



STUDY REPORT

TRACING THE ECD ADVANTAGE

Comparative Study of Learning Outcomes for Children
Transitioning from ECD Centres into Community-Based
Education (CBS)

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PREFACE

This report is more than a study document—it is an urgent call to reimagine Afghanistan’s future through the power of Early Childhood Development (ECD). At a time when the country’s education system is tested by fragility, constrained resources, and shifting socio-political dynamics, this study offers rare, high-quality evidence from over 200 children across diverse provinces. The findings are unequivocal: early learning interventions are not only effective, they are transformative, lifting academic performance, strengthening behavioural readiness, and narrowing gender gaps even in the most disadvantaged settings.

For development partners and donors, this is a must-read study. The data presented here demonstrates that strategic investments in ECD yield exceptional returns, like improving school readiness, reducing long-term remediation costs, and strengthening community resilience. It underscores how community-based structures, can be leveraged as culturally aligned entry points for scalable, inclusive early childhood development and learning.

This report is a testament to what is possible when evidence, community trust, and institutional commitment converge. It is offered with the hope that policymakers, donors, and practitioners will use these insights to accelerate equitable ECD expansion and to champion a generation of Afghan children whose potential deserves to be nurtured, protected, and fully realized.

SSEOA R&D Team.



ACKNOWLEDGEMENT

This study report reflects the collective dedication and intellectual commitment of the entire SSEOA family. I extend my deepest appreciation to our exceptional Field Teams, whose diligence, integrity, and community engagement ensured the highest quality of data in challenging operational environments. My sincere thanks to the MEAL Team for their meticulous oversight, and to the SSEOA Program Team for their continuous facilitation, coordination, and technical alignment throughout the study.

I am profoundly grateful to Mr. Niamatullah Rahi, Executive Director of SSEOA, whose strategic leadership, resource allocation, and early encouragement planted the very seed from which this study evolved and grew. His belief in evidence-driven programming remains a cornerstone of our institutional ethos.

This report is the result of countless hours of inquiry, analysis, and reflection by the Research and Development (R&D) Department, whose commitment to knowledge generation has been invaluable.

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Message From Executive Director



It is with great pride that I present this landmark study on Early Childhood Development (ECD) and its impact on children entering Community-Based Schools (CBS). At a time when Afghanistan's education system faces profound constraints, this study demonstrates something deeply hopeful: that the earliest years of a child's life hold the greatest potential to transform their learning journey, their confidence, and their future.

For SSEOA, evidence has always been at the heart of our mission. We firmly believe that programmes must be guided not only by need, but by understanding what truly works for Afghan children—especially those in the most fragile and underserved communities. This study, drawing on child-level data from Badakhshan and Takhar, offers clear, compelling evidence that ECD exposure significantly strengthens foundational literacy, numeracy, socio-emotional readiness, and gender equity. The findings are unambiguous: children who begin learning early, learn better, faster, and more confidently when they transition into Grade I and Grade II.

The results also carry a powerful message for all of us working in Afghanistan's education ecosystem. ECD is not a luxury. It is not an optional service. It is an essential investment—one that lifts learning outcomes, narrows gender gaps, and gives girls and boys the confidence, curiosity, and readiness they need to succeed in school and beyond. In CBS environments where resources are limited, teachers are overstretched, and families face daily uncertainties, ECD becomes a foundational pillar that enables children to thrive academically and emotionally.

I extend my deepest appreciation to Mr. Ravi Kharka, and his team who led the study, our dedicated field teams, MEAL officers, CBS teachers, and community members whose commitment made this study possible. I also thank our partners, AKF, CAI, ECW, WF and others, whose support enables us to continue strengthening community-based education across Afghanistan. This research stands as a collective achievement of everyone who believes that Afghan children deserve opportunity, dignity, and quality learning regardless of circumstance.

Looking ahead, SSEOA remains fully committed to expanding community-based ECD opportunities, integrating early learning into CBS clusters, and ensuring that girls, who benefit most from ECD, are prioritized in the years ahead. Together, with partners and communities, we must ensure that every child enters school ready to learn, ready to participate, and ready to build a better future for themselves and for Afghanistan.

Niamatullah Rahi

Executive Director, SSEOA

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EXECUTIVE SUMMARY – ECD Vs. NON-ECD STUDY

This Executive Summary synthesizes the major findings, analyses, and policy implications arising from a quantitative study of 200 learners enrolled in Community-Based Schools (CBS) in Badakhshan and Takhar provinces. The study examined whether Early Childhood Development (ECD) exposure improves learning outcomes, behavioural readiness, and equity indicators for children entering Grades I and II in SSEOA-supported CBS classes. This summary presents high-level insights for AKF[1], ECW[2], CAI[3], SSEOA[4], donors, and national stakeholders responsible for shaping Afghanistan's crisis-affected education landscape.



1. CONTEXT AND PURPOSE

Afghanistan faces one of the highest rates of learning poverty in the world. Formal pre-primary systems are nearly absent, and the burden of foundational learning falls heavily on CBS and community-driven programmes. In this context, ECD is not a luxury—it is a critical investment. This study responds to an evidence gap by quantifying how ECD affects CBS learners' academic performance, readiness, attendance, and socio-emotional well-being.

2. METHODOLOGY

The study employed a comparative, cross-sectional quantitative design using structured MPL literacy and numeracy tests, school performance data, teacher-rated behavioural assessments, and caregiver questionnaires. The sample was rigorously balanced:

- 100 ECD learners and 100 non-ECD learners
- 100 girls and 100 boys
- Representation from Grades I & II
- 182 learners from Badakhshan, 18 from Takhar

Regression models controlled for grade, gender, age, and province to isolate the true effect of ECD exposure.

3. KEY FINDINGS



3.1 Academic Outcomes

ECD learners significantly outperformed non-ECD learners:

- Literacy: +7.11 points
- Numeracy: +7.52 points
- School marks: +4.87 points

These differences indicate that ECD strengthens cognitive foundations before CBS entry and accelerates early learning progression.

3.2 Behavioural Readiness

Teachers rated ECD learners substantially higher across four socio-emotional indicators:

Participation: (+0.57)



Confidence (+0.68)



Attention (+0.64)



Peer interaction (+0.63)



These behavioural competencies are essential in low-resource CBS environments where learner engagement determines instructional effectiveness.



