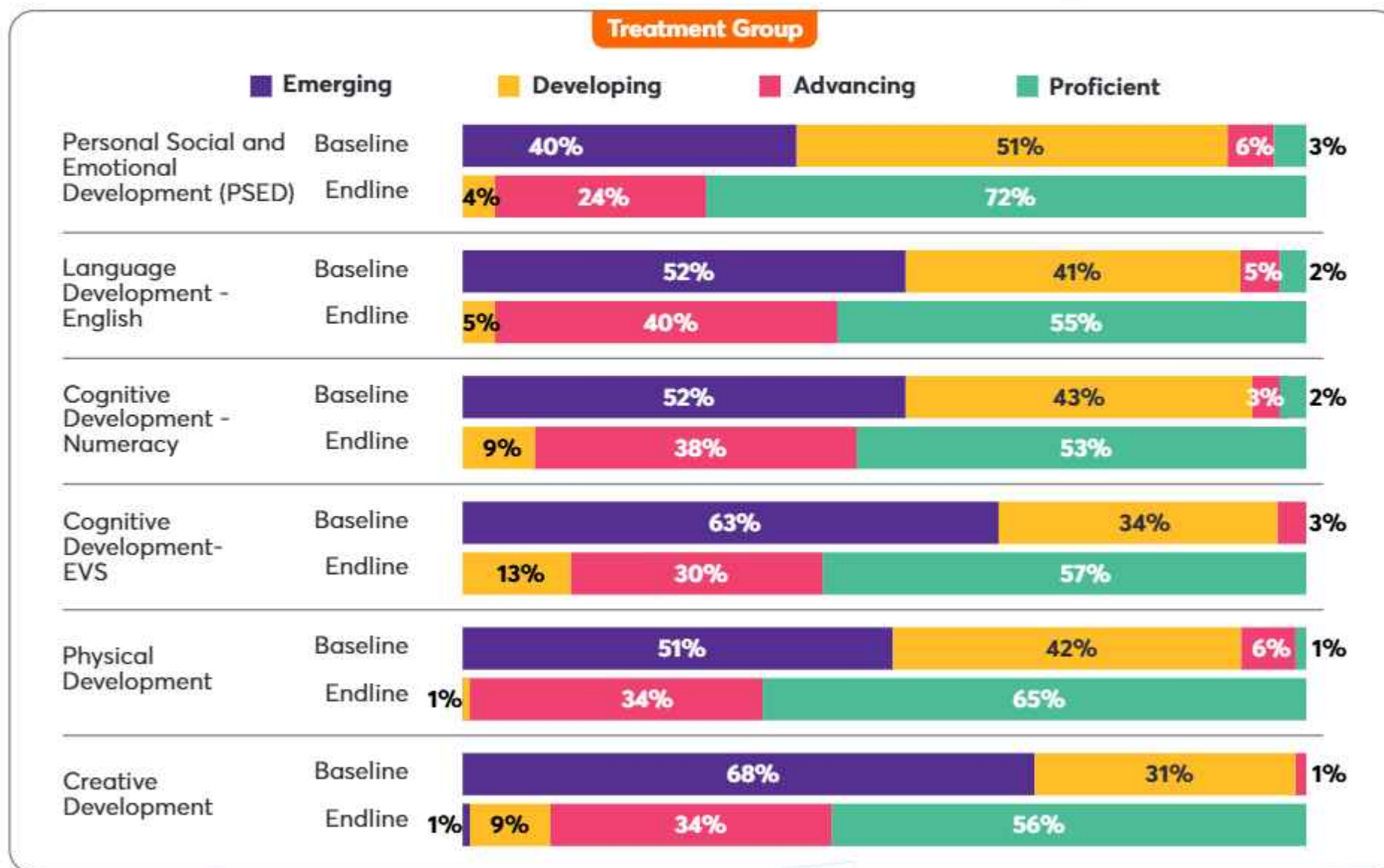
Overall, the data underscores the critical role of targeted interventions in improving learning outcomes across genders. It also emphasizes the need to address any subtle factors that may contribute to differences in engagement or progress among boys and girls to ensure equitable educational outcomes.

Gender-wise Difference-in-Differences Analysis with Statistical Significance (p-values)

Age Group	Treatment			Control			Diff. in Diff.	p value
	Baseline	Endline	Diff. (EL-BL)	Baseline	Endline	Diff. (EL-BL)		
Girls	0%	65%	65%	0%	6%	6%	59%	P < 0.0001
Boys	0%	74%	74%	0%	7%	7%	67%	P < 0.0001

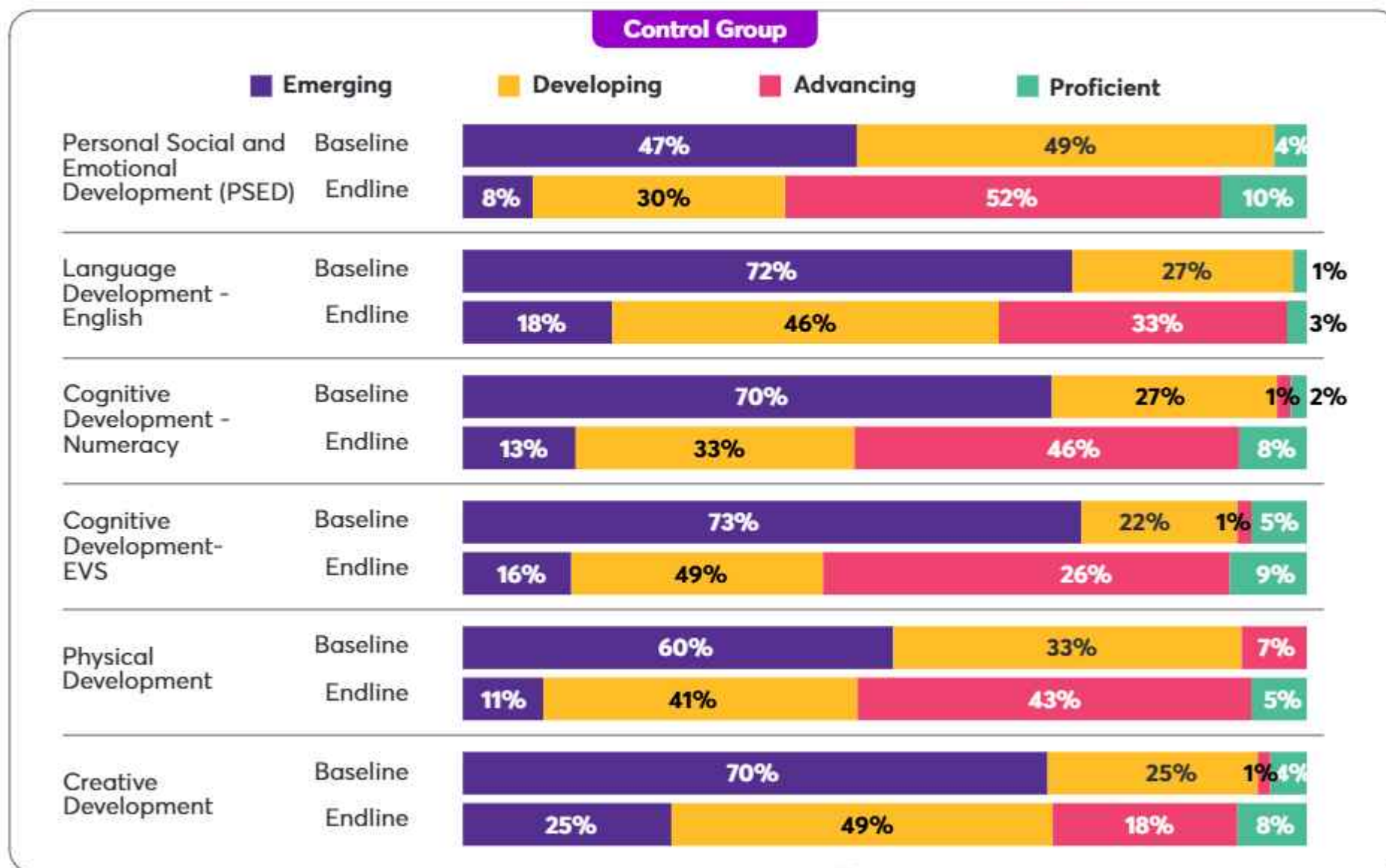
The Treatment group saw significant improvements: 65% for girls and 74% for boys, while the Control group showed minimal change (6% for girls and 7% for boys). The large differences in improvement between the groups, with statistical significance ( $p < 0.0001$ ), suggest that the Treatment had a notable impact, especially in boosting learning outcomes for both genders compared to the Control group.

## Comparative Analysis: Domain-wise Distribution of Learning Levels





# Comparative Analysis: Domain-wise Distribution of Learning Levels



Numbers are rounded

# Comparative Analysis: Domain-wise Learning Progress

## Treatment Group:

- **Personal Social and Emotional Development (PSED):** Significant improvement, with *Emerging* reduced from **40%** to **0%**, and **72%** achieving *Proficient* at endline.
- **Language Development - English:** *Proficient* learners increased to **55%** (baseline: **2%**), with a complete reduction in *Emerging*.
- **Cognitive Development - Numeracy:** *Proficient* category rose to **53%** (baseline: **2%**), while *Emerging* dropped to **0%**.
- **Cognitive Development - EVS:** *Proficient* grew to **57%** (baseline: **0%**), with complete elimination of *Emerging*.
- **Physical Development:** **65%** reached *Proficient* at endline (baseline: **1%**), with a significant reduction in lower categories.
- **Creative Development:** Strong gains, with **56%** achieving *Proficient* and notable drop in *Emerging* **1%**.

## Control Group:

- **Personal Social and Emotional Development (PSED):** Limited progress; *Proficient* increased to **10%** (baseline: **4.3%**), and *Emerging* reduced to **8%**.
- **Language Development - English:** *Proficient* learners increased to only **3%** (baseline: **0.7%**), with **18%** still in *Emerging*.
- **Cognitive Development - Numeracy:** Moderate gains, with *Proficient* increasing to **8%** (baseline: **2%**).
- **Cognitive Development - EVS:** *Proficient* improved to **9%** (baseline: **4.8%**), while **16%** remained in *Emerging*.
- **Physical Development:** **5%** reached *Proficient* at endline (baseline: **6.3%**), showing negligible progress.
- **Creative Development:** Slight gains; *Proficient* increased to **8%** (baseline: **4.8%**), but **25%** remained in *Emerging*.

