FOOD FOR THE HUNGRY

Summary of Education Assessment

(IDELA-CLA-Caregivers)

Results and Recommendations

Bolivia- Aug 2022

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ACRONYMS

AP	Area Program
BL	Baseline
CFCT	Child Focused Community Transformation
CLA	Citizen Led Assessment
FH	Food for the Hungry
FHB	Food for the Hungry Bolivia
IDELA	International Development and Early Learning Assessment
INE	Statistics National Institute
KPI	Key Performance Indicator

I. EXECUTIVE SUMMARY

The purpose of the Education inquiry is to evaluate the development and learning of small children (3.5 to 6.5 years old) in the mastery of: emergent literacy, emergent numeracy, social emotional skills and motor development; in the same way, to become acquainted with the performance of the nine-year-old children, if they are able to meet the literacy and numeracy standards of third grade; and finally, the influence of the caregiver on the performance of the child.

1.1 Investigation Questions

Investigation Questions For Children Aged 3.5 To 6.5 Years Old

- What proportion of children aged 5.5 to 6.5 years old passed from the difficulty category on to the emergent category? From the emergent category to the mastery category?
- In each domain, what proportion of children aged 5.5 to 6.5 years old passed from the struggling category on to the emergent category? From the emergent category to the mastery category? What domains have improved more? What domains have been left behind?
- Are the children attaining the appropriate development from year to year?
- Which domains have improved the most? Which domains are the most behind?
- Has one of the genders improved more than the other?
- How do the results per Area Program differ?

Investigation Questions For Children Aged 7 To 15 Years Old

- Do the children have greater benefits in numeracy than in literacy? Or vice versa?
- Did one of the genders improve more than the other?
- Are there differences between the results of the Area Programs?
- Are there more children that attend learning opportunities outside of school than in the Baseline?
- What changes have been produced in the proportion of the children who are read to or who read to others at home?

Investigation Questions For Caregivers

- What behaviors of the caregivers have increased over time?
    1. Books in the home
    2. The caregiver participates in the learning activities in the home

3. The caregiver's knowledge of the grade requirements of learning
4. Attending school
5. Designated space for study
6. The caregiver meets with the child's teacher
7. Timely entrance to first grade
8. Preschool attendance
9. Reviews the child's homework for presentation
10. Participation in the lessons on child stimulation, success in the first grades, toxic stress

Investigation Questions For The Cross Tabs

- Is there a difference between the reference results (IDELA KPI) (Key Performance Indicator) for children in HH where the child has three or more children's books?
- How does preschool attendance affect the child's capacity to surpass the literacy and numeracy standards of third grade (Baseline)? [Probability Index]
- How does preschool attendance affect the capacity of the child to pass the literacy and numeracy standards of third grade (Evaluation)? [Probability Index]
- Is there evidence that preschool attendance affected the results of the Assessment more than the Baseline to know if the child can pass the literacy and numeracy standards of third grade? [Probability Index: confidence interval]
- How does the caregiver's knowledge of the grade requirements influence if the child is able to pass the literacy and numeracy standards of third grade (Baseline)? [Probability Index]
- How does the caregiver's knowledge of the grade requirements influence the capacity of the child to be able to pass the literacy and numeracy standards of third grade (Evaluation)? [Probability Index]

- Is there proof that the caregiver's knowledge of the grade requirements affected the results of the Assessment more than the Baseline so that the child passes the literacy and numeracy standards of third grade? [Probability Index]

- How do the extra-curricular learning activities increase the capacity to surpass the Assessment (Baseline)? [Probability Index]

- How do the extra-curricular learning activities increase the capacity to pass the Assessment (Baseline)? [Probability Index]

- Is there proof that the extra-curricular learning activities affected the results of the Assessment more than the Baseline to increase the capacity to pass the Assessment? How do the extra-curricular learning activities increase the capacity to surpass the Assessment (Baseline)? [Probability Index]

- In what way does a supportive reading environment increase the capacity of a child to surpass the Assessment (Baseline)? [Uneven Proportion]

- How does a supportive reading environment increase the capacity of a child to pass the Assessment (Evaluation)? [Probability Index]

- Is there proof that a supportive reading environment affected the results of the Assessment more than the Baseline to increase the capacity to pass the Assessment? [Probability Index]

- How does school absenteeism influence the capacity to surpass the Assessment (Baseline)? [Probability Index]

- How does school absenteeism influence the capacity to pass the Assessment (Evaluation)? [Probability Index]

- Is there proof that school absenteeism affected the results of the Assessment more than the Baseline to influence the capacity to pass the Assessment? [Probability Index]

- How does the timely entry into first grade affect the capacity to pass the Assessment (Baseline)? [Probability Index]

- How does the timely entry into first grade affect the capacity to pass the assessment (Evaluation)? [Probability Index]
- Is there proof that the timely entrance to first grade affected the results of the Assessment more than the Baseline to influence the capacity to pass the Assessment? [Probability Index]
- Do caregivers of children aged 7 to 15 years old engaging in learning activities influence whether a child can meet the literacy and numeracy standards (Baseline)? [Probability Index]
- Do caregivers of children aged 7 to 15 years old engaging in learning activities influence whether a child can meet the literacy and numeracy standards (Evaluation)? [Probability Index]
- Is there proof that caregivers of children aged 7 to 15 engaging in learning activities affected the Assessment more than the Baseline to influence the capacity to surpass the Assessment? [Probability Index]
- Does the fact that the caregivers of children aged 7 to 15 years old regularly meet with the teachers influence if the child can meet the literacy and numeracy standards (Baseline)? [Odds Ratio]
- Does the fact that the caregivers of children aged 7 to 15 years old regularly meet with the teachers influence if the child can meet the literacy and numeracy standards (Evaluation)? [Odds Ratio]
- Is there proof of the fact that the caregivers of children aged 7 to 15 years old that regularly meet with the teachers affects the results of the Assessment more than the Baseline to influence the capacity to surpass the Assessment? [Odds Ratio]
- Does the fact that caregivers of children aged 7-15 years old provide a specific place for study influence whether a child can meet the literacy and numeracy standards (Baseline)? [Odds Ratio]

- Does the fact that caregivers of children aged 7-15 years old provide a specific place for study influence whether a child can meet the literacy and numeracy standards (Evaluation)? [Odds Ratio]

- Is there proof of the fact that providing a specific place for study for the child (7-15 years old) affected the results of the Assessment more than the Baseline to influence the capacity to pass the Assessment? [Odds Ratio]

- What activity or intervention (from the previous list) has a greater effect in the compliance with the standards for literacy, numeracy and both (literacy and numeracy)? [Logistic Regression]

1.2 Assessment Objectives

- Determine the total IDELA score of children aged 5.5 to 6.5 years old. (The score will be a percentage that represents the average of the children of this age group in all of the domains.)
- Determine the % of the children of the nationally recommended age for completion of grade 3 that have met the literacy and numeracy standards for grade 3.
- Learn about the progress and the education competency status of the children in areas where FH Bolivia intervenes comparing the reference values with the results of the Final Assessment.
- Evaluate the level of school preparation and success of the first grades.
- Identify the gaps and recommend solutions for the implementation of the education programs in FH Bolivia.

1.3 Purpose Of The Assessment

The purpose of the Assessment is to establish the state of progress of the Key Performance Indicators of education in all the Area Programs of FH Bolivia and based on the obtained results to have studies that orient the decision making based on evidence so as to improve the quality of the future programing.