3.3 Gender-Differentiated Outcomes



Girls benefited most from ECD exposure:

- Literacy: +11.9 points
- Numeracy: +11.8 points
- School marks: +9.2 points

ECD acted as a gender-equalizing platform, giving girls structured opportunities for expression, play, and confidence-building rarely available at home.

3.5 Attendance and Retention

Attendance and retention in Community-Based Schools remained consistently high (~99%), confirming that CBS models effectively overcome access barriers. Although ECD is known to influence attendance, this study did not analyse attendance drivers due to scope limitations. Attendance is therefore treated as constant, allowing focused assessment of ECD's added value in learning and behaviour.

3.4 Provincial Variation

ECD advantages were strongest in Badakhshan—a province with high deprivation and minimal pre-primary access—demonstrating that ECD is most impactful where learning poverty is deepest.

3.6 Regression-Adjusted Effects

Regression-adjusted results show ECD as a strong, independent predictor of cognitive and behavioural outcomes, even after controlling for demographic factors. Programme duration affect impact, indicating that quality ECD interventions can deliver substantial developmental gains in low-resource and crisis-affected settings.

4. INTERPRETATION AND IMPLICATIONS



The findings demonstrate that ECD:

- acts as a cognitive accelerator,
- builds socio-emotional foundations essential for CBS success,
- improves gender equity,
- reduces early learning disparities, and
- strengthens CBS programme efficiency.

In fragile contexts, ECD is the most cost-effective investment for improving early-grade learning outcomes.

5. KEY RECOMMENDATIONS

Programme Recommendations:

- Integrate ECD as a core component of all CBS clusters.
- Prioritize ECD for girls and high-deprivation districts.
- Implement short-cycle ECD modules where resources are limited.
- Introduce “ECD booster programmes” for overage learners entering CBS.
- Strengthen teacher training in early childhood pedagogy.

Policy Recommendations:

- Recognize community-based ECD as an official pre-primary pathway.
- Include ECD readiness indicators in donor MEAL frameworks.
- Develop multi-donor ECD financing mechanisms.
- Integrate ECD within humanitarian-development nexus planning.

Research Recommendations:

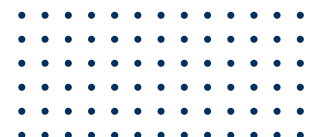
- Conduct longitudinal ECD-CBS transition studies.
- Assess ECD quality dimensions (teaching, materials, interactions).
- Expand research to additional provinces.

6. CONCLUSION



ECD offers a powerful, multidimensional advantage for children in Afghanistan’s CBS ecosystem. The study provides clear empirical evidence that ECD enhances academic achievement, strengthens behavioural readiness, reduces gender disparities, and supports equity in crisis settings. To achieve meaningful foundational learning outcomes nationwide, Afghanistan must recognize ECD not as an optional service but as a cornerstone of early grade success.

This Executive Summary provides the foundation for scaling structured, community-based ECD interventions across Afghanistan—an essential step toward ensuring that every child learns, thrives, and transitions with dignity.



CHAPTER 1 — INTRODUCTION & BACKGROUND

1.1 Context: Education in Afghanistan in a Time of Profound Constraint

Afghanistan today stands at a uniquely fragile intersection of humanitarian need, social transition, and structural uncertainty. For millions of children—especially girls—the simple act of learning has become a daily negotiation between hope and hardship. National education systems, traditionally reliant on formal schools and government structures, face severe operational and institutional constraints. In this context, Community-Based Education (CBE) and Community-Based Schools (CBS) have emerged as one of the most practical and socially-aligned pathways for sustaining access to basic education for children in rural, remote, and marginalized communities.

Despite the national challenges, Afghan communities continue to demonstrate resilience and commitment to learning. Local educators, NGOs such as SSEOA, and global partners—including AKF (Agha Khan Foundation) under Education Cannot Wait (ECW) and Central Asia Institute (CAI)—have played an indispensable role in keeping education systems functional, safe, and inclusive. Yet, access alone is no longer sufficient. The global education discourse, increasingly shaped by ECW's emphasis on foundational learning outcomes, calls for evidence-driven strategies that ensure children not only attend school, but learn meaningfully, participate confidently, and develop socio-emotional competencies that support long-term well-being.

This imperative brings renewed attention to Early Childhood Development (ECD)—a foundational, evidence-backed investment that influences cognitive growth, socio-emotional maturation, school readiness, and ultimately, lifelong educational trajectories. In Afghanistan—where nearly two-thirds of children lack any formal pre-primary exposure—the question of whether ECD can improve CBS learning outcomes is not merely academic; it is fundamentally a question of equity, efficiency, and strategic prioritization.



1.2 The Emergence and Importance of Community-Based Schools (CBS)

CBS has become one of the most adaptive and community-responsive education models in Afghanistan. For girls, for children in geographically isolated provinces, and for families with financial constraints, CBS represents proximity, cultural acceptability, safety, flexibility, and continuity. Under ECW-supported interventions, CBS classrooms have not only preserved learning continuity during crises, but have also become safe learning spaces where girls' participation is socially respected and educational aspirations are protected.

However, CBS must grapple with one persistent challenge: incoming learners often begin Grade I with significant variation in readiness, especially in early literacy exposure, early numeracy, language development, attention span, confidence, and socio-emotional development. These differences are rooted in the presence—or absence—of Early Childhood Development (ECD) exposure before they join CBS.

1.3 The Evidence Gap: ECD-to-CBS Transition in Afghanistan

Globally, decades of research affirm that ECD participation enhances school readiness, reduces repetition, and increases learning outcomes. Yet, Afghanistan has very little empirical data assessing whether ECD exposure improves outcomes inside community-based schools. Most Afghan ECD literature is programmatic, anecdotal, or qualitative. Quantitative, child-level evidence—collected systematically from CBS learners—is extremely scarce.

This study, therefore, responds to a profound evidence need: Does ECD exposure translate into meaningful, measurable improvements in CBS learning outcomes and school readiness in Afghanistan?

1.4 Purpose and Rationale of the Study

The purpose of this study is to systematically analyze whether prior ECD exposure produces a measurable advantage in the academic and socio-emotional performance of children enrolled in Grade I and Grade II Community-Based Schools supported by SSEOA, CAI, and ECW.

The study informs program design, policy dialogue, donor strategy, education planning, and aligns with ECW's strategic focus on foundational learning and holistic development in crisis contexts.