## Inference:

The Treatment group showed transformative improvements across all domains, with higher proportions reaching *Proficient* and a complete elimination of *Emerging* in most categories. The Control group showed slower and limited progress, with many children still *Emerging*. This underscores the positive impact of interventions in accelerating developmental outcomes.



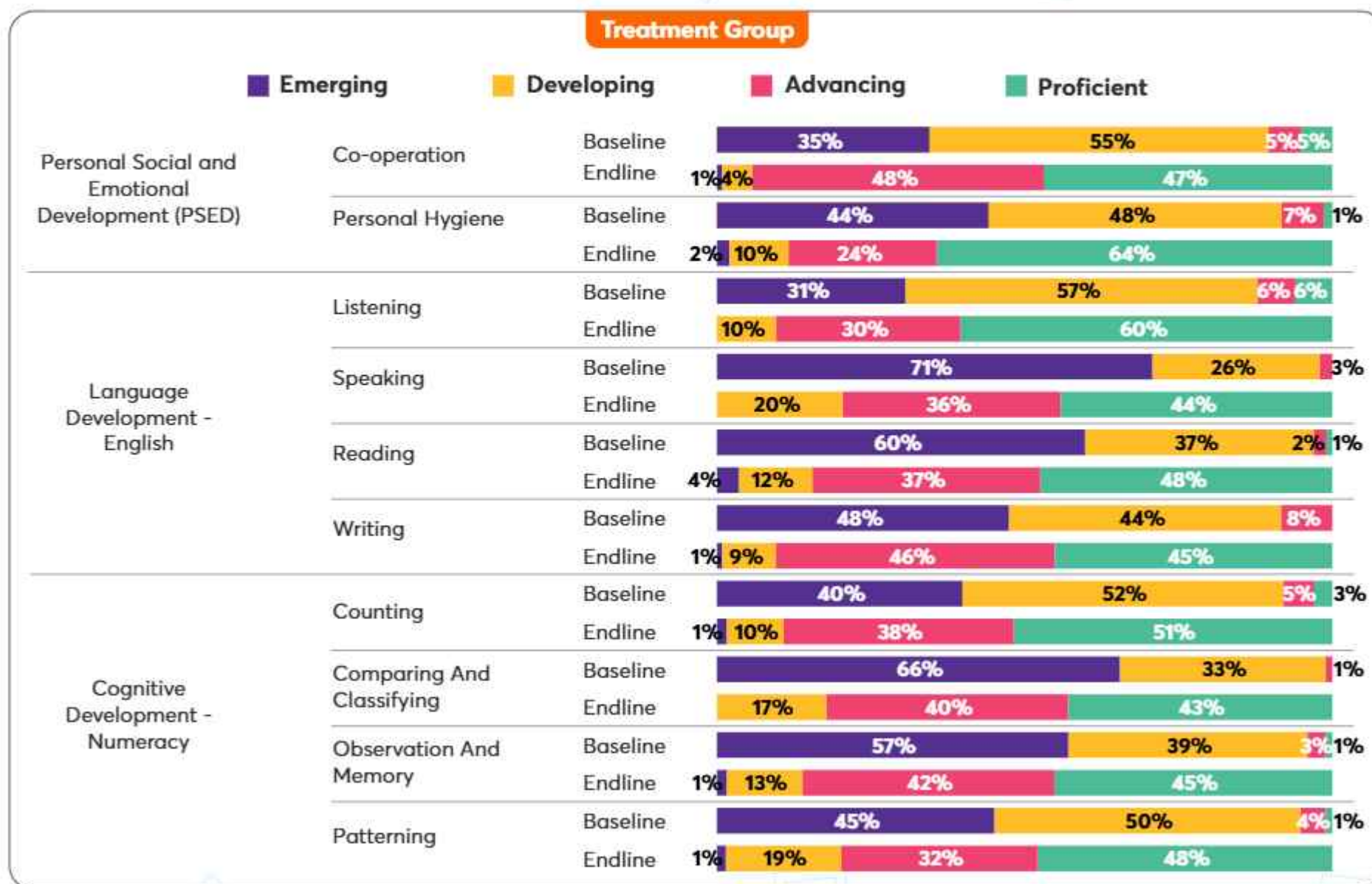
## Comparative Analysis: Domain-wise Difference-in-Differences Analysis with Statistical Significance (p-values)

	Treatment			Control			Diff. in Diff.	p value
	Baseline	Endline	Diff. (EL-BL)	Baseline	Endline	Diff. (EL-BL)		
Personal Social and Emotional Development (PSED)	3%	72%	69%	4.3%	10%	6%	63%	P < 0.0001
Language Development - English	2%	55%	54%	0.7%	3%	3%	51%	P < 0.0001
Cognitive Development - Numeracy	1%	53%	52%	1.2%	8%	7%	45%	P < 0.0001
Cognitive Development - EVS	0%	57%	57%	4.8%	8%	3%	54%	P < 0.0001
Physical Development	1%	65%	64%	6.3%	5%	-1%	65%	P < 0.0001
Creative Development	0%	56%	56%	4.8%	8%	3%	53%	P < 0.0001

The Domain-wise Difference-in-Differences (Diff-in-Diff) analysis highlights significant improvements across all domains in the Treatment group compared to the Control group. Personal Social and Emotional Development (PSED) recorded the highest improvement (**69%**), followed by Cognitive Development in EVS (**57%**) and Physical Development (**64%**). Minimal changes in the Control group reinforce the impact of the intervention, as shown by statistically significant results ( $p < 0.0001$ ).