II. BACKGROUND

The Education Sector in Bolivia began in the year 2017 as a pilot project through interventions with children and caregivers of preschool and elementary levels in some of the communities FHB works in. In July 2019 the Baseline was carried out and from that point on the development of the project implemented: Developing A Child's Potential, later on called Principle Education, focused on strengthening the capacities of the caregivers and teachers of children in preschool and the first three elementary grades. In March 2020 the academic activities were paralyzed due to the covid 19 pandemic, which led to the compulsory closing of the schools until February 2022. Bolivia holds second place on a global level with the longest school closure. In March 2022 a Mid-Term Assessment was made, having had almost two years of intervention starting from the Baseline, having passed through a pandemic which exacerbated a preexisting education crisis in the country, affecting not only the students but also the teachers and parents in their teaching and supporting role in the learning of their children at home. Despite this crisis, FHB continued to set forth the planned activities with the caregivers and teachers remotely in the Peri-urban as well as Rural Areas with the purpose of mitigating the impact of the school closure and contributing to the continuity of the education and learning of the students in vulnerable communities with the following interventions:

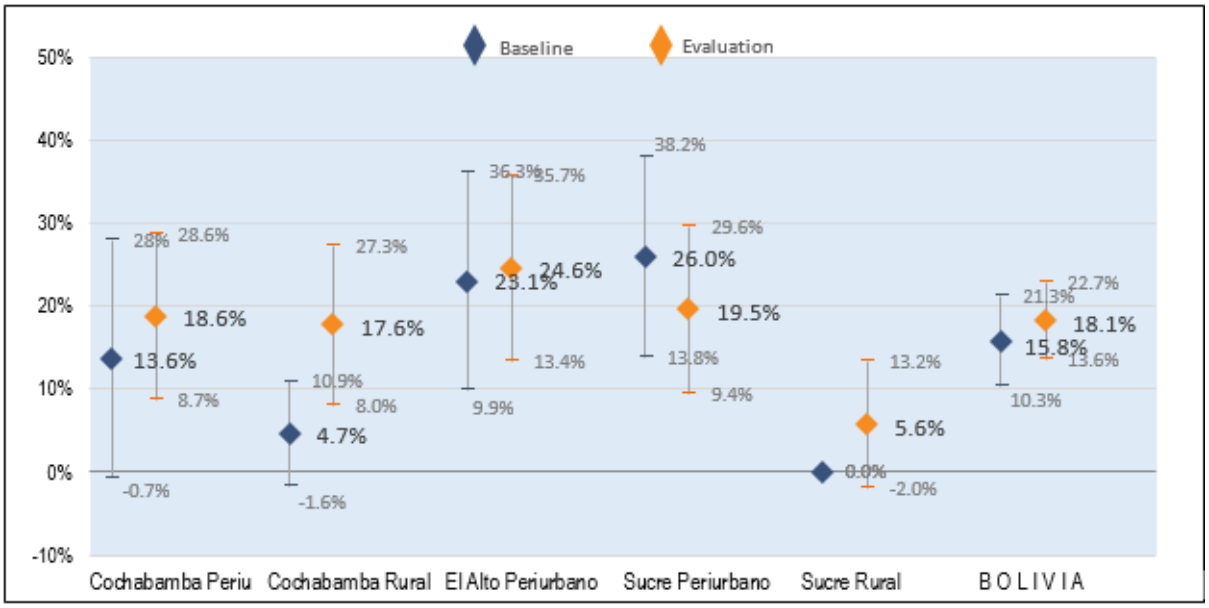
1. Strengthen the capacities of school readiness, success in the grade and positive upbringing with caregivers of children aged 4 to 9 years old
2. Strengthen the teaching skills through workshops about the use of innovative tools for teaching literacy, numeracy and psychosocial support for children, with teachers.
3. Educative sessions in the clubs: "more than conquerors" and AMO groups with children aged 6 to 12 years old, which was done up until 2019.

III. Results Of The IDELA Inquiry

The preparation of a child for school is related to the academic results; the children that enter school ready to learn have more probabilities of performing well and to complete successive school levels. IDELA assesses the early development and learning of small children (aged 3.5-6.5 years old) in social emotional development, emergent numeracy, emergent literacy and motor skills.

3.1 Proportion Of Children, Aged 5.6 To 6.5 Years Old, That Have Mastered Skills Of IDELA.

Graphic N°1: Proportion Of Children, Aged 5.6 To 6.5 Years Old, That Have Mastered IDELA Skills

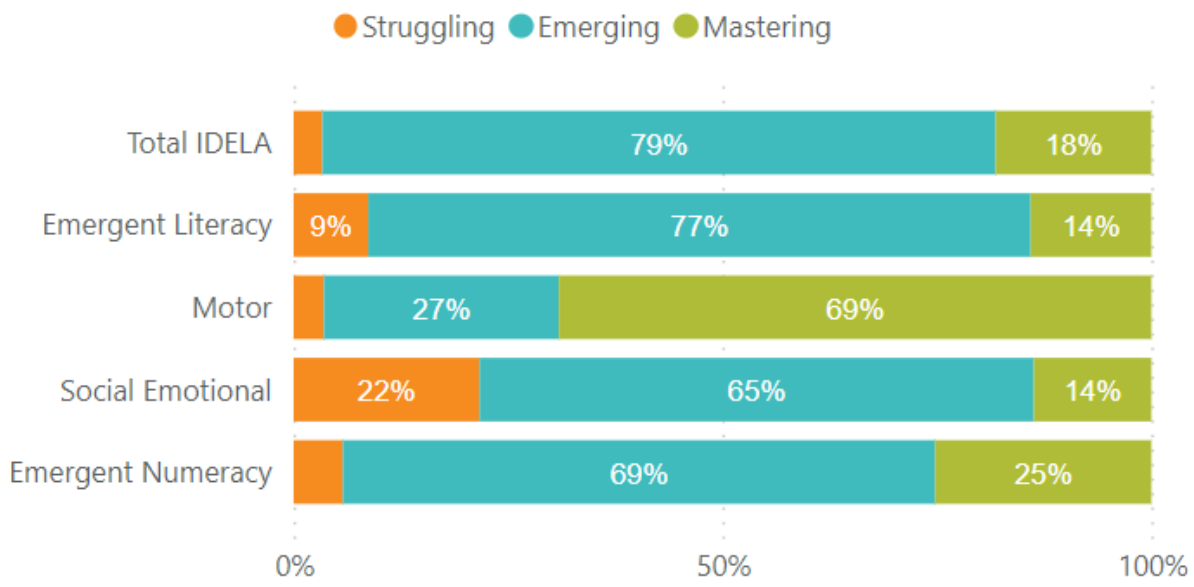


Graphic 1 shows that the percentage of children aged 5.6 to 6.5 years old that have mastered the IDELA skills in Bolivia increased slightly, 2.4 percentage points since the Baseline at 15.9%, finalizing with 18.1% in 2022, i.e. that 2.4% of the children passed from the emergent category on to the mastery category. The greatest increase can be observed in Rural Cochabamba with 13 percentage points above the Baseline value, going from 4.7% to 17.6%, being statistically significant; one of the factors that helped increase the percentage in the Rural Area of Cochabamba was the children's attendance to in-school classes in 2021, despite the pandemic, due to the pressure of the parents. This was different from Peri-urban Sucre, which was the only Area Program that reduced the percentage of children that mastered the IDELA skills by 6.5 percentage points, dropping from 26% down to 19.5%. This was due to the school closure of the preschool or elementary level, which was compulsory in the country and included children aged 4 to 6. The children were enrolled in preschool in the Elementary level, but didn't have school during 2020 and 2021 due to the compulsory school closure; added to this was the lack of economic resources of the families that were more worried about obtaining money for the livelihood of their families than for the preschool education of their children, and the lack of strategies and knowledge about digital platforms by the teachers of this level to have virtual classes with the children of that age.