1.5 Study/Research Questions

Primary Question:

1. Does Early Childhood Development (ECD) exposure improve learning outcomes for children in CBS Grade I and Grade II?

Secondary Questions:

2. Does ECD exposure improve foundational literacy and numeracy?
3. Do ECD-exposed children show stronger school readiness indicators?
4. Does ECD exposure improve attendance and retention?
5. Does the ECD advantage differ by gender?
6. Are results consistent across provinces?

1.6 Research Hypotheses

H1: ECD improves learning outcomes.

H2: ECD supports better attendance and retention.

H3: ECD enhances classroom readiness and socio-emotional behaviours.

H4: ECD may be especially transformative for girls.



1.7 CONTRIBUTION AND SIGNIFICANCE

This study offers the first quantitative, child-level ECD-to-CBS evidence in Afghanistan, strengthening strategic planning, CBS programming, gender-responsive education, and donor advocacy. It aligns directly with ECW's foundational learning agenda and reinforces ECD as a cost-effective, scalable intervention.

1.8 STRUCTURE OF THE REPORT

The report contains five chapters: Introduction, Methodology, Findings, Discussion, and Recommendations, supported by annexes with tools and regression tables. In such a challenging context, evidence that early childhood development strengthens school readiness and foundational learning is transformative. This research brings forward the experiences of 200 CBS learners, illustrating how meaningful investment in ECD can illuminate pathways toward a more equitable and resilient future for Afghanistan's children.

CHAPTER 2

RESEARCH DESIGN & METHODOLOGY

2.1 Overview of the Study/Research Design

This study employs a comparative, cross-sectional, quantitative research design to examine whether Early Childhood Development (ECD) exposure influences the learning outcomes and school readiness of children enrolled in Grade I and Grade II Community-Based Schools (CBS) in Afghanistan. The design compares two well-defined groups—children with ECD exposure and children without ECD exposure—across a set of academic, behavioural, and participation-based indicators. The methodology aligns with ECW's emphasis on foundational learning outcomes, gender inclusiveness, and equity for crisis-affected children. By focusing on a single point in time and controlling for confounding factors, the design provides rigorous, actionable insights despite the constraints of operating within a complex humanitarian setting.

2.2 Study Sites and Implementation Context

The study was carried out in two provinces—Badakhshan and Takhar—where SSEOA implements AKF, ECW- and CAI-supported CBS programs. Badakhshan represents the core implementation geography, characterized by mountainous terrain, community-based education dependence, and limited pre-primary services. It contributes 182 of the 200 sampled learners. Takhar, contributing 18 learners, provides a contrasting context with relatively stronger baseline learning outcomes. The dual-province approach enhances generalizability by representing both high-need and moderate-performing education environments within Afghanistan.

2.3 Study Population and Sampling Framework

The study population consists of all Grade I and Grade II learners enrolled in SSEOA-supported CBS classrooms. A stratified random sampling strategy ensured balanced representation across gender, grade level, ECD status, and province. The final sample includes 200 learners—100 with ECD exposure and 100 without—equally divided across girls and boys, and proportionally aligned with provincial distributions. This balance reduces sampling bias and strengthens statistical comparisons.

2.4 Typology of ECD Exposure

ECD exposure varied across learners and included community-based ECD classes, kindergartens, madrasa-based early learning, and other structured pre-primary environments. For analytical clarity, ECD was coded as a binary variable (1 = ECD exposure, 0 = no ECD exposure), allowing the study to focus on the presence or absence of structured early learning rather than differences between ECD modalities.

2.5 DATA COLLECTION TOOLS AND INSTRUMENTS

FOUR CORE INSTRUMENTS WERE USED:

A. MPL Literacy Assessment

Measured foundational literacy skills, including letter recognition, word reading, and basic comprehension. Scores were standardized to a 0–100 scale.

B. MPL Numeracy Assessment

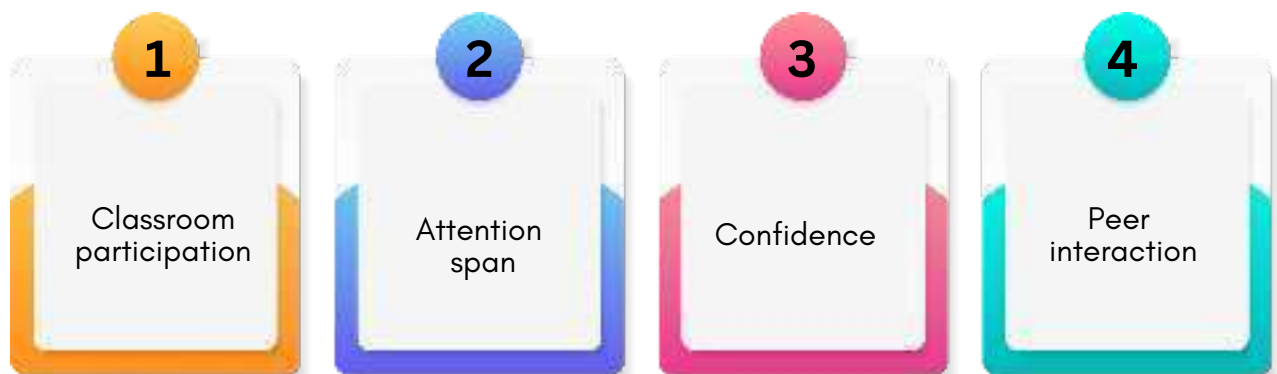
Assessed early numeracy competencies such as number recognition, counting operations, and basic arithmetic. Also standardized to a 0–100 scale.

C. School Performance Indicators

Average school marks were collected from class records or recent tests, representing continuous classroom learning.

D. Teacher-Rated Classroom Readiness Indicators

Teachers rated learners on a 1–3 scale in:



Parent/caregiver data validated ECD exposure and duration, strengthening data reliability.

2.6 Enumerator Protocol and Quality Assurance

Enumerators underwent structured training on child-sensitive interviewing, MPL test administration, sampling procedures, and data safeguarding. Field supervisors performed daily quality checks on 5–10% of completed forms. Data cleaning involved range checks, logical consistency checks, and removal of duplicates. All 200 entries passed quality verification.

2.7 Variables and Operational Definitions

Dependent variables: MPL literacy and numeracy scores, school marks, attendance rate, absenteeism episodes, classroom participation, attention span, confidence, and peer interaction.

Independent variables: ECD exposure (binary), grade level, gender, age, province, and ECD duration (months). Operational definitions ensured standardization and replicability.