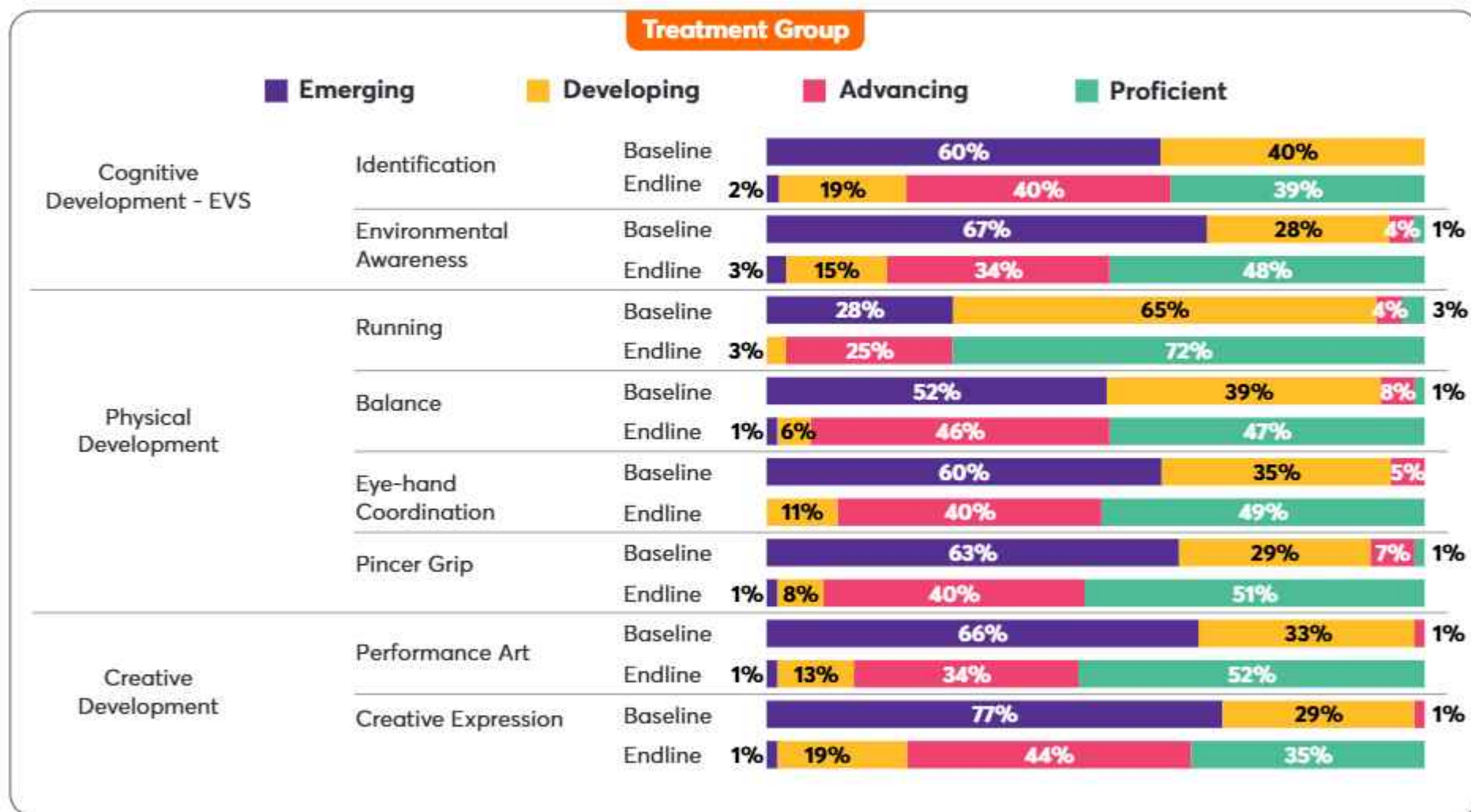


# Comparative Analysis: Skill-wise Distribution of Learning Levels

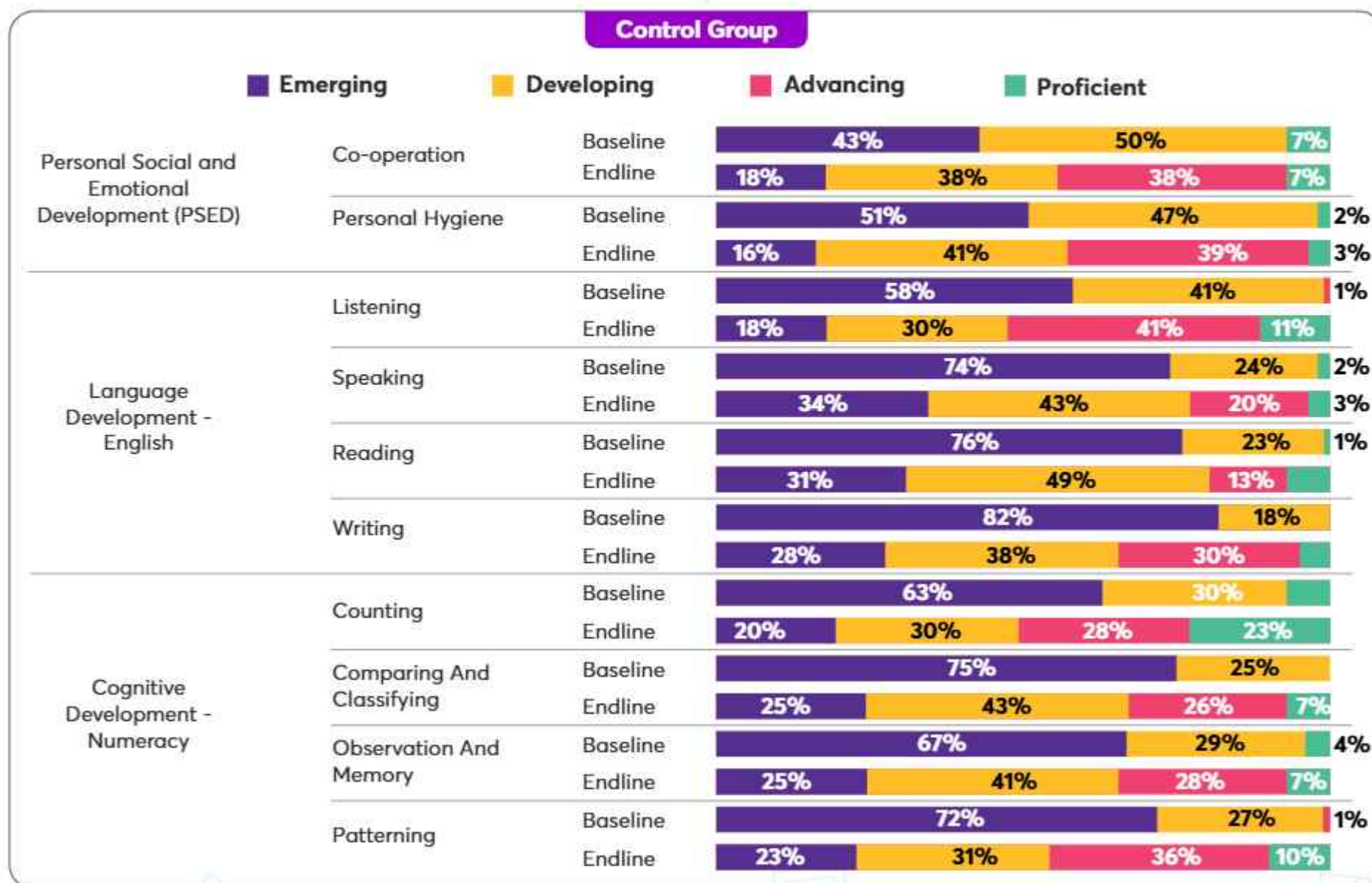




## Comparative Analysis: Skill-wise Distribution of Learning Levels

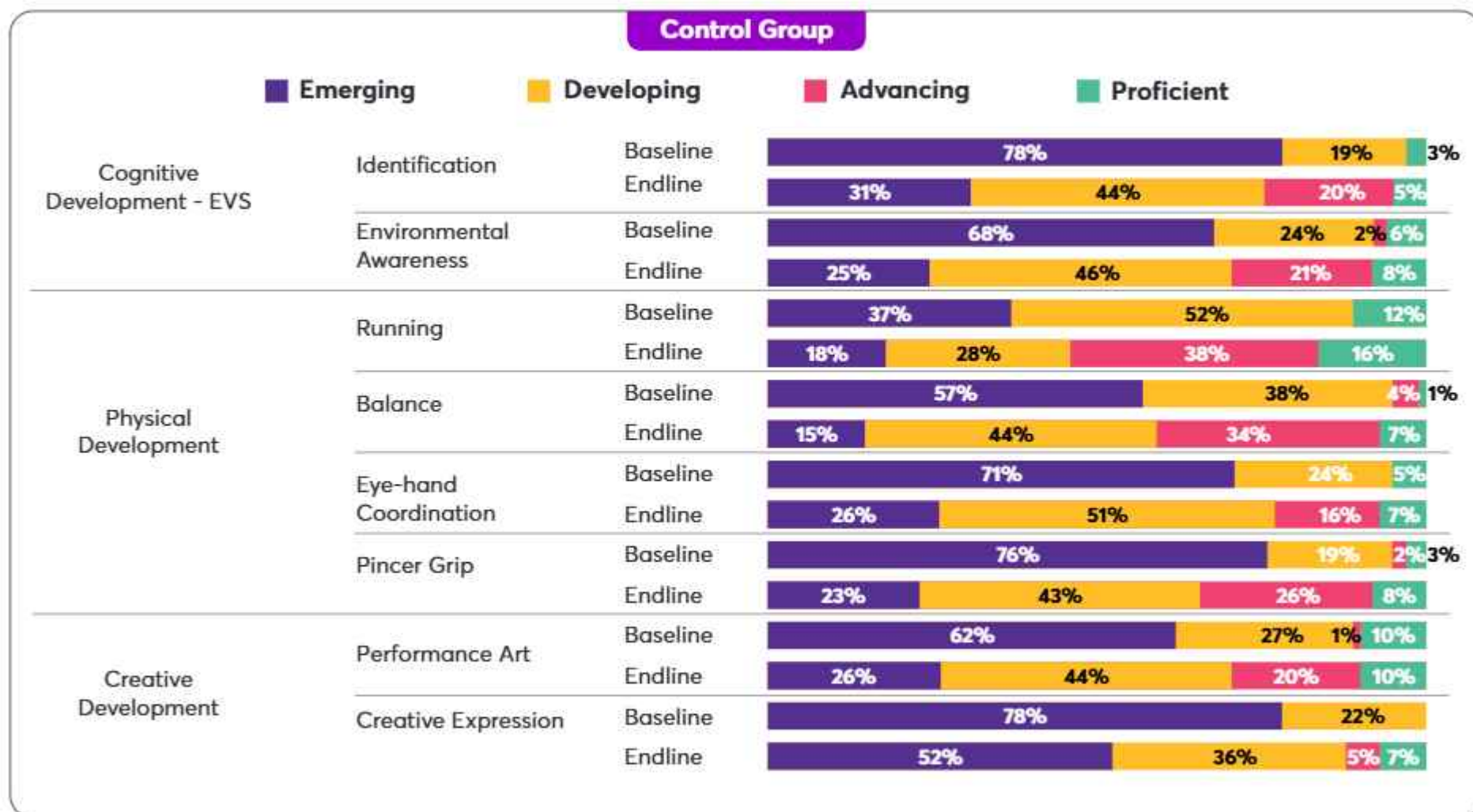


## Comparative Analysis: Skill-wise Distribution of Learning Levels





# Comparative Analysis: Skill-wise Distribution of Learning Levels





## Comparative Analysis: Treatment vs Control Group

The data reveals the following observations:

- Among the treatment group, there was a significant improvement in Personal Hygiene, with **64%** of children reaching higher levels by endline. For control, this improvement was seen for **39%** of children.

At baseline, many children across age groups struggled with maintaining personal hygiene independently. For instance, children in the 3-4 years category needed assistance to follow hygiene routines such as washing hands and using a napkin (Emerging). By endline, a significant proportion of the treatment group independently followed these routines and communicated their needs clearly (Proficient). However, in the control group, children who started at Emerging showed some improvement but still required reminders to follow **hygiene routines** (Developing).

Similarly, in the 4-5 years category, children at baseline attempted hygiene practices like washing hands and brushing teeth but required assistance or reminders (Emerging). By endline, many in the treatment group were independently practicing hygiene habits without reminders (Proficient). In contrast, children in the control group, who also started at Emerging, showed improvement but still needed occasional reminders to maintain hygiene (Developing or Advancing).

For the 5-6 years category, children at baseline needed support to maintain hygiene and self-care (Emerging). By endline, those in the treatment group were independently maintaining hygiene and self-care practices without reminders (Proficient). However, in the control group, children who started at Emerging improved but still needed occasional reminders to practice hygiene habits (Developing or Advancing).

Actual field photos from TARA





## Comparative Analysis: Treatment vs Control Group

- In children from the treatment group, writing skills saw notable progress, with **45%** of children advancing to higher categories. This improvement was **30%** in the control group of children.

At baseline, many children across age groups had limited writing abilities, often relying on scribbling or requiring support for **basic writing tasks** (Emerging).

For 3-4 years, children initially scribbled randomly and needed help to hold and control writing tools (Emerging). By endline, children in the treatment group were able to draw simple shapes and attempt letter-like formations independently (Advancing). However, in the control group, improvement was slower, with children still needing assistance to hold and use writing tools effectively (Developing).

In the 4-5 years category, at baseline, most children could trace letters with guidance but struggled with writing on their own (Developing). By endline, children in the treatment group could write letters independently with improved grip and control (Proficient). In contrast, children in the control group showed some improvement but still required support or reference to write letters accurately (Advancing).

For 5-6 years, children at baseline could copy short words but had difficulty with spacing and alignment (Developing). By endline, many in the treatment group were writing simple sentences with proper letter formation and spacing (Proficient). However, in the control group, children improved but still struggled with consistent letter size and sentence structure (Advancing).