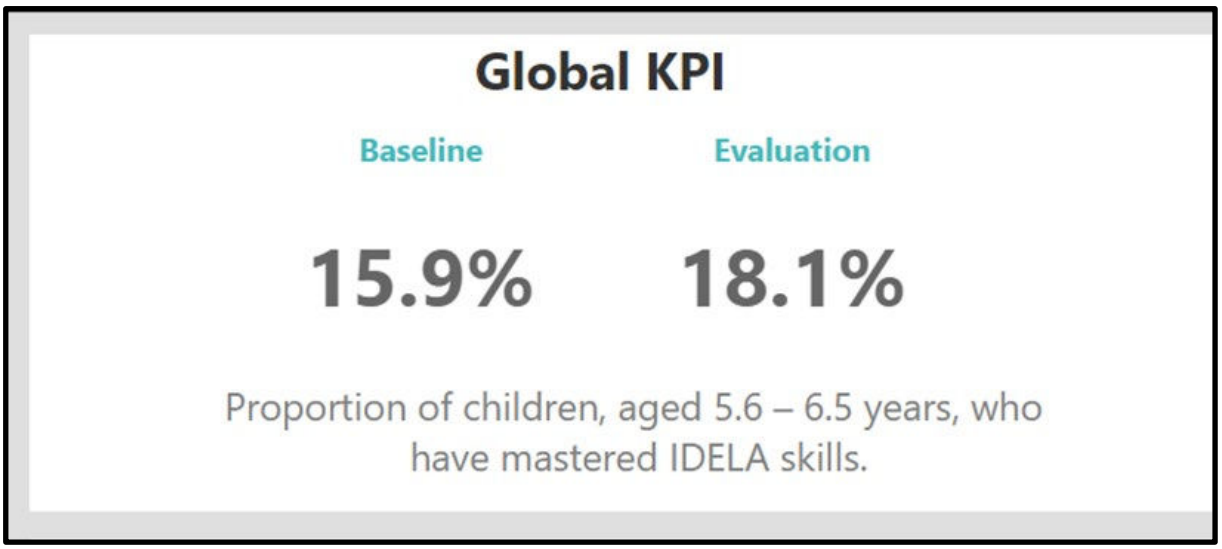
In the other Area Programs, there was a slight increase; however, the variations obtained are not statistically significant.

3.2 Proportion Of Children, Aged 5.6 To 6.5 Years Old, According To Mastery And Skill Level.

Graphic N°2: Proportion Of Children, Aged 5.6 To 6.5 Years Old, According To Mastery And Skill Level

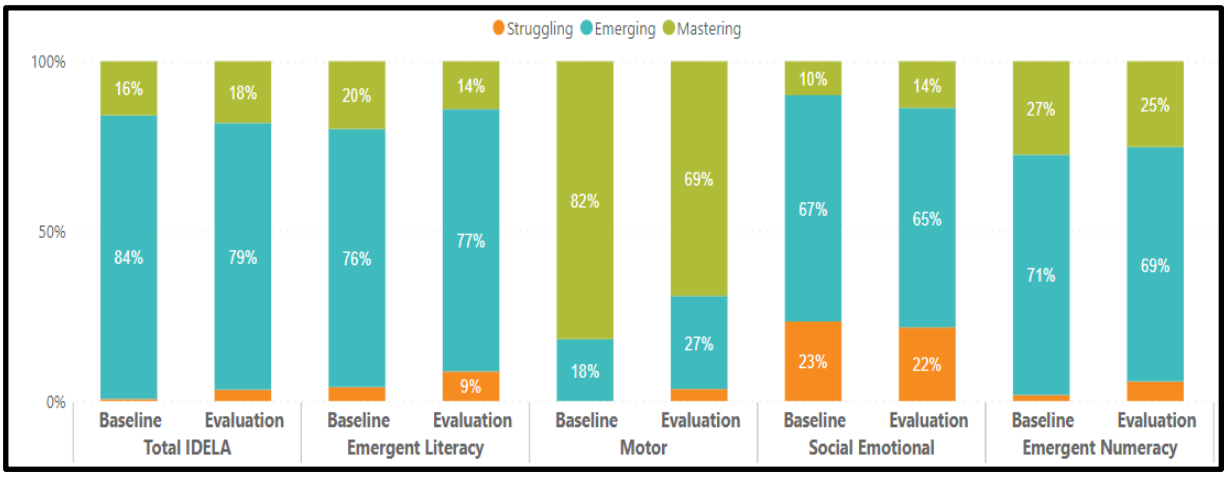


Graphic 2 shows us that 18.1% of the children aged 5.6 to 6.5 years old achieved a level of Mastery in IDELA; 79% attained an emergent level and 3.33% of the children are in the struggling level. In the four domains of IDELA, the children of this age prosper the most in motor skills with 69% of children mastering these skills and 27% of children in the emerging category, followed by emergent numeracy with 25% of the children mastering the skill, 69% are in the emerging level and 5.74% in the struggling level; in emergent literacy skills, 14% of children are mastering the skill, 77% of children are emerging and 9% of children are in the struggling level. Finally, in the socio emotional domain, 65% of the children are in the emerging level, 14% in mastering and 22% in struggling.



The figure above shows a 2.2 percentage point increase in the Proportion Of Children, Aged 5.6 To 6.5 Years Old, who have Mastered IDELA skills from Baseline to Final Evaluation.

Graphic N°3: Comparative Variation In The Proportion Of Children Aged 5.6 To 6.5 Years Old According To Mastery And Skill Level



Regarding the mastery of the skills, as we can observe in graphic 3, the total score of IDELA shows that the children that struggle slightly increased 2.74 percentage points in relation to the Baseline 2019; however, the children in the emergent category decreased 5 percentage point going from 84% of the BL down to 79% on the Mid-Term Assessment; this indicates that 2.27% of the children went from the emergent category to the mastery domain.

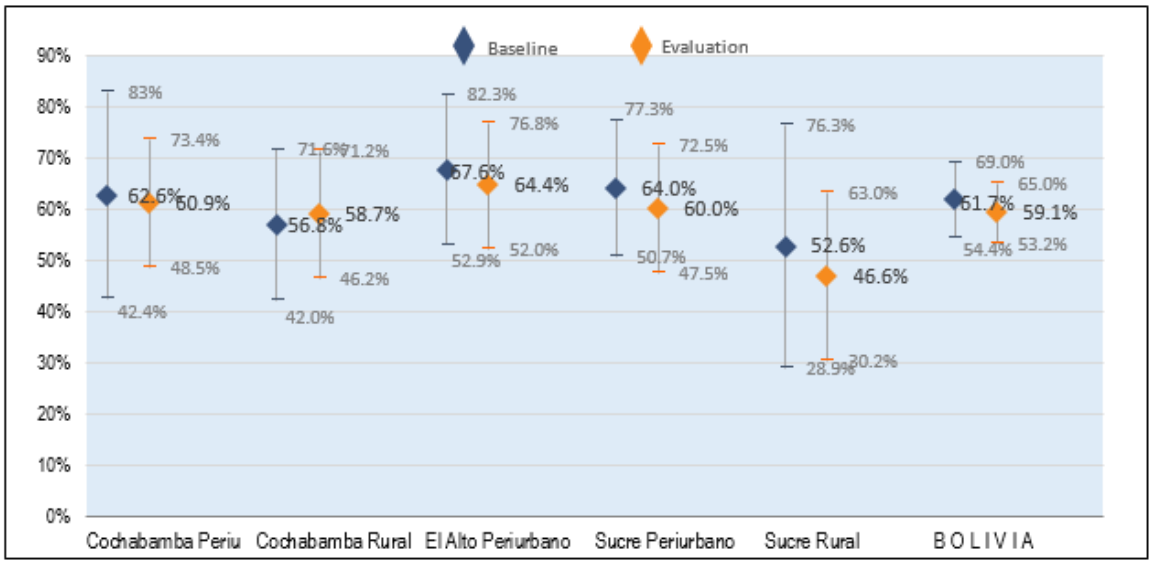
In the emergent literacy domain, the percentage of children in the struggling category increased by 4.61% percentage points, i.e. from 4.09% in the Baseline to 8.7% in the Mid-Term Assessment; the same with the children in the emerging category: there was an increase of 1.2