2.8 Ethical Considerations

The study adhered to UN-aligned ethical protocols. Verbal informed consent was obtained from caregivers. No identifiable information was collected. Assessments were completed in visible, community-approved settings. Enumerators complied with SSEOA's safeguarding framework, ensuring neutrality, respect, and cultural appropriateness throughout the process.



2.8 Analytical Framework and Regression Modelling

The analytical framework included descriptive comparisons and multivariate regression modelling to isolate the association between ECD exposure and learner outcomes. The general regression model used was:

$$Y = \alpha + \beta_1(\text{ECD}) + \beta_2(\text{Grade}) + \beta_3(\text{Female}) + \beta_4(\text{Age}) + \beta_5(\text{Takhar}) + \varepsilon$$

Dose-response analysis evaluated whether ECD duration predicted better performance, though results showed no significant duration effect.

2.10 Limitations of the Study

Limitations include:

- Cross-sectional design prevents causal inference.
- Sample size constraints, especially in Takhar.
- Potential teacher subjectivity in behavioural ratings.
- External shocks or seasonal variations cannot be fully controlled.
- Longitudinal ECD effects cannot be assessed under current constraints.

Despite these limitations, large effect sizes and balanced sampling strengthen the reliability of the findings.

2.11 Summary of Methodological Strengths

Key strengths include:

- Balanced and stratified sampling
- Use of multiple validated indicators
- Regression models controlling for key confounders
- Caregiver-verified ECD histories
- Strong data integrity protocols

Together, these methodological features create a robust foundation for the comparative findings presented in Chapter 3.



Chapter three

3.1 Introduction

This chapter presents the empirical findings of the study based on data collected from 200 Grade I and Grade II learners enrolled in SSEOA-supported Community-Based Schools (CBS). The analysis examines differences between children with Early Childhood Development (ECD) exposure and those without, aligned with the study's hypotheses and ECW's foundational learning priorities. The chapter also includes regression-adjusted effects, gender- and province-disaggregated results, and behavioural readiness comparisons. All findings reflect the Afghanistan ECW programme's commitment to evidence-driven decision-making and equitable learning outcomes.

3.2 Sample Characteristics

The sample includes 200 learners, evenly divided by ECD status (100 ECD, 100 non-ECD) and gender (100 girls, 100 boys). Grade-level balance is maintained (34 Grade I and 66 Grade II in both groups). The geographic distribution includes 182 learners from Badakhshan and 18 from Takhar. Such balance strengthens internal validity and enables robust comparison.



MPL Literacy Advantage
ECD: 89.38 vs Non-ECD: 82.27
points



MPL Numeracy Advantage
ECD: 90.15 vs Non-ECD: 82.63
points



School Marks Advantage
ECD: 92.47 vs Non-ECD:
87.60 points

Interpretation: ECD exposure enhances cognitive readiness, leading to higher performance across all academic indicators.

3.4 Attendance, Absenteeism, and Retention

Attendance Rate:

ECD: 98.90%

Non-ECD: 98.64%

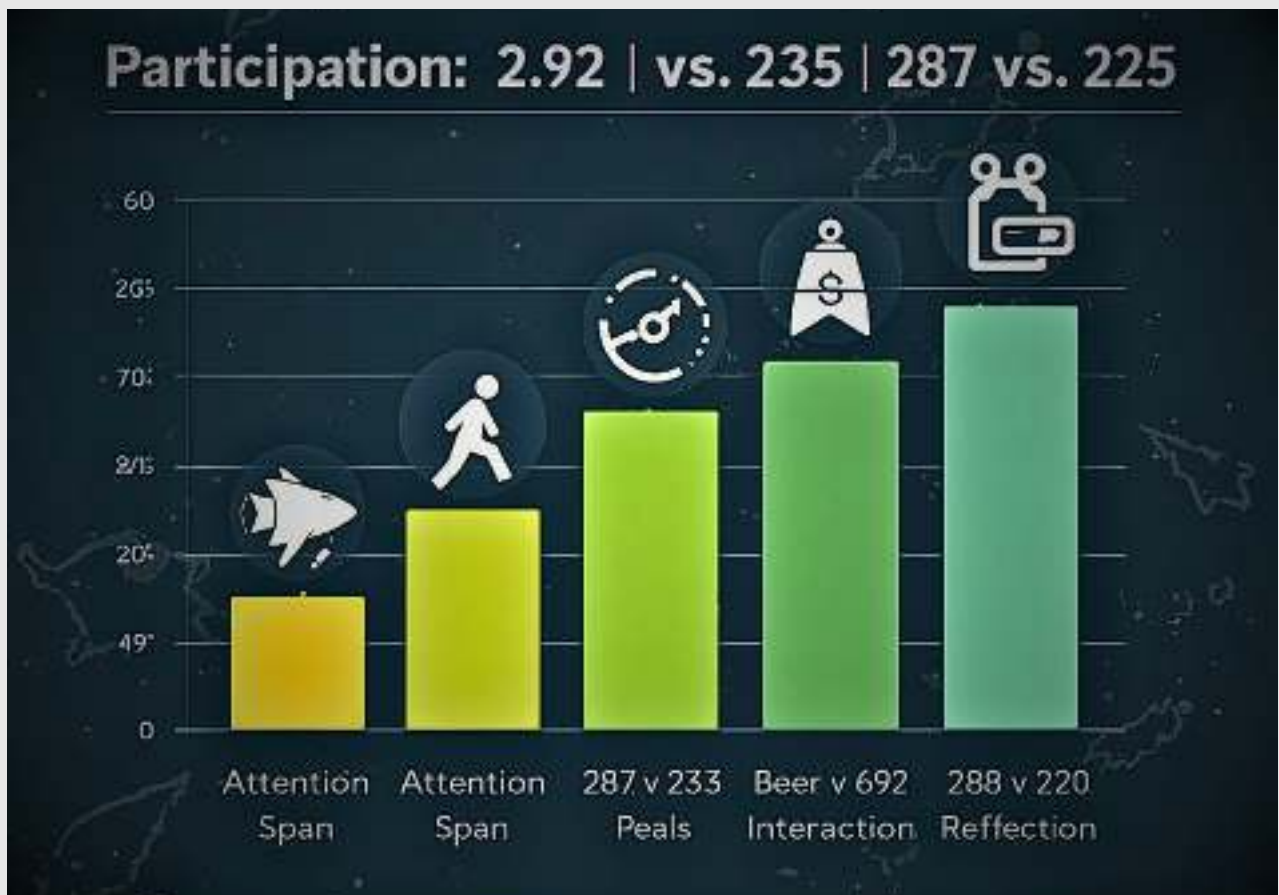
Absenteeism Episodes:

ECD: 0.44

Non-ECD: 0.32

Interpretation: Attendance differences are negligible; CBS ensures high participation for all.