Actual field photos from TARA



## Comparative Analysis: Treatment vs Control Group

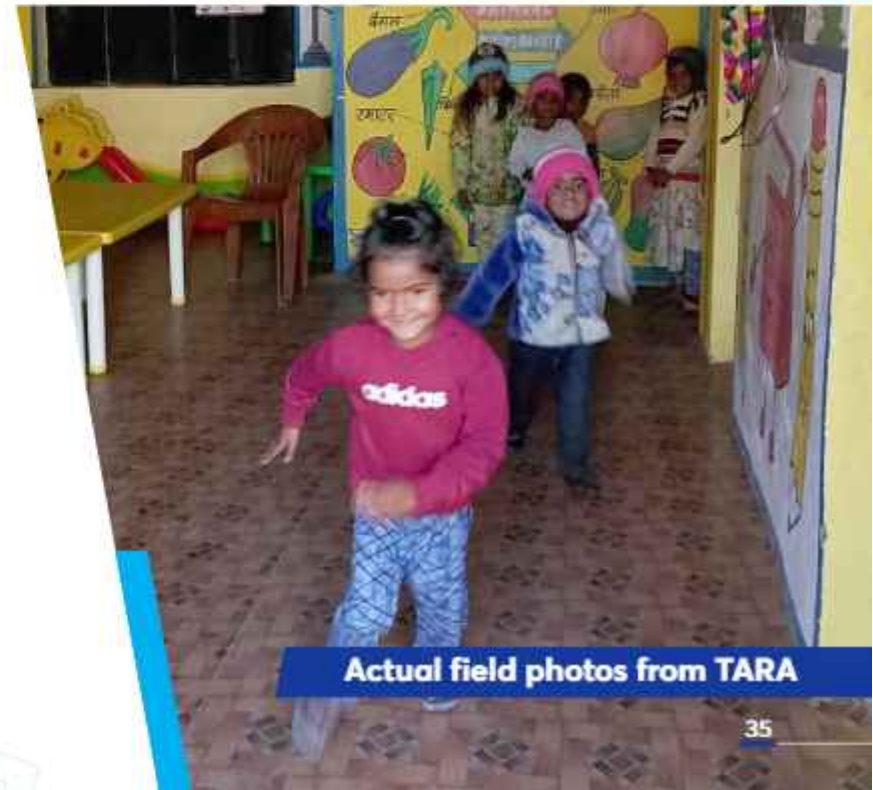
- Running skills improved substantially among treatment group children, with **72%** showing progress, as compared to control group children where it was **34%**.

At baseline, children across different age groups showed varied levels of running skills, with many struggling with balance, coordination, and speed control (Emerging).

For 3-4 years, children initially walked quickly or ran with an unsteady gait, often losing balance and needing support to stop safely (Emerging). By endline, children in the treatment group could run with improved stability, take quick turns, and stop without falling (Advancing). In contrast, children in the control group showed slower improvement, with many still requiring support to maintain balance while running (Developing).

In the 4-5 years category, children at baseline could run short distances but had difficulty maintaining consistent speed and coordination (Developing). By endline, those in the treatment group ran confidently, navigated obstacles, and adjusted speed effectively (Proficient). Meanwhile, children in the control group improved but still struggled with sudden stops and maintaining pace over longer distances (Advancing).

For 5-6 years, children at baseline could run but had difficulty with agility, sudden turns, and sustained speed (Developing). By endline, children in the treatment group demonstrated well-coordinated running, quick directional changes, and endurance for longer distances (Proficient). However, children in the control group showed moderate progress, with many still needing practice in agility and speed control (Advancing).



Actual field photos from TARA



## Comparative Analysis: Treatment vs Control Group

- Regarding performance art, **52%** of children from the treatment group showed improvement in their abilities and this proportion was **10%** among children from the control group.

At baseline, children across different age groups displayed limited ability to express themselves through singing songs and rhymes (Emerging).

For 3-4 years, at baseline, children hesitated to sing songs or rhymes, often requiring encouragement to participate (Emerging). By endline, children in the treatment group confidently sang songs and rhymes with improved vocal expression, rhythm, and memorization (Advancing). By endline, children in the control group showed slower progress, with many still needing guidance to recall lyrics and sing with confidence (Developing).

For 4-5 years, at baseline, children struggled with rhythm, pitch, and focus when singing songs or rhymes, often becoming self-conscious or losing focus (Developing). By endline, children in the treatment group demonstrated improved rhythm, pitch, and expression, singing songs and rhymes with confidence and clarity (Proficient). By endline, children in the control group made modest progress, managing basic rhythm and pitch but still requiring support for full expression and synchronization (Advancing).

For 5-6 years, at baseline, children struggled to express emotions and convey meaning through their singing, often lacking clarity and confidence (Developing). By endline, children in the treatment group sang songs and rhymes fluently, demonstrating expressive vocalization and emotional connection with the lyrics (Proficient). By endline, children in the control group showed moderate progress, with improved vocal performance but still lacking in expressive elements and requiring support to sing confidently (Advancing).

### Inference:

The Treatment group showed greater improvement in various skills, particularly in physical and cognitive areas, while the Control group exhibited more modest progress, especially in creative and environmental development.



Actual field photos from TARA



Skill-wise Difference-in-Differences Analysis with Statistical Significance (p-values)

Skills	Treatment			Control			Diff. in Diff.	p value
	Baseline	Endline	Diff. (EL-BL)	Baseline	Endline	Diff. (EL-BL)		
Co-operation	5%	47%	42%	7%	7%	0%	42%	P < 0.0001
Personal hygiene	1%	64%	63%	2%	3%	1%	62%	P < 0.0001
Listening	6%	60%	54%	0%	11%	11%	43%	P < 0.0001
Speaking	0%	44%	44%	2%	3%	1%	42%	P < 0.0001
Reading	1%	48%	47%	1%	7%	6%	41%	P < 0.0001
Writing	0%	45%	45%	0%	5%	5%	40%	P < 0.0001
Counting	3%	51%	48%	7%	23%	16%	33%	P < 0.0001
Comparing and classifying	0%	43%	43%	0%	7%	7%	36%	P < 0.0001
Observation and memory	1%	45%	44%	4%	7%	3%	41%	P < 0.0001
Patterning	1%	48%	47%	0%	10%	10%	37%	P < 0.0001
Identification	0%	39%	39%	3%	5%	2%	37%	P < 0.0001
Environmental awareness	1%	48%	47%	6%	8%	2%	44%	P < 0.0001
Running	3%	72%	69%	12%	16%	4%	64%	P < 0.0001
Balance	1%	48%	47%	1%	7%	6%	41%	P < 0.0001
Eye-hand coordination	0%	49%	49%	5%	7%	2%	47%	P < 0.0001
Pincer grip	1%	51%	50%	3%	8%	5%	45%	P < 0.0001
Performance Art	1%	52%	51%	10%	10%	0%	52%	P < 0.0001
Creative Expression	1%	35%	34%	0%	7%	7%	27%	P < 0.0001

The Skill-wise Difference-in-Differences analysis reveals notable gains in the Treatment group, with the largest improvements in Running (**69%**), Personal Hygiene (**63%**), and Environmental Awareness (**47%**). Skills like Co-operation and Performance Art also show substantial growth (**42%** and **51%**), respectively). Minimal progress in the Control group reinforces the intervention's effectiveness, confirmed by statistically significant results ( $p < 0.0001$ ).



# Progression of Children from Lower Learning to Higher Learning Levels (Shift Analysis)

## Progression of Children from Lower Learning to Higher Learning Levels (Shift Analysis)

This sub-section shows the proportions of children moving from lower learning categories (*Emerging* and *Developing*) to higher learning categories (*Advancing* and *Proficient*) between baseline and endline for the Treatment and Control groups.

### Treatment Group

- **Shift:** The proportion of children in the lower categories dropped by **92%** (from **95%** to **3%**). A substantial increase of **92%** occurred in the higher categories (*Advancing* and *Proficient*), with a shift from **5%** to **97%**.

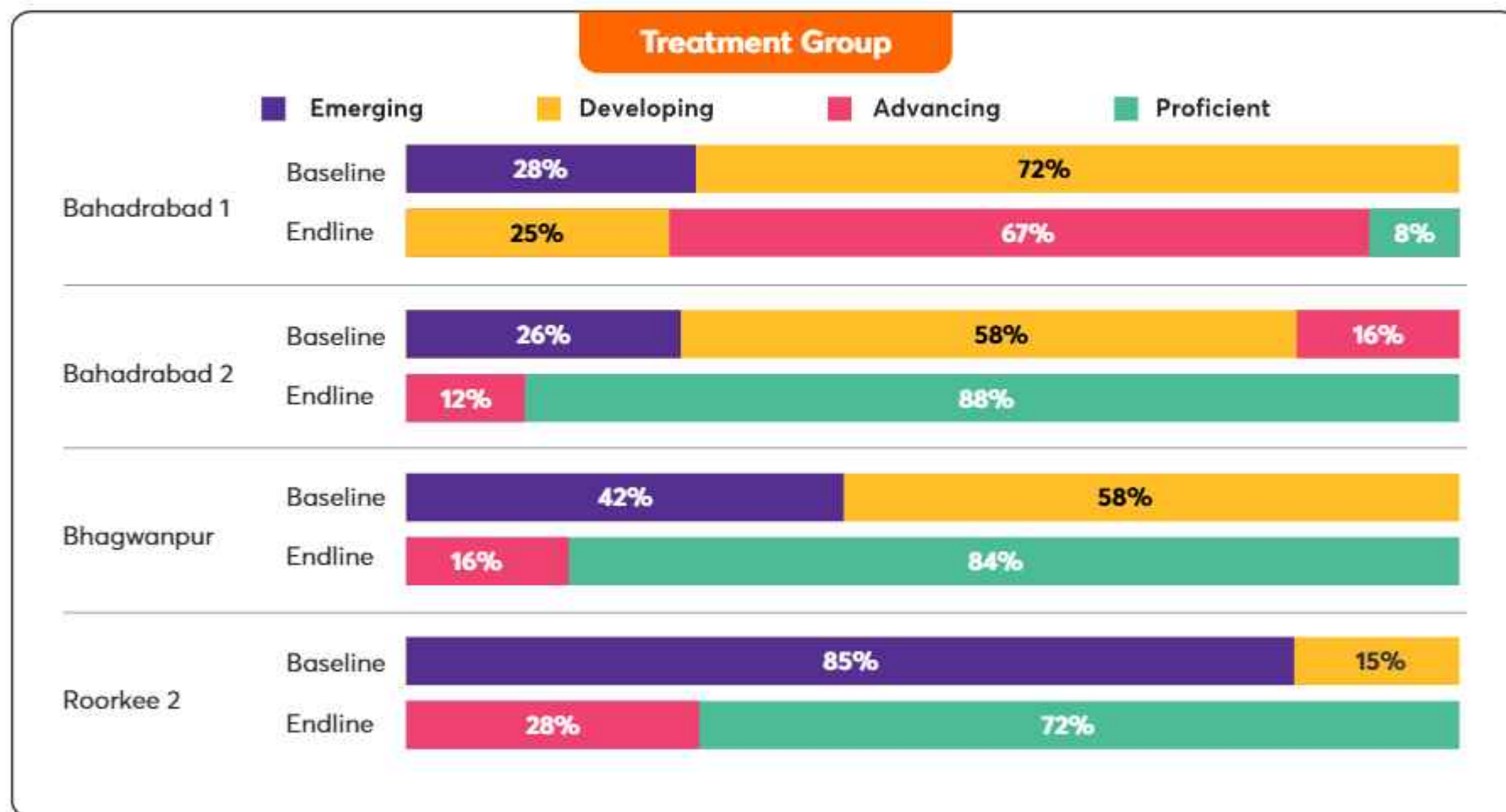
### Control Group

- **Shift:** The lower categories decreased by **49%** (from **95%** to **46%**), and there was a moderate increase in higher categories, from **5%** to **54%**. While the control group showed improvement, the shift was less pronounced compared to the treatment group.