percentage points, while those that had mastered emergent literacy has decreased 6 percentage points; the same in the emergent numeracy mastery: there is an increase of 4 percentage points in children in the struggling category and a decrease of 2 percentage points in the category of children that master the skill. In the motor skills domain, even though in the Baseline there were no children in the struggling category; 3.52% of children are in this category at evaluation, and there is a 13% decrease in the percentage of children that master motor skills. On the other hand, there is a 4% increase of children that went from the emerging category to the mastering category in the social emotional area, even though in the struggling category there is a slight increase of 1%.

The interventions of the education sector were oriented towards the training of the caregivers of children aged 4 to 6 years old with Module 1 focused on toxic stress in the homes, talks about the importance of social emotional development of the children and lessons of positive upbringing, besides the distribution of children's books for them to read at home with their children while the schools remain closed.

3.3 Total Score Of IDELA Of Children Aged 5.6 To 6.5.

Graphic N°4: Total Score Of IDELA Of Children Aged 5.6 To 6.5. Years Old

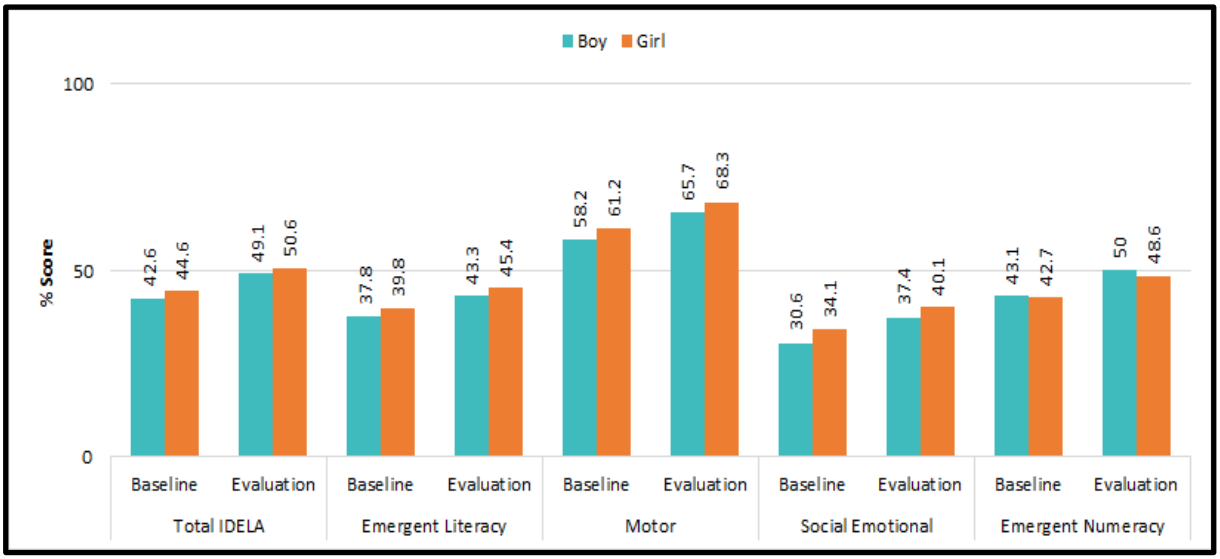


The IDELA score in children of the 5.6 to 6.5 years old age group was reduced on a national level by 2.6 percentage points, going from 61.7% in the Baseline, done in July 2019, until finalizing at 59.1% in March 2022; the largest reduction occurred in the Area Program of Rural Sucre with 6.0 percentage points, followed by Peri-urban Sucre with a reduction of 4 percentage points. Peri-urban El Alto reduced its IDELA score by 3.2 percentage points and

Peri-urban Cochabamba by 1.7 points. Rural Cochabamba was the only Area Program that increased with regard to the Baseline with 1.9 percentage points, however, these changes were not statistically significant, as we can see in graphic 4. One important fact to consider is that the Baseline was done in July 2019, and in March 2020 the schools were being closed by the covid pandemic until February 2022. Nonetheless, the interventions of the Education Sector with the training of the caregivers in getting the children ready for school and the delivery of books continued through remote actions, which helped in preventing a great magnitude of percentage drop in the IDELA score.

3.4 Total IDELA Score Of Children Aged 5.6 To 6.5 Years Old, By Gender.

Graphic N°5: Average IDELA Score Comparison, By Gender



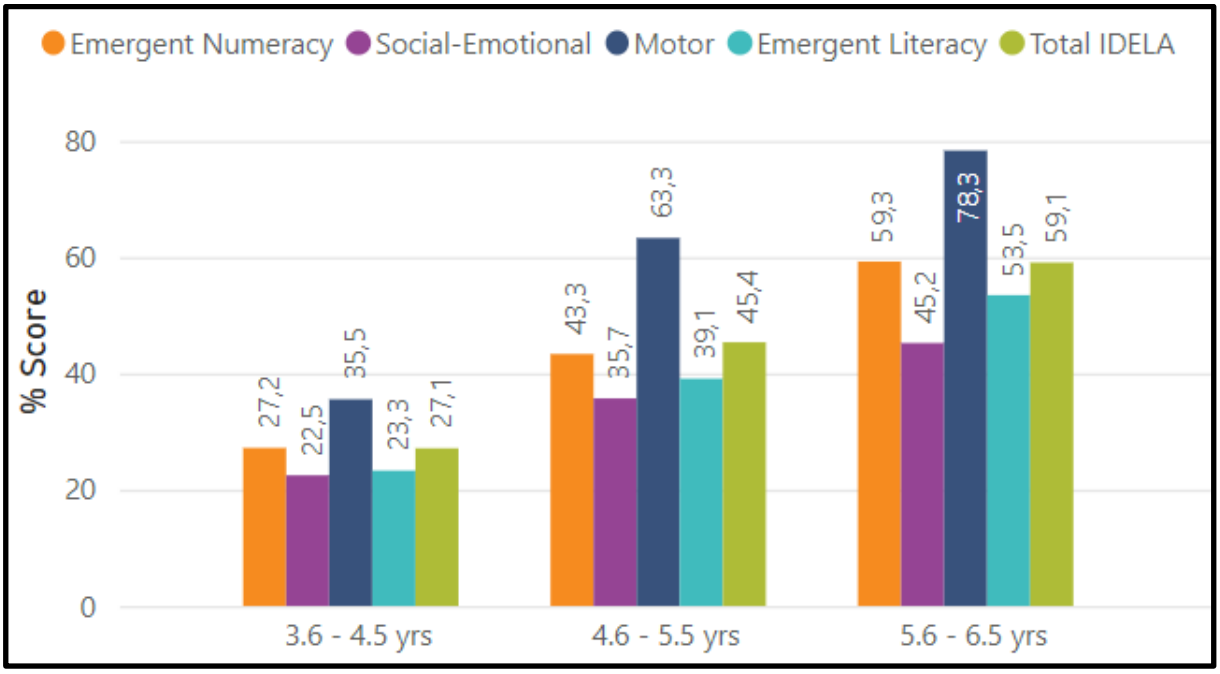
In the analysis of the results by gender, shown in graphic 5, it is evidenced that the girls continue obtaining a slightly higher percentage than the boys, by 2 percentage points in the total score, as well as in literacy skills with an additional 2.1 percentage points, equally superior in motor development by 2.6 percentage points and in social emotional skills by 2.7 percentage points higher than the boys; however, in the numeracy skills the boys surpassed the girls by 1.4 percentage points on the Final Assessment.