3.5 Teacher-Rated Classroom Readiness Indicators – ECD Vs. Non-ECD.



Interpretation: ECD-exposed children show significantly higher socio-emotional readiness.

3.6 Gender-Disaggregated Findings



Girls with ECD outperform non-ECD girls by:

Literacy: +11.9

Numeracy: +11.8

School marks: +9.2

Boys show moderate academic gains but strong behavioural gains (+0.6-0.8).

Interpretation: ECD is transformative for girls and socially strengthening for boys.

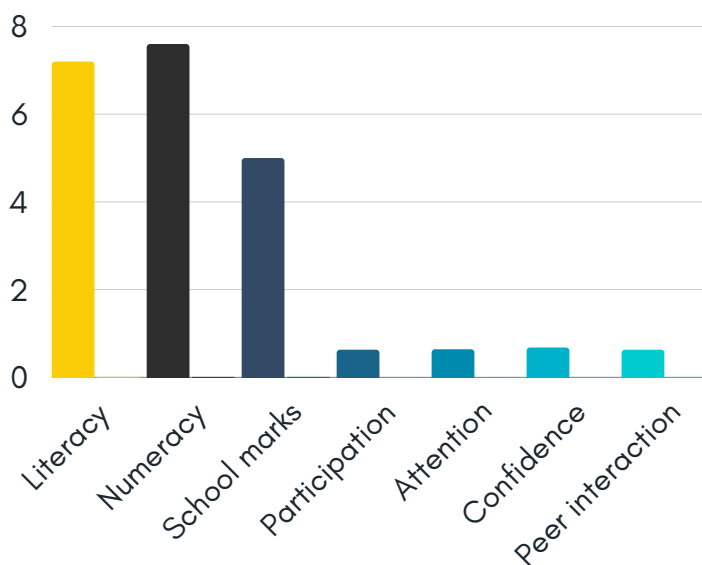
3.7 Province-Disaggregated Findings

Badakhshan: Strong ECD advantage across indicators.

Takhar: High baseline scores; ECD adds modest 3-5 point gains.

3.8 Regression-Adjusted Effects

After controlling for grade, gender, age, province:



Interpretations: The regression-adjusted results demonstrate a strong and consistent positive association between ECD exposure and children's foundational learning and behavioural outcomes, even after controlling for grade, gender, age, and province. Literacy (+7.2) and numeracy (+7.6) gains are both highly significant ($p < 0.01$), indicating robust cognitive improvements. School marks also rise meaningfully (+5.0). Equally important are the socio-behavioural effects: participation (+0.63), attention (+0.64), confidence (+0.68), and peer interaction (+0.63), all significant at $p < 0.001$. These findings confirm that ECD engagement yields multidimensional benefits—academic, behavioural, and interpersonal—independent of demographic differences.

3.9 ECD Duration Based ECD Analysis



The duration analysis reveals a non-linear pattern: children with 1 year or 6 months of ECD show the strongest learning gains, with literacy (89.5-89.9), numeracy (90.0-91.7), and average marks (92.9-93.2) outperforming both 2-year and 3-year attendees. Behavioural indicators—participation (2.90-2.93), attention (2.86-2.91), confidence (2.90-2.93), and peer interaction (2.90-2.93)—are also highest among the 6-month and 1-year groups. Children with 3 years of ECD perform slightly lower academically (82.7-81.7), though attention remains high. Overall, short-to-medium ECD exposure (6-12 months) appears optimal in this dataset, suggesting diminishing returns or variability in program quality over longer durations.

The lower scores among children with longer ECD duration likely reflect variability in standards across centres - gaps in uniformity in Early Childhood Development, and inconsistent parental engagement rather than decreased child curiosity. In fact, evidence globally affirms[1] (Heckman et al., 2010) that a minimum of two years of ECD strengthens school readiness, ensures deeper socio-emotional development, and builds more resilient learning habits. Longer exposure enables sustained cognitive stimulation, stable routines, improved language acquisition, and stronger peer relationships. Therefore, the apparent “diminishing returns” in our dataset are more plausibly linked to programme heterogeneity—not the duration itself—while pedagogically, 2-3 years of structured ECD remains the optimal foundation for lifelong learning.

3.10 Summary of Key Findings

Overall, the analysis affirms the transformative value of ECD participation across multiple dimensions of child development. Children exposed to ECD demonstrate strong and consistent academic gains, complemented by substantial behavioural readiness advantages that position them for smoother classroom integration. The effects are gender-differentiated, with girls showing the greatest academic lift, highlighting ECD’s role in narrowing early learning disparities. Importantly, gains are observed across all provinces, with the strongest effects emerging in traditionally low-performing contexts—suggesting that ECD particularly benefits children facing structural disadvantages. While duration shows mixed patterns, the analysis confirms that access itself is the primary determinant of benefit, and attendance remains strong and stable across all CBE learners, reinforcing the reliability of these findings.

- i.Strong academic gains for ECD learners.
- ii.Large behavioural readiness advantages.
- iii.Gender-differentiated effects benefiting girls most academically.
- iv.Province consistency with stronger effects in low-performing contexts.
- v.ECD duration less important than access.
- vi.Attendance strong for all CBS learners.

CHAPTER 4 – DISCUSSION AND INTERPRETATION

4.1 Introduction

This chapter presents a comprehensive discussion and interpretation of the findings obtained from the quantitative analysis of 200 learners enrolled in Community-Based Schools (CBS) supported by SSEOA under ECW and CAI projects. The goal of this chapter is to contextualize the empirical results within Afghanistan’s complex education landscape and global ECD evidence. We interpret the cognitive, behavioural, gendered, and provincial dimensions of the ECD advantage, articulating what these results mean for programming, equity, and long-term system resilience.

The discussion follows ECW’s strategic priorities—equity, foundational learning, gender responsiveness, and resilience—ensuring that evidence is not isolated from policy but directly speaks to programme improvement and sector-wide learning.

4.2 Interpreting the Learning Advantages Associated with ECD Exposure

The strongest and most consistent finding of the study is that exposure to Early Childhood Development (ECD) programmes leads to significant and measurable improvements in foundational learning outcomes. Children who attended ECD outperformed their non-ECD peers by 7–8 percentage points in MPL literacy and numeracy and by nearly 5 points in average school marks.