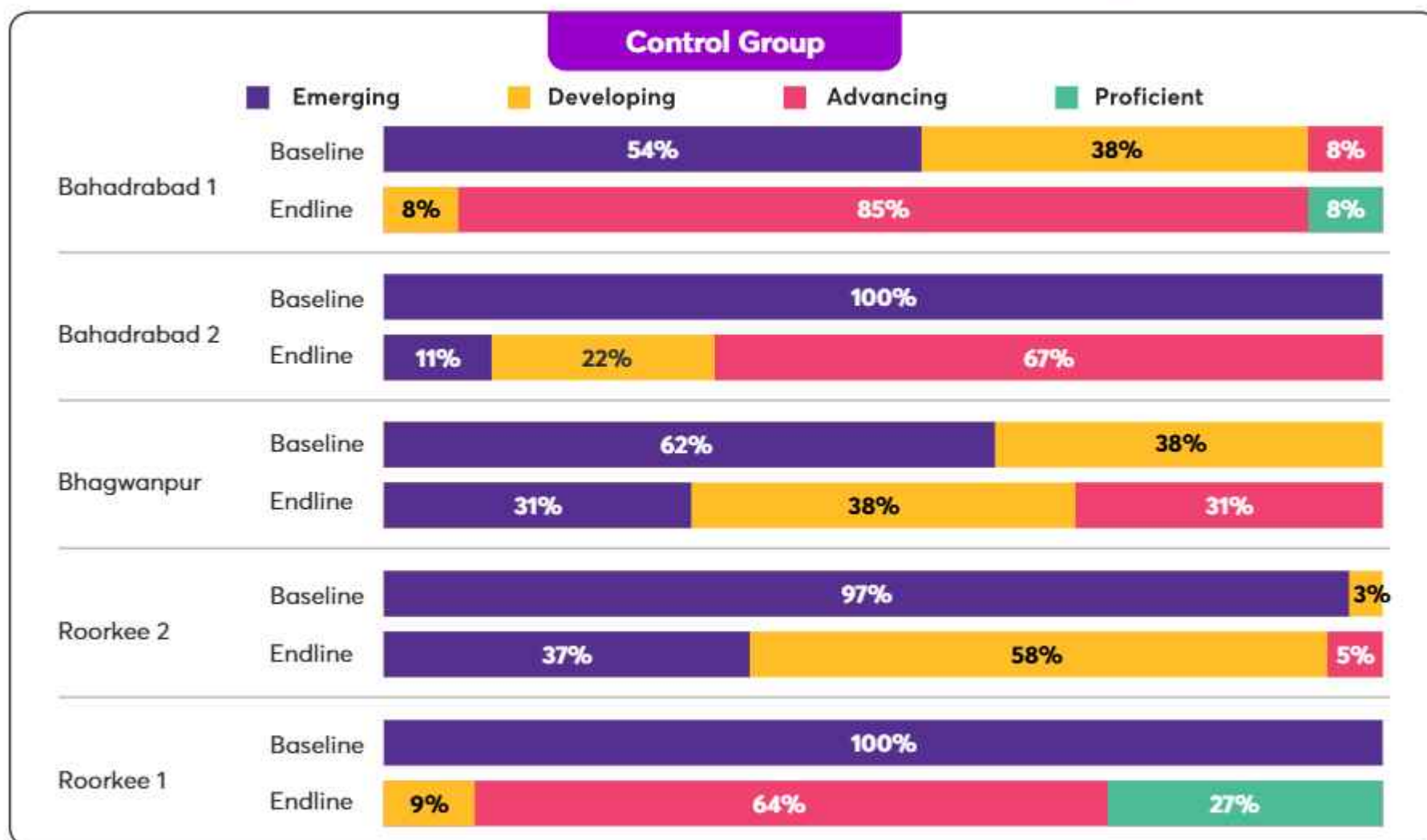
## Comparative Analysis: Block-wise Distribution of Learning Levels

The following section presents the block-wise distribution of children's learning levels, expressed as percentages, across the *Emerging*, *Developing*, *Advancing*, and *Proficient* categories.





## Comparative Analysis: Block-wise Distribution of Learning Levels



As seen in the above data, children in the **Treatment group** showed remarkable progress, with Proficient levels reaching **88%** in Bahadrabad 2 and **84%** in Bhagwanpur, demonstrating the intervention's significant impact.

Conversely, the **Control group** exhibited limited improvement, with the highest Proficiency level at **27%** in Roorkee 2, highlighting the comparative effectiveness of the intervention.

# Major Findings from the Assessment

The overall progression of children's learning levels from baseline to endline reveals a notable improvement in the development of key skills across all domains.

## 1. Baseline Situation in Treatment and Control Group:

At the **baseline**, In both control and treatment groups, a majority of children were in the *Emerging* category (**53%**), followed by **42%** in the *Developing* category. Only **5%** of children were in the *Advancing* category, and none were in the *Proficient* category, **reflecting substantial foundational skill gaps before intervention.**

## 2. Endline Progression in Treatment Group:

- The *Emerging* category dropped to **0%**, indicating the elimination of foundational skill gaps.
- The proportion of children in the *Proficient* category rose dramatically to **70%**, and **27%** progressed to the *Advancing* category.
- The combined percentage of children in the *Advancing* and *Proficient* categories increased from **5%** at baseline to **97%** at endline, showcasing a remarkable shift of **92%**.

## 3. Endline Progression in Control Group:

- The *Emerging* category reduced moderately to **13%**, and the *Developing* category dropped to **33%**.
- The *Proficient* category rose slightly to **7%**, with the *Advancing* category increasing to **48%**.
- The combined percentage of children in the *Advancing* and *Proficient* categories increased from **5%** at baseline to **55%** at endline, reflecting a modest shift of **49%**.

## 4. Comparison of Gains:

- The treatment group showed a statistically significant improvement ( $p < 0.00001$ ), with nearly all children moving to higher learning levels (*Advancing* and *Proficient*).
- The control group demonstrated slower progress, suggesting natural developmental gains rather than the effect of targeted interventions.



# Major Findings from the Assessment

## 5. Demographic and Regional Insights:

- Across both groups, proficiency levels increased with age. Boys slightly outperformed girls, but the difference was not statistically significant, indicating equal potential for growth.
- Regions such as Narsan and Roorkee 1 showed slower progress in both groups, particularly in physical and cognitive domains, suggesting region-specific challenges that require attention.

## 6. Key Areas for Focus:

- While the treatment group achieved significant progress, some children (all girls) remained in the *Developing* category, indicating a need for continued focus on strengthening these skills.
- The control group requires more intensive support to accelerate the shift toward *Advancing* and *Proficient* levels.

## Implications for Future Interventions

The dramatic improvement in the treatment group highlights the effectiveness of targeted interventions in addressing foundational gaps and fostering advanced learning. The control group findings emphasize the need for broader program implementation to ensure equitable progress across all learners. Continued efforts should focus on regions and skill domains with slower improvement, aiming to bridge the remaining gaps.



## Challenges Faced While Conducting Assessment

Attendance issues arose due to various factors, including some children attending private preschools, a few children traveling out of town with their parents, the remote or faraway service areas of some Anganwadi Centers (AWCs), and the absence of helpers in certain AWCs. The absence of helpers posed challenges as there was no one available to bring children to the assessment centers.







# **VOICES FROM THE FIELD**

### Voices of Our Anganwadi Workers



**Geeta Rani**

Maheshwari Anganwadi, Bhagwanpur

Geeta Rani transformed her teaching methods through Project TARA's training. Previously reliant on conventional techniques, she adopted digital content and interactive activities, making her classroom more inclusive and engaging. Students became active participants, leading to improved understanding and a newfound enthusiasm for school. Geeta's story highlights the impact of modern teaching tools on traditional classrooms.



**Suman Lata Yadav**

Saraya Anganwadi, Bahadabad 2

Before the Anganwadi Transformation Program, Suman Lata Yadav relied on traditional teaching methods with limited resources. The training introduced her to digital tools and interactive strategies, boosting her confidence and transforming her classroom into an engaging space. Children became active participants, showing improved comprehension and enthusiasm, as lessons became dynamic and exciting.



### Voices of Our Anganwadi Workers



**Razia Begum**

Jaurasi 2 Anganwadi, Narsan

Razia Begum initially struggled with using technology in her teaching but, with the program's support, grew confident in digital tools. The Akshar App became her favorite, simplifying lesson planning and making her classes more engaging. Her students grew more interested and active, and Razia's newfound ease with teaching brought joy to her work, creating a warm, interactive space where children thrived.



**Neera**

Kishanpur Jamalpur 8 Anganwadi, Roorkee 1

Neera embraced the program's focus on gender equality and inclusivity, transforming her classroom into a space that celebrated diversity. Using new resources and digital tools, she created engaging lessons that offered equal opportunities for all. Her efforts broke gender biases, fostering respect and harmony among students, where every child felt valued and could thrive.

### Voices of Our Anganwadi Workers



**Shaista**

Ratanpur Anganwadi, Roorkee 2

Shaista found Project Tara's training effective in improving her teaching methods. The new resources, like tables, chairs, a TV, and workbooks, boosted attendance and engagement, with children now attending Anganwadi regularly. The Akshar app made learning fun, and overall, the program has positively impacted both children's participation and parents' confidence in sending them to the center.



**Sharanjeet**

Badshahpur 6 Anganwadi, Bahadrabad 2

Project TARA's training has greatly improved our daily tasks, helping us conduct activities effectively and understand children's needs. The workbooks and Akshar app have made learning fun, leading to significant improvement in children's development and participation. They now eagerly stay at the center, enjoying every activity.



### Voices of Our Anganwadi Workers



**Kiran**

Salempur 13 Anganwadi, Bahadrabad 1

Project TARA's training provided clear guidance on the six domains and their implementation. Age-specific activities, like air tracing for 3-4-year-olds and writing in the workbook for 5-6-year-olds, have made learning effective. The Akshar app simplified teaching letters and colors through play. Since receiving resources, child attendance has increased, and parents are more confident in sending their children.