All of the skills increased in both genders, but what increased the most was an additional 7.5 percentage points in the motor development in the male children and 7.10 percentage points in the girls. The least increase was in emergent literacy for the boys with an increase of 5.5 percentage points and for the girls it was in emergent numeracy with 5.9 percentage points.

3.5 Total IDELA Score By Age And Mastery Of The Child

The results of the Final Assessment that are shown in graphic 6 indicate that the children in the age group of 5.6 to 6.5 years old have an average IDELA score of 59.1 points. The groups of younger children from 3.6 to 4.5 and 4.6 to 5.5 years old had achieved 27.2 and 45.4 points, respectively.

Graphic N°6: Average IDELA Score By Age And Mastery Of Child



The results show that, as the children grow, their scores increase; the motor and numeracy skills are the masteries with the highest scores in all age groups of children. Nevertheless, they are not yet fully prepared for a successful transition into first grade. The social emotional and emergent literacy domains should be strengthened, because the scores in both are the lowest.

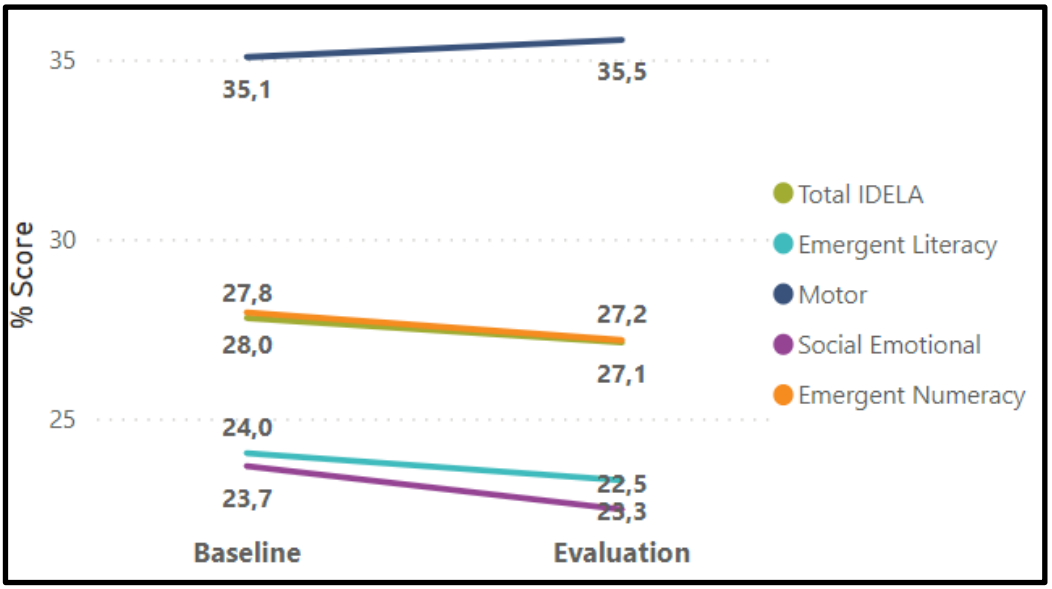
3.6 Changes In The IDELA Score By Age Group

In order to know if the children are attaining the appropriate progress year after year in the general development and in the academic preparation skills, it is necessary to compare the results obtained since the Baseline, which will be detailed next for each age group that was assessed.

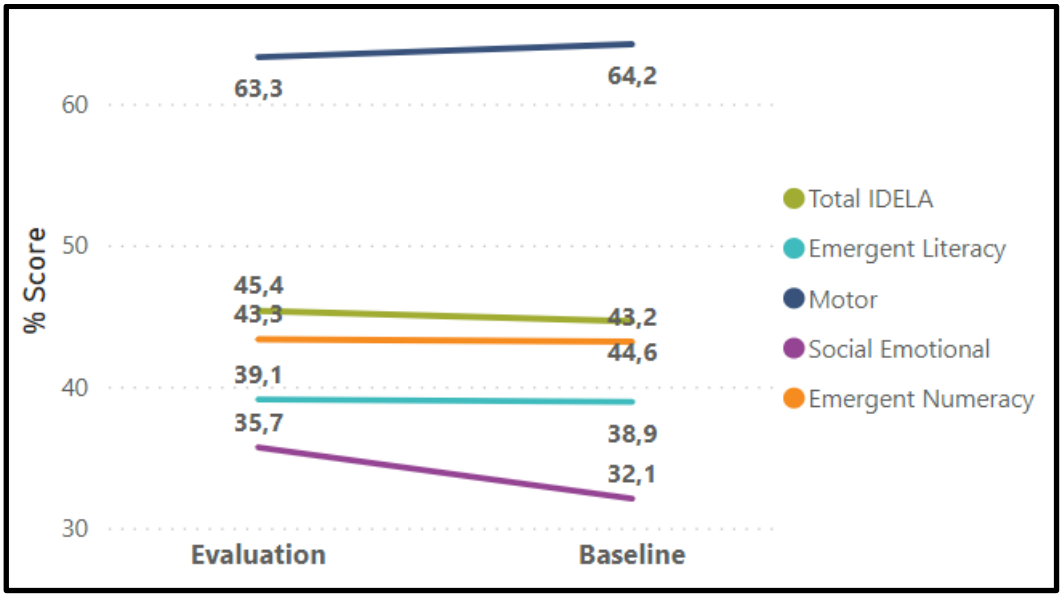
Graphic 7 shows the changes in the IDELA score according to each domain for children aged 3.6 to 4.5 years old. In comparison with the Baseline, the total score has decreased 0.68 points, finalizing at 27.12 points, the social emotional domain attained the lowest value,

finalizing at 27.42 point after a reduction of 1.21 points, and it is evidenced that the motor skills is the most developed - it was the only one that slightly increased with an additional 0.48 points since the Baseline, going from 35.07 to 35.55.