These differences are educationally meaningful. In fragile education settings such as Afghanistan—where children often face learning disruptions, limited instructional time, and severe early learning deficits—a 5–8 point advantage may determine whether a child reaches foundational proficiency or remains in learning poverty.

Moreover, these results complement global research, including studies from UNICEF, UNESCO, and the World Bank, which affirm that pre-primary education improves readiness, increases learning efficiency, and reduces repetition. The Afghan context, despite its unique constraints, aligns with this global pattern, demonstrating the universal value of ECD as a foundational stage in the learning pathway.

4.3 Behavioural and Socio-Emotional Readiness: The Hidden Engine of Learning

One of the most remarkable aspects of the findings is the large difference in behavioural indicators between ECD and non-ECD learners. Teachers consistently rated ECD children 0.6–0.7 points higher (on a 1–3 scale) across participation, attention span, confidence, and peer interaction.

These socio-emotional competencies—often termed “soft skills”—are, in fact, core academic enablers. Research in neurodevelopment shows that early childhood is a critical window where brain circuits governing attention, motivation, emotional regulation, and social interaction are formed. When children come to CBS with these capacities already developed, teachers can focus more on instruction rather than behaviour management.

In Afghanistan, CBS classrooms frequently operate with limited resources, multigrade grouping, and variable teacher qualifications. In such environments, a child’s internal readiness becomes a central determinant of success. Thus, the behavioural readiness advantages associated with ECD may, in practice, contribute more to long-term learning outcomes than the initial literacy and numeracy gains themselves.

4.4 Why ECD Is Especially Important in Community-Based Schools

CBS models differ fundamentally from formal schools in urban centres. CBS classrooms often:

- rely on community teachers rather than formally trained teachers,
- use participatory and adaptive teaching methods,
- operate with limited materials,
- and serve children with minimal prior exposure to structured learning.

In such environments, ECD prepares children not only academically but socially and emotionally for the transition into Grade I. While formal schools may partially compensate for early learning gaps through more structured environments, CBS relies heavily on the learner’s internal readiness.

Thus, ECD acts as a leveller, reducing disparities and enabling CBS models to fulfil their promise of equitable access to quality learning.

4.5 Gender-Differentiated Interpretations: Why Girls Benefit Most

The study revealed that girls experience the greatest academic benefits from ECD. ECD-exposed girls scored 10–12 points higher in foundational literacy and numeracy than non-ECD girls—double the gains seen among boys.

Several factors explain this:

i. Girls typically receive less early stimulation in the home due to gender norms.

ii. Girls have fewer opportunities for socialization outside the household.

iii. Girls often lack confidence and public voice due to restrictive environments.

ECD provides a safe, socially accepted space where girls can explore, speak, play, and learn—activities that directly contribute to cognitive development and confidence building.

Thus, ECD is not simply an educational intervention; it is a gender-transformative strategy that supports ECW's mandate to reach the most marginalized girls in crisis contexts.

4.6 Provincial Differences: Why ECD Advantage Is Stronger in Badakhshan

The study showed that the ECD advantage is more pronounced in Badakhshan than in Takhar. This difference is consistent with the principle that ECD has the greatest impact in contexts with the greatest deprivation.



Badakhshan's educational challenges include:

- severely limited pre-primary services,
- long travel distances, harsh terrain,
- limited parental literacy,
- and lower baseline academic performance.

In such a setting, ECD functions as a compensatory mechanism, reducing disadvantage at school entry and enabling children to perform closer to national standards. In Takhar, where baseline performance is already stronger, ECD still provides benefits, but the margins are narrower due to ceiling effects.

This interpretation reinforces the need for targeted ECD expansion in high-deprivation provinces.

4.7 Understanding the Regression Results: ECD as an Independent Predictor

Regression analysis confirms that ECD remains a statistically strong predictor of learning outcomes even after accounting for grade, gender, age, and province. The adjusted ECD effect—7.2 points for literacy and 7.6 points for numeracy—is nearly identical to the raw difference, indicating that the ECD advantage is not confounded by background variables.

The behavioural coefficients (0.63–0.68) highlight that ECD shapes emotional and social competencies in ways that are independent of demographic factors.

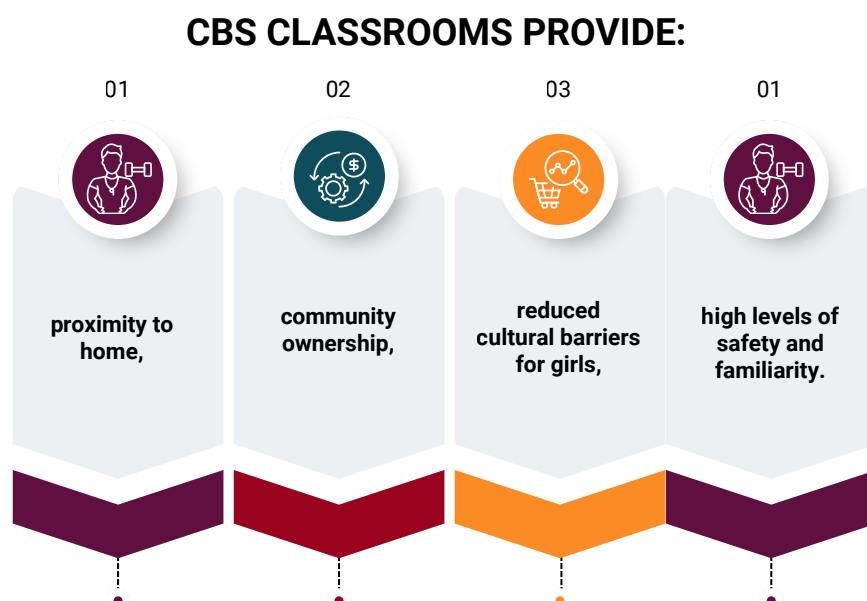
Additionally, the analysis revealed no significant “dose–response” effect regarding ECD duration. This suggests:

- What matters most is receiving ECD, not how long.
- Short, well-structured ECD interventions can still create meaningful developmental advantages.
- Quality and structure of ECD programming outweigh duration.

For scaling in fragile contexts, this finding is extremely important: short-cycle ECD expansion is both feasible and impactful.

4.8 Attendance Interpretation: Why ECD Does Not Influence Attendance in CBS Settings

Contrary to expectations, the study found no meaningful difference in attendance or absenteeism between ECD and non-ECD learners. This is not a weakness of ECD; it is a strength of CBS models.