**Poonam**

Emli Kheda 13 Anganwadi, Roorkee 2

Project TARA's training has helped us a lot in organizing our daily tasks and conducting activities based on children's age. With Square Panda's guidance, it has become easy to implement the program in our routine. We evaluate children's progress using the workbooks, which offer creative assessments each month. Since joining Project TARA, the number of children at our center has increased, and parents, after visiting the center, now confidently send their children.

### Voices of Our Anganwadi Workers



**Pratibha**

Khedli 1 Anganwadi, Bahadabad 1

Project TARA's training has greatly improved my ability to organize age-appropriate activities and assess children's progress effectively. The resources and the Akshar app have made learning interactive and enjoyable for the children. Since the introduction of TV and toy kits, the number of children at our center has grown, and they are now fully engaged during their time here.



**Komal**

Durga Colony Anganwadi, Roorkee 1

Project TARA's training helped us organize age-appropriate activities and integrate resources like the Akshar app smoothly. The program increased children's attendance, and parents are happy with the improvements. Workbooks with monthly assessments have made tracking progress easier. Overall, the implementation was seamless, and we hope the program continues to benefit the children.



### From Parents' Perspective



**Ajay Kumar**

Maheshwari 2 Anganwadi, Bhagwanpur

Ajay Kumar was touched to see his child's excitement for learning grow after the Anganwadi center got new furniture, toys, and educational materials. Through parent-teacher meetings, he saw how these changes were helping his child learn and grow. The joy and eagerness his child now felt to attend the center gave Ajay hope, showing him how a better learning environment can change lives.



**Yasmeen**

Kishanpur Saraya (5,6) Anganwadi, Bahadabad 2

Yasmeen was thrilled to see her child's progress after the program. The parent orientation and PTM sessions helped her understand her child's learning journey. She noticed her child reciting poems and developing skills like writing and coloring. The Project Tara workbook became a helpful tool at home, strengthening their bond and making learning more enjoyable.

### From Parents' Perspective



**Saheera**

Jaurasi 4 Anganwadi, Narsan

For Saheera, Project Tara sparked her children's excitement to attend Anganwadi. The new resources made learning enjoyable, and the support from Anganwadi workers kept her connected to her children's education. The program boosted their interest in learning and empowered her to actively support her child's education at home.



**Sonia**

Kishanpur Jamalpur 8 Anganwadi, Roorkee 1

Sonia appreciated the updates from Anganwadi workers about her child's progress. The new facilities from Project Tara, like a TV and interactive materials, improved her child's attitude towards school. Engaging activities motivated regular attendance and active participation. Sonia saw improvements in behavior, learning, and enthusiasm, highlighting the program's success.



### From Parents' Perspective



**Ehsan**

Badshahpur 6 Anganwadi, Bahadrabad 2

Ehsan saw a positive change in his child's learning with Project Tara, especially in reading and writing skills, thanks to the insightful PTM sessions. His child became more engaged in these areas, and Ehsan appreciated the regular updates from the Anganwadi workers. He feels the resources provided by the program are excellent.



**Hasin**

Kishanpur Jamalpur 8 Anganwadi, Roorkee 1

Hasin saw his child's learning improve with Project Tara. His child eagerly shares what he learns, enjoys going to the center, and has started drawing, coloring, and singing at home. Hasin is happy with the progress and the consistent support from the Anganwadi workers.

### From Parents' Perspective



**Seema**

Imli Khera 13 Anganwadi, Roorkee 2

Since the start of Project TARA, my child has shown significant improvement. Previously, he didn't want to go to Anganwadi, but now he looks forward to it, mentioning the TV sessions. He even tries to share what he learns at Anganwadi with me at home. The addition of chairs, tables, and the TV has made a huge difference in his engagement and learning. Everything is going great now.



**Reena**

Salempur 13 Anganwadi, Bahadabad 1

Since Project TARA began, my child has shown great progress. With the addition of TV, chairs, tables, and books, he now attends Anganwadi daily and enjoys it. He shares what he learns at home and has become more social, playing with friends. I am happy with the communication from Anganwadi workers, and the provided resources are excellent.



### From Parents' Perspective



**Parul**

Khedli 1 Anganwadi, Bahadabad 1

Through parent meetings, I receive updates on my child's progress and any changes at the Anganwadi center. Project TARA has brought significant improvements; my child, who used to spend a lot of time on the phone at home, now enjoys watching TV at the center and mimics learning at home. I am grateful for the progress and daily support from Anganwadi workers.



**Shama Praveen**

Durga Colony Anganwadi, Roorkee 1

I am very happy with the Square Panda program. My child has learned many concepts and eagerly shares his learnings with his siblings at home. The Anganwadi didi has been very supportive, and my child now regularly attends Anganwadi. He enjoys sitting there and exploring all the materials provided. His writing skills have significantly improved, and he is much happier and more engaged with the activities.

### What Our Little Stars Have to Say



**Adarsh**

Saraya (5,6) Anganwadi, Bahadabad 2

Adarsh's learning became more engaging with interactive lessons and physical activities. He enjoyed learning the Hindi alphabet through TV and playing games with friends. These activities improved his language skills and helped his social and physical development. His excitement shows how the program's mix of digital content and hands-on activities made learning enjoyable and effective.



**Marahim**

Jaurasi 4 Anganwadi, Narsan

Marahim flourished in the enriching environment created by the program. Story sessions and group activities became her favorites, sparking her imagination and boosting her social skills. The enjoyable learning experiences fostered her overall development in a supportive setting. Her enthusiasm for participating shows the program's success in making education a fun adventure.



### What Our Little Stars Have to Say



**Rakhi**

Maheshwari 2 Anganwadi, Bhagwanpur

Rakhi's time at the Anganwadi was filled with hands-on activities that sparked her interest. She loved exploring colors, learning the alphabet, and counting through creative methods like making clay models. These fun activities made learning engaging and helped her develop foundational skills in a stimulating environment.



**Nitya**

Kishanpur Jamalpur 8 Anganwadi, Roorkee 1

Nitya enjoyed a blend of physical play and digital learning. She engaged in literacy and numeracy activities through fun methods, like educational TV videos. This mix supported her overall development, enhancing her skills in a joyful, inclusive setting. Nitya's progress highlights the program's comprehensive approach to early childhood education.

### What Our Little Stars Have to Say



**Afia**

Ratanpur 3 Anganwadi, Roorkee 2

Afia loves learning at Anganwadi, especially through TV lessons like the Hindi alphabet. She enjoys sitting on the chair and watching videos, which make her happy. Afia also has fun with her friends, clapping, playing in circles, and jumping. Learning new things, like the "Hathi Raja" poem, excites her, and the TV lessons keep her engaged.



**Aayat**

Ratanpur 3 Anganwadi, Roorkee 2

Aayat enjoys learning the poem "Machhli Jal Ki Rani Hai" and finds it interesting. She loves sitting with friends and playing together, as well as coloring and writing in her book. Watching TV and playing with toys are also her favorite activities.



### What Our Little Stars Have to Say



**Ishi**

Badshahpur 6 Anganwadi, Bahadabad 2

Ishi enjoys playing with a bat and ball and loves the TV sessions at Anganwadi. She is excited to come to the center, especially because of the fun programs she gets to watch. Playing with friends and outdoor activities are now her favorite part of the day. These activities keep her engaged, and she eagerly looks forward to learning new things every day.



**Aliza**

Badshahpur 6 Anganwadi, Bahadabad 2

Aliza enjoys learning and playing, especially when it comes to fun activities like making boats. She loves coming to Anganwadi because she has friends here. Watching TV at the center makes her happy, and she finds it exciting. She also enjoys learning about things like red tomatoes, which she finds interesting and fun.

### What Our Little Stars Have to Say



**Keshav**

Imli Kheda 13 Anganwadi, Roorkee 2

Keshav enjoys playing with a ball and sitting on a chair to write. He loves clapping, playing in circles, and jumping with everyone. Watching TV is another activity he enjoys, especially when the teacher plays it at the center. Keshav also enjoys interacting with his friends and engaging in fun group activities at the center.



**Varnika**

Imli Kheda 13 Anganwadi, Roorkee 2

Varnika enjoys singing songs and loves colouring in her book, especially when filling colours in pictures like a bear or a cat. She is happy playing with toys and finds great joy in the activities at the center. She always has fun when participating in group activities and enjoys learning new things from her teacher.



### What Our Little Stars Have to Say



**Vihaan**

Salem Pur 13 Anganwadi, Bahadabad 1

Vihaan loves coming to the Anganwadi, especially because he enjoys watching TV and playing with his friends. He enjoys engaging in activities like coloring and feels happy to learn new things every day. He also finds the red tomatoes on the wall fascinating and enjoys discussing them with his friends and teachers.



**Rishith**

Salem Pur 13 Anganwadi, Bahadabad 1

Rishith enjoys coming to the Anganwadi, especially because he loves spending time with his friends and engaging in various activities. He has fun clapping along to songs and coloring in his books. He enjoys playing with toys and running around with his friends.

### What Our Little Stars Have to Say



**Damini**

Khedli 1 Anganwadi, Bahadabad 1

Damini enjoys walking on the rope and finds it fun, especially when the rhymes are played on TV. She loves coming to Anganwadi because there are many beautiful pictures of things like mangoes, cats, and lions on the walls. Playing with her friends is one of her favorite activities, and she particularly enjoys jumping rope.



**Aradhya**

Khedli 1 Anganwadi, Bahadabad 1

Aradhya enjoys walking along the line and watching TV, especially when the "A for Anar" tune plays. She loves coming to Anganwadi because of the small chairs, and she enjoys playing with toys. Filling colors in books and watching TV are also some of her favorite activities.



### What Our Little Stars Have to Say



**Aman**

Durga Colony Anganwadi, Roorkee 1

Aman enjoys walking along a straight line. He loves coming to Anganwadi, especially because the TV plays Veera, Tara, and Pan's videos. He enjoys clapping, playing in circles with his friends. Filling colors in books is one of his favorite activities, and he particularly enjoys coloring in his copy.



**Mahira**

Durga Colony Anganwadi, Roorkee 1

Mahira enjoys filling colors in her workbook and playing games. Watching TV is one of her favorite activities, and she also enjoys playing with a ball and engaging in various fun activities with her friends. She loves participating in group activities and enjoys the fun moments at Anganwadi.