Graphic N°7: Variation Of IDELA Scores For Children Aged 3.6 To 4.5 Years Old



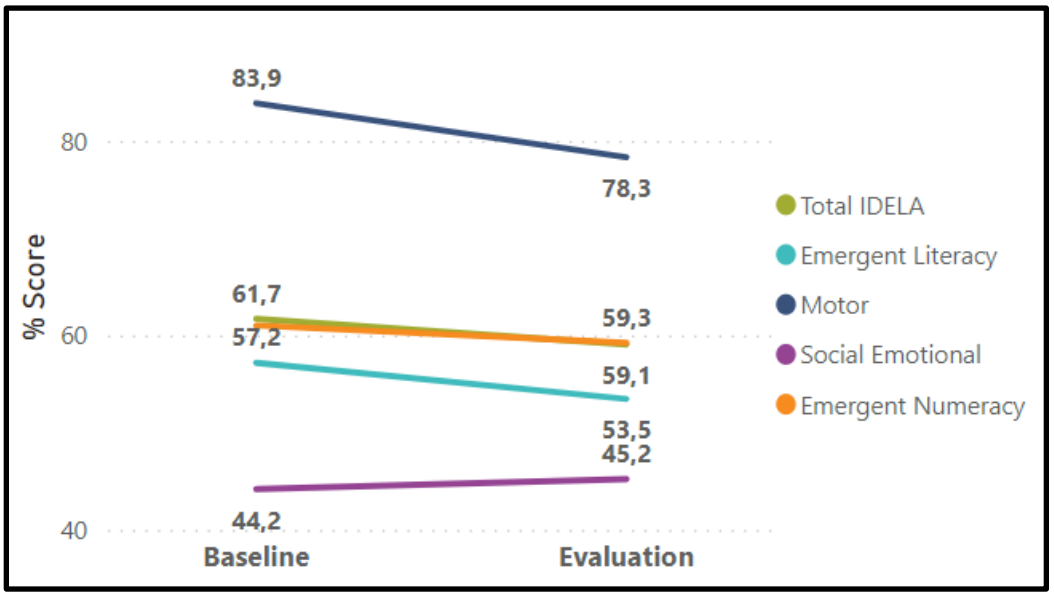
Graphic N°8: Variation Of IDELA Scores For Children Aged 4.6 To 5.5 Years Old



Graphic 8 shows the IDELA scores for children aged 4.6 to 5.5 years old. The IDELA score for this age range decreased 0.74 points since the Baseline, finalizing at 44,62 points; the emergent literacy and numeracy domains both decreased 0.17 points; the social emotional domain had the least points in this age range, with a decline of 3.61 points with regards to the

Baseline, finalizing at 32.07 points. Notwithstanding, as with the other group, there is an increase only in the motor skills with 0.9 points, finalizing at 64.2 points.

Graphic N°9: Variation Of IDELA Scores For Children Aged 5.6 To 6.5 Years Old By Mastery



Graphic 9 shows the IDELA score of children aged 5.6 to 6.5 years old. In the same way with the previous ages, the IDELA score of this age range decreases, in this case by 2.65 points since the Baseline, finalizing at 59.7 points. The motor skills in this age range is the domain that, compared with the others, declined the most of all, with a reduction of 5.53 points since the Baseline, finalizing at 78.3 points, followed by the emergent literacy domain with a reduction of 3.71 points, finalizing at 53.47 points. In the same way, emergent numeracy had a reduction of 1.78 points, finalizing at 59.25 points; however, unlike the other age ranges, there was a slight increase in the social emotional domain by 1.02 points, finalizing in the Assessment at 45.22 points.

IV. Results Of The CLA Inquiry

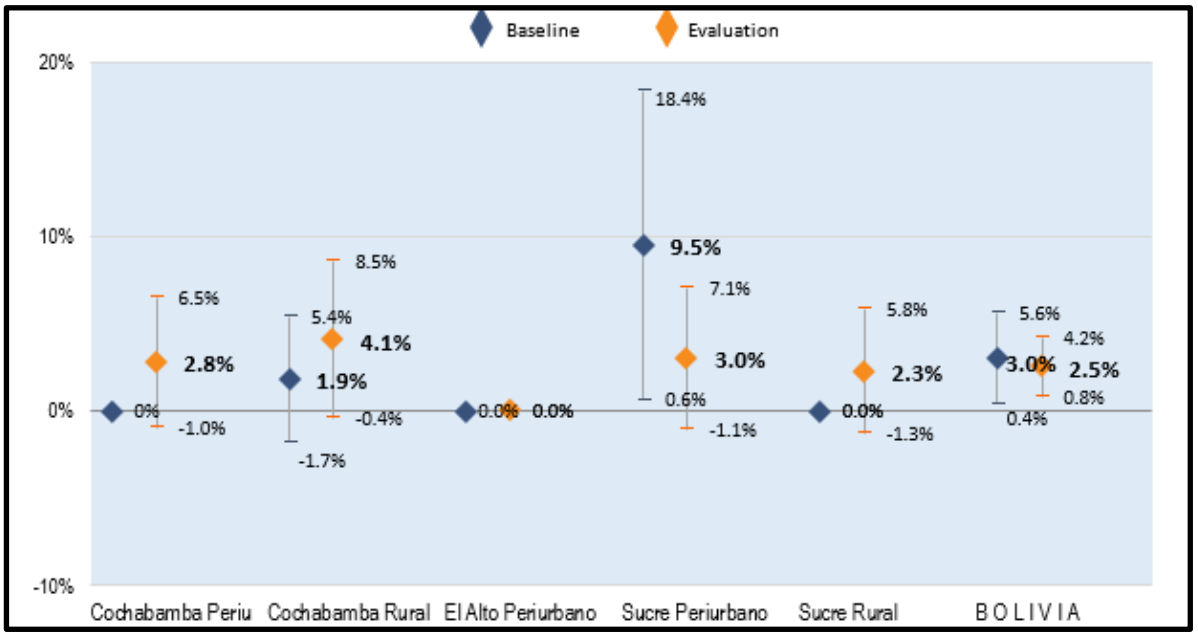
FH Bolivia also assessed the capacity of children aged 7 to 15 years old to meet the literacy and numeracy standards of third grade. In terms of Cross Analysis, the connection between preschool attendance and the capacity to meet third grade literacy and numeracy standards was evaluated, along with the connection between the caregiver's knowledge of the grade requirements and the capacity of the child to meet third grade standards, the influence of the reading environment of the home and the capacity of the child to meet third grade standards,

and finally the influence of the timely entry into first grade and the child's capacity to meet third grade standards.