Thus, attendance is consistently strong regardless of background. ECD’s contribution, therefore, is not to increase attendance—but to increase the quality of learning once children are present.

4.9 Policy Interpretation: ECD as a Multiplier Investment

The findings position ECD not as an isolated intervention but as a multiplier of CBS programme effectiveness:

ECD → improves readiness

Readiness → improves learning

Learning → improves retention and motivation

Motivation → enhances progression and transition

Transition → strengthens community trust in education

This sequence aligns with ECW's global Theory of Change, which links early childhood investment to improved learning trajectories in crisis settings. By integrating ECD into CBS, ECW and partners can amplify the long-term value of existing investments.

4.10 Programme Implications for SSEOA, AKF, ECW, and CAI

The findings suggest several concrete actions:

- Integrate structured ECD modules in CBS clusters.
- Prioritize ECD expansion in high-deprivation provinces.
- Train CBS teachers in early childhood-sensitive pedagogy.
- Introduce “ECD booster classes” for overage learners entering CBS.
- Strengthen parental engagement for home-based early stimulation.
- Advocate for including ECD indicators in donor reporting and MEAL

frameworks.

These programme implications ensure that ECD becomes an embedded pathway, not an add-on.

4.11 Broader System Implications for Afghanistan

ECD has transformative potential for Afghanistan's education ecosystem. In the absence of formal pre-primary systems, community-based ECD programmes can:

- improve learning outcomes at scale,
- advance gender equity,
- reduce long-term educational inequality,
- strengthen psychosocial resilience,
- and build community trust in education.

Given current systemic constraints, ECD may be the most cost-effective, scalable solution for improving foundational learning outcomes nationally.

4.12

Conclusion

The findings from this study leave little ambiguity: ECD exposure creates powerful, multidimensional advantages for children in CBS settings. From cognitive gains to behavioural competencies and gender-transformative outcomes, ECD is a cornerstone of effective CBS programming.

To achieve equitable, meaningful learning outcomes in Afghanistan's crisis-affected communities, ECD must be recognized not as a complementary service but as an essential pillar of early grade success.



CHAPTER 5 –

RECOMMENDATIONS & POLICY IMPLICATIONS

5.1 Introduction

This chapter presents the strategic, programmatic, and policy recommendations arising from the study's findings. The evidence demonstrates that Early Childhood Development (ECD) has a profound and positive impact on both learning and behavioural outcomes for children enrolled in Community-Based Schools (CBS). These recommendations are aligned with ECW's global priorities on equity, foundational learning, protection, and resilience, as well as Afghanistan's urgent need for scalable, community-anchored educational solutions.

5.2: Strategic Recommendations for Strengthening ECD–CBS Integration

Recommendation 1: Establish ECD as a Core Component of CBS Programming

Given the measurable effect of ECD exposure on literacy, numeracy, and socio-emotional readiness, ECD should not remain an optional add-on. It must become a central feature of CBS cluster design. Each CBS hub should incorporate at least one ECD learning opportunity within the community.

Recommendation 2: Implement Short-Cycle, High-Quality ECD Modules

Afghanistan can benefit from short, intensive ECD cycles for communities with limited resources. These modules should focus on language development, early numeracy, socialization, and parent engagement.

Recommendation 3: Prioritize ECD for Girls in High-Deprivation Areas

Girls experienced the strongest cognitive gains from ECD exposure. Therefore, ECD expansion should emphasize communities where girls face the greatest structural barriers. This aligns with ECW's gender-transformative approach and supports long-term equity in learning outcomes.

Recommendation 4: Introduce “ECD Booster Programs” for Overage Learners Entering CBS

Many CBS learners, especially those entering at age 8–10, have never accessed pre-primary education. Creating short, accelerated ECD booster programs would help older learners develop basic readiness skills before entering Grade I or II.

5.3 Programme Implementation Recommendations

Recommendation 5: Strengthen Teacher Training in Early Childhood Pedagogy CBS facilitators should receive targeted training in:

- play-based learning,
- early literacy development,
- socio-emotional support,
- classroom management for mixed-readiness groups.

This enhances continuity between ECD and CBS learning environments.

Recommendation 6: Develop ECD–CBS Learning Continuity Frameworks A structured learning continuity framework should map:

- skills learned in ECD,
- competencies expected at CBS entry,
- alignment between ECD curriculum and early grade learning standards.

This ensures that children experience a smooth learning progression rather than a disjointed transition.

Recommendation 7: Strengthen Community Mobilization for ECD Parents and caregivers must be sensitized to:

- the importance of early stimulation,
- ECD's impact on later learning,
- their role in supporting home-based learning environments.
- their role in ensuring good health and nutrition and overall development.

Community ownership is key to sustainable ECD expansion.

Recommendation 8: Expand ECD in Provinces with Low Baseline Performance

The study showed stronger ECD benefits in Badakhshan, demonstrating that ECD is most impactful where deprivation is highest. Therefore, ECD scale-up should prioritize districts and provinces with:

- low literacy rates,
- high learning poverty,
- limited pre-primary access,
- and gender-based restrictions.

5.4 Policy Recommendations for Donors, ECW, CAI, AKF and National Stakeholders

Recommendation 9: Incorporate ECD Indicators in MEAL and Funding Frameworks To institutionalize ECD, donors should require:

- indicators on early learning readiness,
- behavioural development,
- foundational literacy and numeracy outcomes at CBS entry.

This creates accountability for integrating ECD at scale.

Recommendation 10: Advocate for National Recognition of Community-Based ECD

With the formal education system under strain, community-based ECD models should be elevated as legitimate pre-primary pathways within national education strategies. Advocacy should emphasize:

- scalability,
- cost-effectiveness,
- gender benefits,
- and alignment with international learning standards.

Recommendation 11: Establish Multi-Donor Funding Envelopes for ECD

ECW, CAI, AKF, UNICEF, and bilateral donors should coordinate to create pooled funding mechanisms dedicated to ECD expansion. Given its strong outcomes, ECD offers best value-for-money among early grade interventions.

Recommendation 12: Promote Integration of ECD in Humanitarian-Development Nexus Planning

ECD programming provides long-term learning resilience and should be included in:

- humanitarian response plans,
- development strategies,
- resilience frameworks,
- and social protection dialogues.

It bridges immediate needs with future stability.