**Conclusions:** The treatment intervention had a profound impact on children's learning outcomes. The large shift from lower to higher categories suggests that the intervention has significantly enhanced children's development across domains and diverse skill sets, especially in personal development, language skills, and cognitive abilities, with most children moving into higher learning categories.



# **RECOMMENDATIONS**



# Recommendations

## 1. Focus on Consolidating Skills in the *Developing* Category:

Targeted interventions should address gaps in cognitive, physical, and creative skills by leveraging Anganwadi centers as hubs for foundational development. Strategies include:

- ▶ **Skill Development Kits:** Provide Anganwadi workers with learning aids like activity cards, storytelling props, and manipulative tools for fine motor skills development.
- ▶ **Parental Involvement Workshops:** Educate parents on simple activities to strengthen cognitive and creative skills at home, ensuring continuity beyond the center.
- ▶ **Early Identification Programs:** Use assessments at Anganwadis to identify children lagging in specific skill areas and provide tailored interventions like guided play and physical activities.

## 2. Replicate Best Practices from Treatment Group:

Expand the successful strategies of the treatment group, such as personalized learning, interactive pedagogy, and consistent monitoring, to other regions, ensuring broader impact and uniform skill development.

Expand successful practices like personalized learning, interactive pedagogy, and consistent monitoring to Anganwadi centers. Examples include:

- ▶ **Personalized Learning Plans:** Equip Anganwadi workers with simple tools to track the development of individual children, allowing for targeted interventions.
- ▶ **Interactive Pedagogy Training:** Train Anganwadi workers in playful teaching techniques like storytelling, puppet shows, and music-based learning.
- ▶ **Monitoring Dashboards:** Use technology to help Anganwadi workers and district officials monitor progress and share insights for continuous improvement.



# Recommendations

## 3. Prioritize Region-Specific Interventions:

Localized strategies should address slower progress in specific regions like Narsan and Roorkee 1 by tailoring interventions to regional needs. For Anganwadis, this could include:

- ▶ **Localized Content Development:** Create materials reflecting regional culture and language, making learning relatable and engaging.
- ▶ **Enhanced Teacher Training:** Provide additional training to Anganwadi workers, focusing on overcoming challenges specific to the region, such as multilingual settings or socio-economic barriers.
- ▶ **Community Mobilization:** Partner with local leaders and community groups to promote attendance and parental involvement in Anganwadi activities.

## 4. Strengthen Gender Equity Measures:

While boys and girls showed similar growth overall, Anganwadi interventions should address subtle gender disparities by:

- ▶ **Promoting Equal Participation:** Encourage girls to participate in all activities, including physical play and STEM-based learning opportunities.
- ▶ **Awareness Programs for Parents:** Conduct sessions highlighting the importance of equal educational opportunities for boys and girls.
- ▶ **Role Model Initiatives:** Introduce storytelling sessions about inspiring women to motivate young girls.

## 5. Sustain Gains Through Continuous Monitoring and Support:

Sustain the gains achieved by children through:

- ▶ **Follow-Up Programs:** Engage Anganwadi centers to track and support children even after transitioning to primary school.
- ▶ **Skill Reinforcement Camps:** Organize periodic camps at Anganwadis for children and parents to refresh critical skills and prevent regression.
- ▶ **Peer Learning Groups:** Encourage older children to revisit Anganwadi centers to mentor younger peers, fostering a culture of continuous learning.



# Recommendations

## 6. Integrate the AnganGyaan App for Enhanced Monitoring and Personalized Learning:

To enhance the effectiveness of interventions, the AnganGyaan app should be integrated into Anganwadi centers. It provides real-time progress tracking, personalized learning paths, and skill reinforcement, helping workers deliver tailored support to each child. The app offers daily activity checklists, a comprehensive content library, and progress tracking tools, ensuring focused classroom activities across all developmental domains.

### Key Features of the AnganGyaan App:



#### **Real-Time Progress Tracking:**

Enables Anganwadi workers to monitor children's development and implement timely, customized interventions.



#### **Personalized Learning:**

Offers individualized learning paths that address each child's unique needs, fostering holistic growth.



#### **Educational Resources:**

Provides a rich library of materials to facilitate engaging and interactive learning experiences.



#### **Skill Reinforcement:**

Includes activities designed for all developmental areas, promoting continuous learning both in class and at home.



#### **Leaderboard Feature:**

Encourages motivation and performance through friendly competition among workers, fostering a dynamic learning environment.



#### **Continuous Professional Development:**

Supports the ongoing growth of Anganwadi workers by offering educational content to enhance their teaching methods, ultimately benefiting the children they serve.

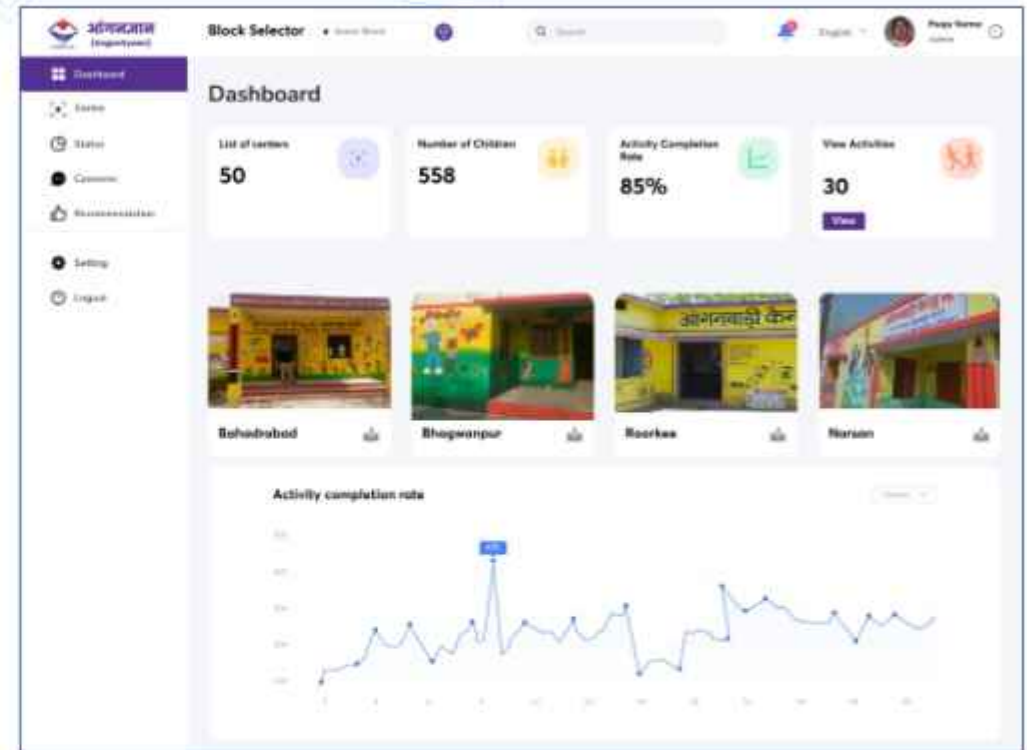
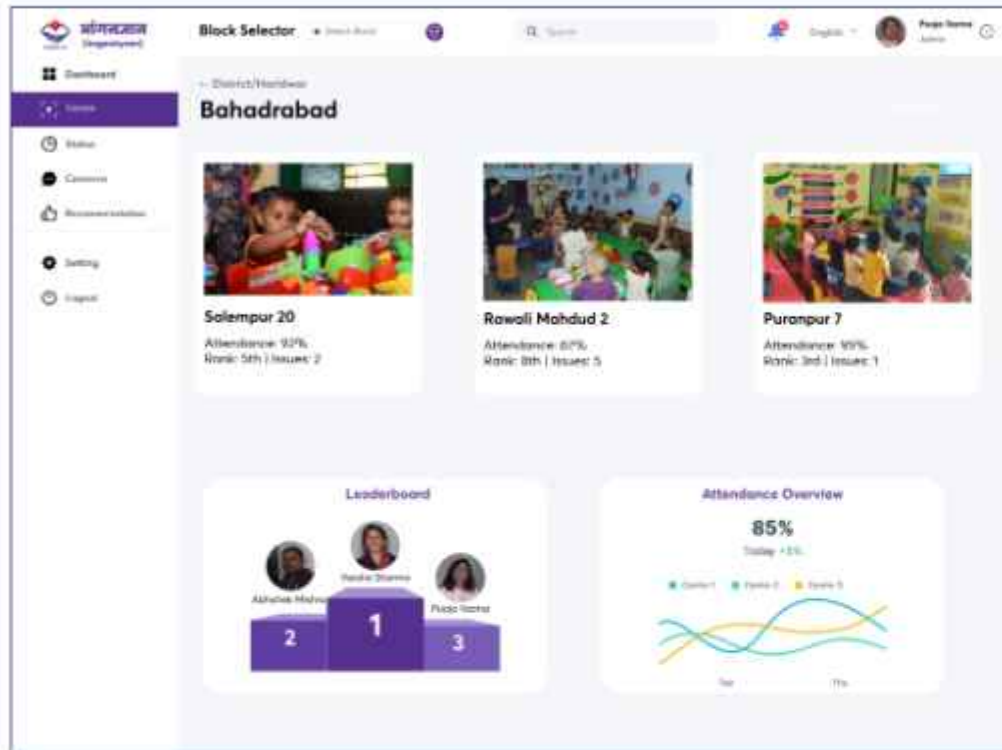
# Recommendations

Find below a glimpse of the AnganGyaan app and dashboard.