4.1 Literacy And Numeracy Standards To Complete Third Grade

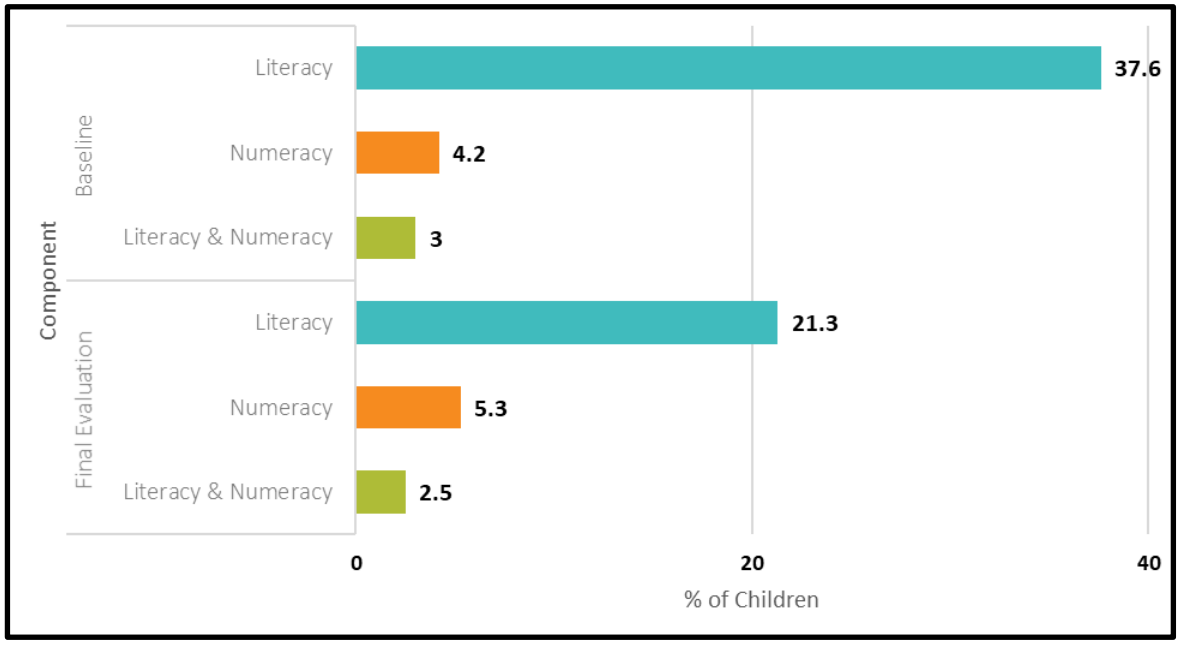
Graphic 10 shows that there is a reduction of 5 percentage points at a national level of the children that have attained the standards of literacy and numeracy required to complete third grade in comparison with the Baseline, i.e., only 2.5% of the children have achieved the literacy and numeracy standards at the end of third grade.

Graphic N°10: Proportion Of Children At The Recommended Age On A National Level To Complete Third Grade That Have Attained The Literacy And Numeracy Standards



Peri-urban Cochabamba obtained 2.8% after a reference value of 0%, Rural Cochabamba increased 2.2 percentage points since the Baseline, finalizing at 4.1%. Peri-urban El Alto maintains 0% since the Baseline; Peri-urban Sucre declined 6.5 percentage points, finalizing at 3% and Rural Sucre increased 2.3 percentage points after 0% in the Baseline. Nonetheless, the results are not statistically significant as the intervals of confidence of the Baseline and the Final Assessment overlap.

Graphic N°11: Variation In The Proportion Of Children At The Recommended Age On A National Level For Completing Grade Three That Have Attained The Literacy And Numeracy Standards For Third Grade

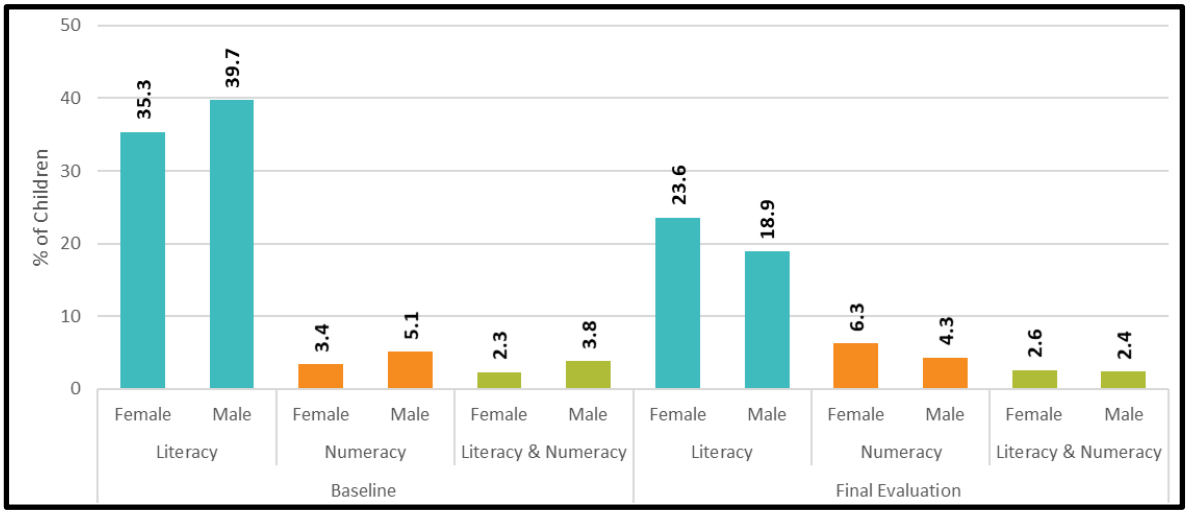


Graphic 11 shows us that, on a national level, only 2.5% are capable of meeting both the literacy and numeracy standards according to national criteria. In literacy we see that, in the Baseline, 37.6% of the children that could complete the standards of 3rd grade; however, in the Final Assessment only 21.3% could, indicating a reduction of 16.3%; on the contrary, in numeracy, the Baseline reached 4.3% and, in the Assessment, it augmented to 5.3%, showing an increase in 1.1% of the children that completed the numeracy standards of 3rd grade.

4.2 Literacy And Numeracy Standards To Complete Third Grade, By Gender

Graphic 12 observes the performance of the boys was slightly higher than that of the girls, in the Baseline they reached 4.4 percentage more in literacy, 1.7 more in numeracy and 1.5 percentage points higher in the literacy and numeracy standard. Nevertheless, in the Final Assessment, the girls achieved a higher improvement with 4.7 percentage points more than the boys in literacy, 2 percentage points more in numeracy and slightly superior with an additional 0.2 percentage points in the literacy and numeracy standard.

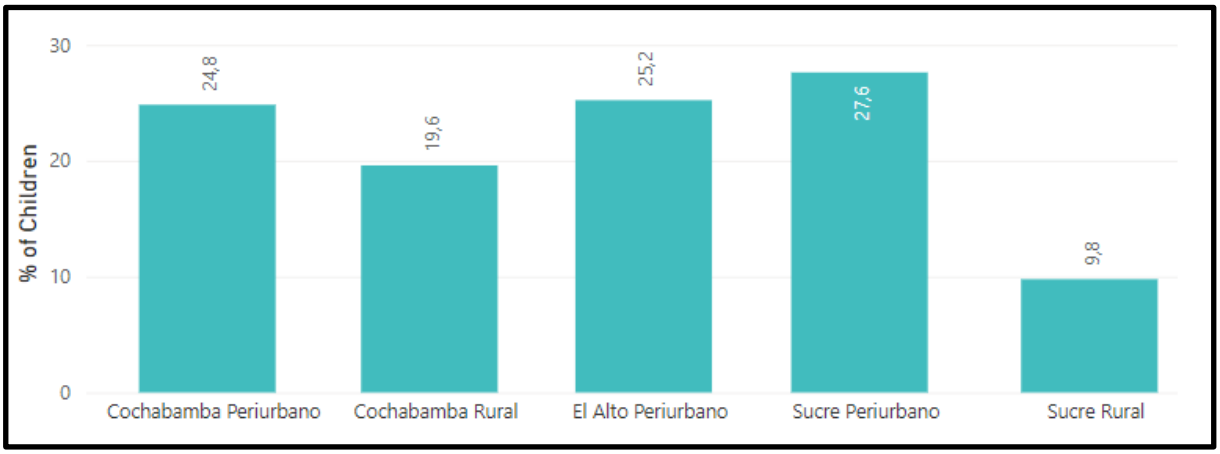
Graphic N°12: Proportion Of Children At The Recommended Age On A National Level To Complete Third Grade That Have Attained The Literacy And Numeracy Standards For Third Grade, By Gender



Analyzing the individual results in regard to the Baseline, in the graphic we see that the girls declined 11.7 percentage points in literacy and the boys 20.8; in numeracy, the girls increased 2.09 points and the boys decreased 0.8 percentage points; in the standard of literacy and numeracy, the girls increased 0.3 percentage points, whereas the boys declined 1.4 percentage points.