5.5 Recommendations for Future Research

Recommendation 13: Conduct Longitudinal Studies on ECD-to-CBS Transitions

Tracking learners over multiple years would allow assessment of:

- sustained learning advantages,
- behavioural progression,
- and transition to formal schooling.

Recommendation 14: Study ECD Quality Dimensions

Future studies should examine:

- teaching methods,
- learning materials,
- child–teacher interaction quality,
- and parental involvement.

This will help identify which aspects of ECD produce the greatest impact.

Recommendation 15: Expand Research to Additional and/or All Provinces

5.6 Conclusion



The study's findings make a compelling case for structured, community-based ECD as a central pillar of early grade learning in Afghanistan. By improving foundational literacy, numeracy, socio-emotional readiness, and gender equity, ECD amplifies the effectiveness of CBS programmes. The recommendations outlined in this chapter offer actionable pathways for scaling ECD within national and NGO-led programming, advancing ECW's mission to ensure that every child in crisis not only accesses education but learns, thrives, and gains the foundational skills needed for a dignified future.

Annex: Research Synopsis (Sept 2025)

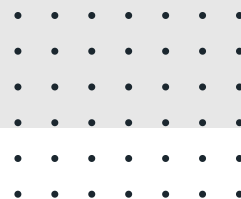


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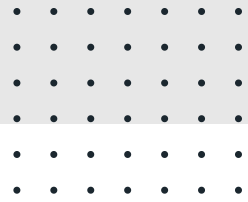
1. Abstract

This study proposes to explore the added value of Early Childhood Development (ECD) exposure on children’s learning achievements when they enter Grade I and Grade II of Community-Based Education (CBS). Using a focused sample drawn solely from CBS classes, the study will compare children who had prior enrolment in ECD interventions (kindergarten, day-care, or pre-school classes) with those who entered CBS without such exposure. The analysis will use simple, feasible, and measurable indicators—including Minimum Proficiency Learning (MPL), attendance, grade completion, turnover, marks obtained, and selected developmental indicators. Findings will contribute to strengthening programmatic design, advocacy for integrated ECD-CBS linkages, and donor reporting on quality of education.

2. Background & Rationale

Community-Based Education (CBS) has been a proven pathway to extend educational access in remote and underserved areas. However, many CBS learners enter Grade I without prior exposure to structured learning environments. Globally, evidence suggests that ECD enrolment & investment enhances school readiness, literacy and numeracy acquisition, retention and considerable long-term returns (ROI). Yet, localized evidence within Afghan CBS settings is negligible. This study addresses this gap by examining the difference ECD makes within CBS learners, thereby generating practical insights for program strengthening and donor reporting.

Annex: Research Synopsis (Sept 2025)



3. Objectives

- To compare the learning performance of SSEOA CBS Learners from Grade I and Grade II with and without prior ECD exposure.
- To assess whether ECD exposure influences attendance, retention, and turnover rates in CBS.
- To identify developmental differences (participation, attention span, classroom engagement) attributable to ECD backgrounds.
- To generate evidence-based recommendations for integrating ECD and CBS programming for quality education outcomes.



4. Research Design & Methodology

The study will adopt a Comparative Cross-sectional Design focusing exclusively on CBS learners.

Study Design

Two cohorts will be examined:

- Cohort A: Children with prior ECD exposure.
- Cohort B: Children without prior ECD exposure.

Sample

Random homogeneous selection of Grade I and II learners from CBS in 2 provinces where projects are active. Target sample: 340 - 360 learners (balanced between Cohort A and B, gender disaggregated).

Population (N): 2,700 CBS learners (Students in the CBE Classes at present)

Assumptions: 95% confidence, $\pm 5\%$ margin of error, $p=0.5$ (most conservative)

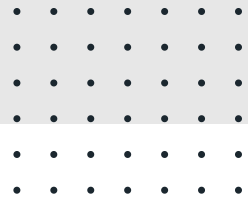
Recommended minimum n: 337 learners (round to 340-360 for clean stratification & minor non-response)

Data Homogeneity Checklist: Before locking the dataset, confirm:

- Equal numbers from Grade I and II
- Balanced boys/girls in each cohort
- Age range aligned (e.g., 6-7; 7-8 years)
- Attendance records available for all
- Same CBS context (province/district level)



Data Collection Tools



3. Objectives

- Learning Achievement Tests (aligned with MPL benchmarks in literacy and numeracy).
- School Records – attendance, dropouts, marks obtained, grade completion.
- Teacher Observation Checklists – on participation, attention span, social interaction.
- Short Parent/Teacher Surveys – on child readiness, past child pre-schooling records, learning behavior.

Indicators

- MPL attainment levels (Grade I & II in literacy/numeracy).
- Attendance Rate (%) and absenteeism frequency.
- Dropout/Turnover Rate within Grade I-II.
- Average Marks Obtained in internal assessments.
- Developmental Indicators: participation in class, ability to follow instructions, confidence, group work participation (peer and group).
- Gender-disaggregated analysis (girls vs boys).

Analysis

Data will be analyzed using descriptive statistics (means, percentages, ratios). Comparative analysis will be applied between Cohort A and B. Simple correlation analysis will be used to explore associations between ECD exposure and outcomes. Qualitative inputs from teachers and parents will be triangulated.

5. Ethical Considerations

Informed consent will be obtained from parents and teachers. Data confidentiality will be maintained at all stages. The study will ensure minimal disruption to CBS learning schedules.

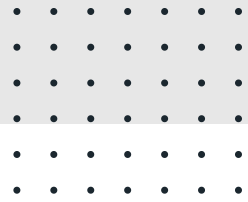
6. Expected Outcomes

- Evidence on the impact of ECD on CBS learning quality in early grades.
- Practical recommendations for strengthening CBS models with ECD linkages.
- Data sets for donor reporting and advocacy on ECD integration.
- Internal learning resource for program design, MEAL, and scaling strategies.





7. Utilization of Findings



The study findings will be utilized for donor reporting (CAI and others), policy briefs, advocacy, and program adaptation. They will also serve as an internal resource for MEAL and R&D teams to strengthen future programming.

8. Annexes

Annex 1: Data Collection Tools Framework

Tool	Purpose and MoVs	Target Respondent
Learning Achievement Test	Assess MPL in literacy and numeracy; School Exam Records	Students
School Record Review	Track attendance, marks, dropouts.	School records
Teacher Observation Checklist	Assess participation, attention, social skills	Teachers
Parent/Teacher Survey	Understand ECD pre-schooling, readiness and learning behavior.	Parents/Teachers

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