# Recommendations





# **BEFORE/AFTER PHOTOS**



Habibpur Newada



Kishanpur Jamalpur



Kishanpur Jamalpur



Habibpur Newada



Before

LEARNING KITS

After

Dadli



Hathiyathal



Hathiyathal



Dadli





Akbarpur Jojha



Dhanauri



Dhanauri



Akbarpur Jojha



Before

LEARNING KITS

After

Hakimpur



Mandavar



Mandavar



Hakimpur



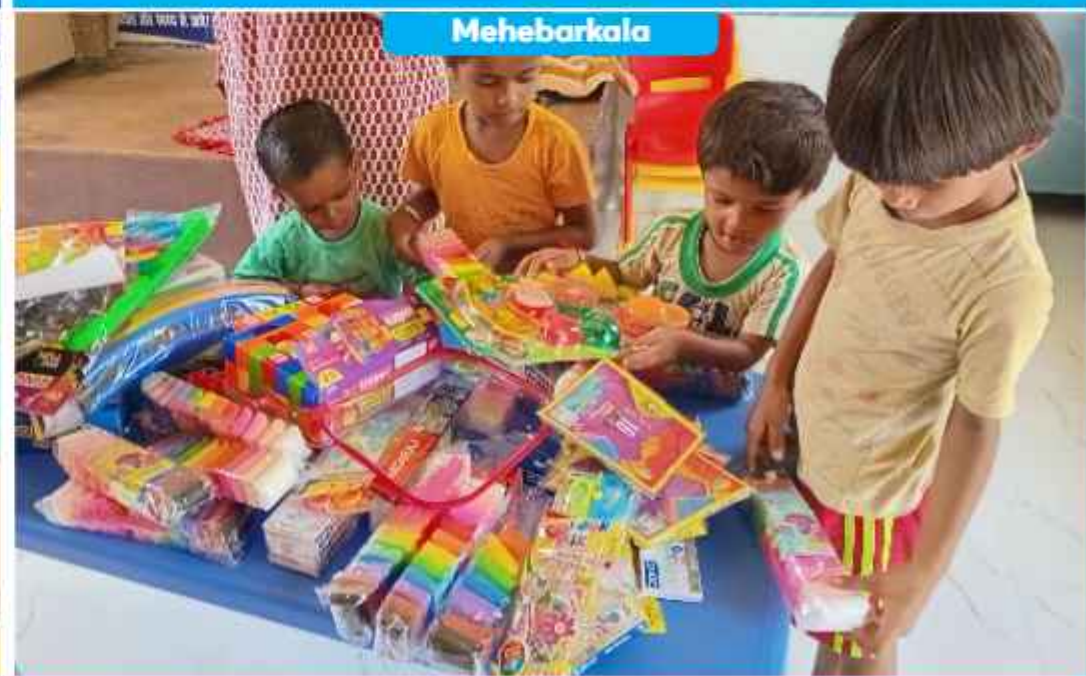




Before

LEARNING KITS

After







Before

TEACHING PRACTICES

After







Before

TEACHING PRACTICES

After







Before **CLASSROOM ATTENDANCE** After





Aadarsh Nagar



Aadarsh Nagar



Before

CLASSROOM ATTENDANCE

After

Mehvad Khurd



Mehvad Khurd





Aneki



Badheni Rajputan



Badheni Rajputan



Aneki



Before

FURNITURE

After

Beldi



Daulatpur



Daulatpur



Beldi







**Before**

**FURNITURE**

**After**





Aamkhedi



Bhadrabad



Bhadrabad



Aamkhedi



Before

BaLA

After

Dadapatti



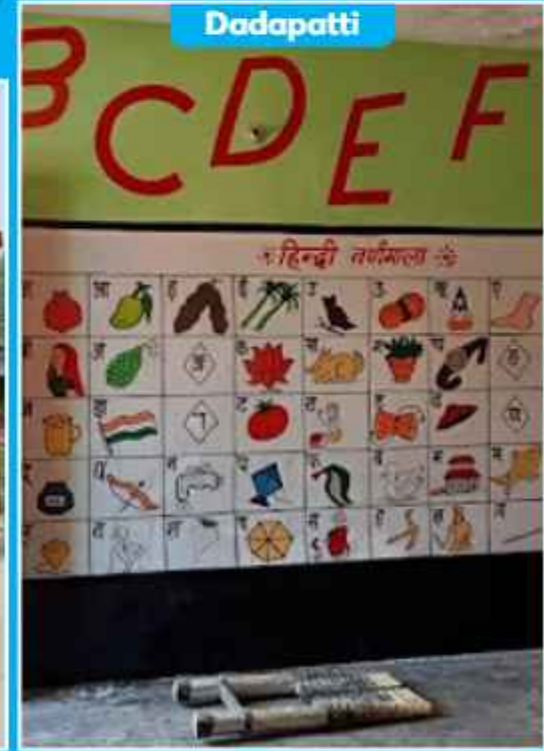
Chouli



Chouli



Dadapatti





Telpura



Nagal



Nagal



Telpura



Before

BaLA

After

Mandawar



Dadli



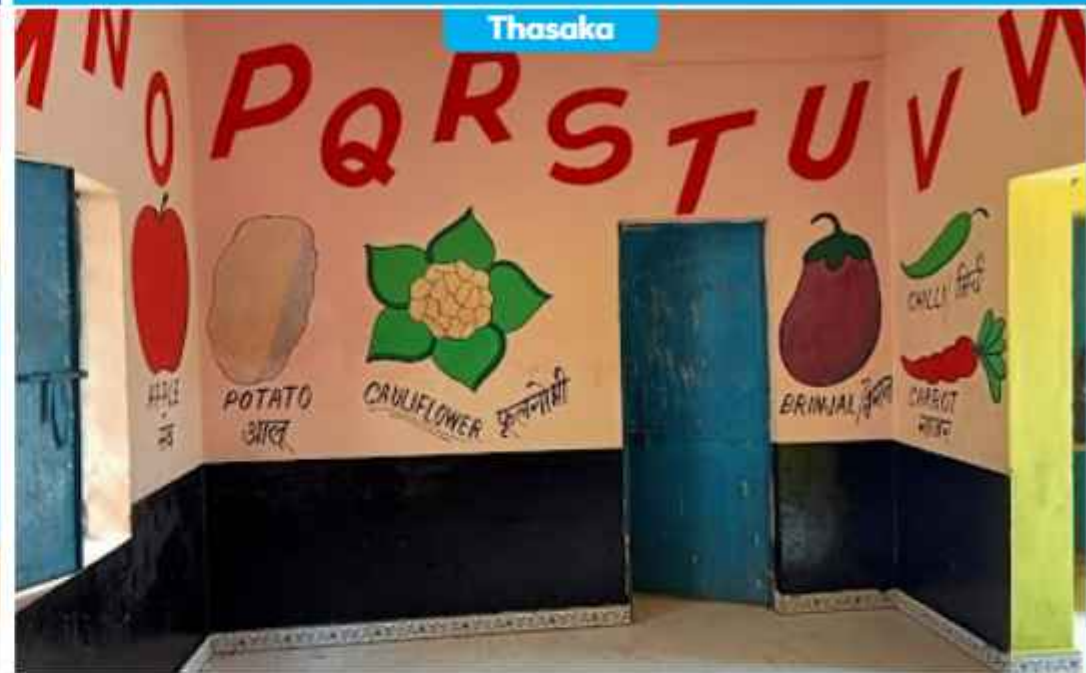
Dadli



Mandawar







Before

BaLA

After





## Glossary of Terms

1. **Anganwadi Centers (AWCs):** Government-run centers in India under the Integrated Child Development Services (ICDS) scheme, providing health care, nutrition, and early childhood education services.
2. **Baseline Assessment:** An initial evaluation conducted before the intervention to establish the starting level of children's development and learning outcomes.
3. **BaLA (Building as Learning Aid):** A concept that transforms physical spaces into interactive learning environments using walls, floors, and furniture as teaching aids.
4. **Blended Learning:** An approach combining traditional classroom methods with digital tools and online resources for a comprehensive learning experience.
5. **Cognitive Development:** A child's development in thinking, problem-solving, and understanding, often assessed through numeracy, environmental awareness, and reasoning activities.
6. **Control Group:** A set of children who did not receive the educational intervention, used for comparison against the treatment group in the study.
7. **Difference-in-Differences Analysis:** A statistical technique to measure the impact of an intervention by comparing changes between treatment and control groups.
8. **Domain:** Developmental areas assessed in children, including personal, social, emotional, language, cognitive, physical, and creative development.
9. **Emerging, Developing, Advancing, Proficient (EDAP):** Categories used to assess children's developmental stages based on their learning progress.
10. **Endline Assessment:** An evaluation conducted after the intervention to measure its effectiveness and the developmental progress of children.
11. **Foundational Literacy and Numeracy (FLN):** Essential reading, writing, and arithmetic skills that form the foundation for future learning.
12. **Gender Equality:** Ensuring that both boys and girls have equal access to educational opportunities and developmental outcomes.
13. **Holistic Development:** The comprehensive development of a child, covering cognitive, language, physical, social, emotional, and creative growth.
14. **ICDS (Integrated Child Development Services):** A flagship Indian government program offering health care, nutrition, and early childhood education.
15. **Inclusive Education:** An educational approach where children, irrespective of their backgrounds, learn together in the same environment.
16. **Intervention:** A specific set of educational programs and activities designed to improve children's learning and developmental outcomes.



## Glossary of Terms

17. **Life Skills:** Abilities that help children effectively manage challenges, relationships, and daily responsibilities, including communication and problem-solving.
18. **Learning Levels:** Categories used to classify children's academic and developmental progress (Emerging, Developing, Advancing, Proficient).
19. **NEP 2020 (National Education Policy 2020):** India's policy framework aimed at reforming education with a focus on foundational literacy, digital education, and holistic learning.
20. **Personal, Social, and Emotional Development (PSED):** A developmental domain that focuses on children's ability to manage emotions, build relationships, and develop social skills.
21. **Play-Based Learning:** An educational approach where children learn through play activities that foster creativity, problem-solving, and social skills.
22. **Proficiency Levels:** Indicators of children's achievements in specific developmental and learning milestones.
23. **Project TARA:** A 10-month educational intervention implemented by Square Panda India in Haridwar's Anganwadi centers to improve foundational literacy, numeracy, and life skills.
24. **Quasi-Experimental Approach:** A quasi-experimental approach was adopted to assess the impact of early years interventions. This approach allows for comparing groups with and without the intervention and aims to measure the effect of the intervention.
25. **School Readiness:** The preparedness of a child to succeed in formal schooling, encompassing physical, cognitive, language, emotional, and social skills necessary for learning and development.
26. **Square Panda Akshar App:** A digital learning tool utilized in Project TARA to enrich early childhood education while fostering holistic development across cognitive, physical, emotional, social, language, and creative domains.
27. **Statistical Significance (p-values):** A statistical measure used to determine whether the differences observed in outcomes are meaningful or likely due to chance.
28. **Treatment Group:** A set of children who received educational intervention throughout the program.
29. **Teaching Learning Materials (TLMs):** Educational resources used by teachers to enhance learning experiences and engagement in the classroom.
30. **Thematic Learning:** An approach where educational activities are interconnected around a common theme to deepen children's understanding.









TRANSFORMING ANGANWADIS  
& RENEWING ABILITIES