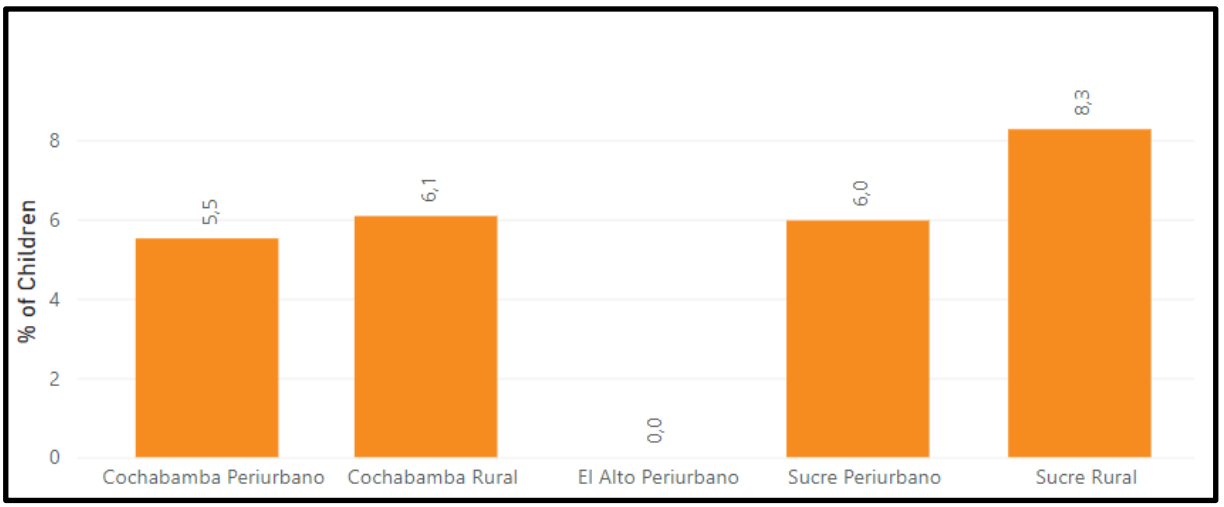
4.3 Literacy And Numeracy Standards For Completing Third Grade, By Area Program

Graphic N°13: Proportion Of Children At The Recommended Age On A National Level That Have Attained The Literacy Standard To Complete Third Grade, By Area Program



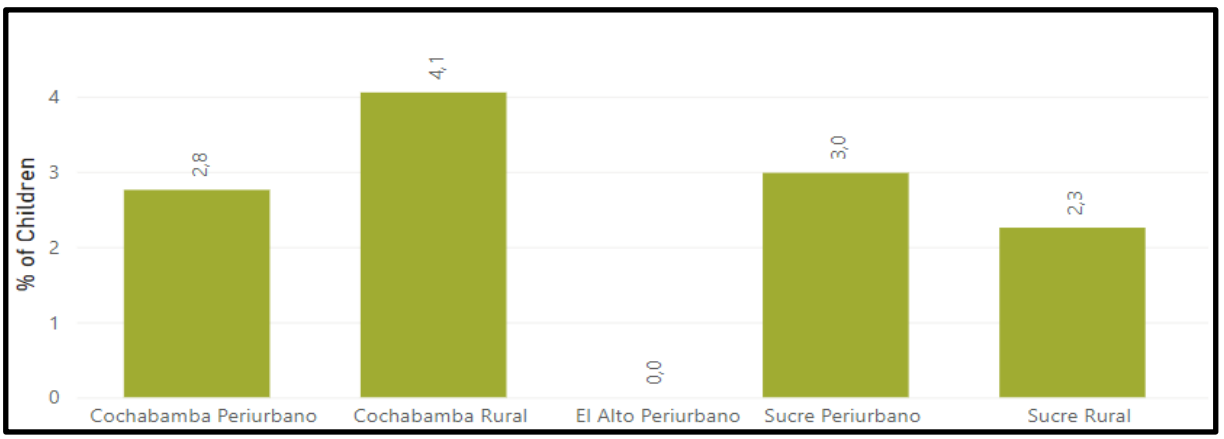
In graphic 13 we observe that the peri-urban areas obtained the highest percentages of children that meet the literacy standard; Peri-urban Sucre in first place at 27.6%, followed by Peri-urban El Alto at 25.2% and in third place Peri-urban Cochabamba at 24.8%. The lowest percentage of children was in Rural Sucre at 9.8%, followed by Rural Cochabamba at 19.6%.

Graphic N°14: Proportion Of Children At The Recommended Age On A National Level That Have Attained The Numeracy Standard To Complete Third Grade, By Area Program



In graphic 14 we see that the rural areas were the ones that relatively obtained the highest percentages of children that meet the numeracy standard to complete third grade. Rural Sucre stands out in first place at 8.3%, followed by Rural Cochabamba at 6.1% and in third place Peri-urban Cochabamba at 5.5 percentage points. The lowest percentage of children was seen in Peri-urban El Alto at 0%.

Graphic N°15: Proportion Of Children At The Recommended Age On A National Level That Have Met The Literacy And Numeracy Standards To Complete Third Grade, By Area Program

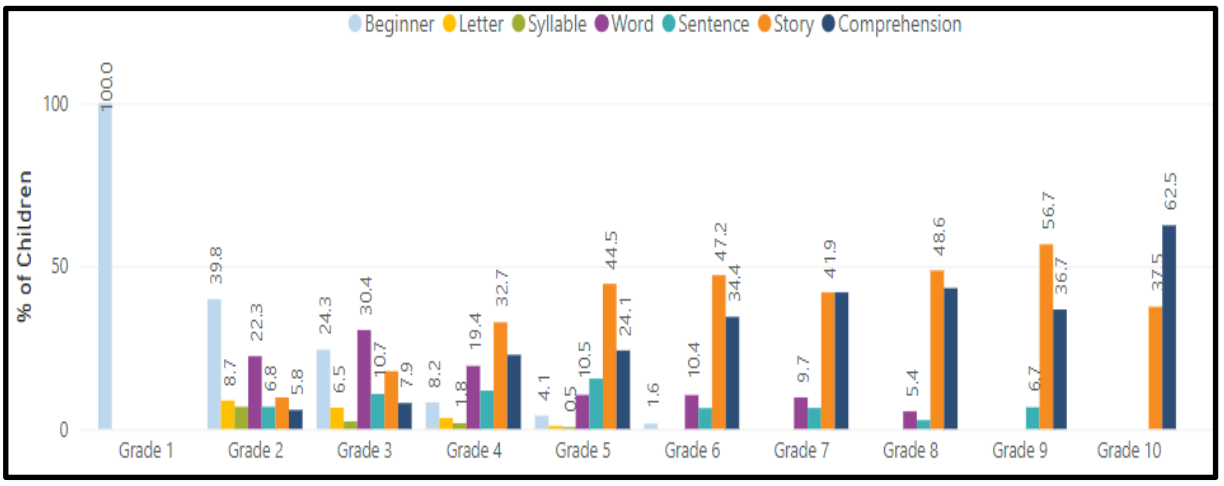


In graphic 15 we see that Rural Cochabamba holds the first place in the percentage of children that meet the standards of literacy and numeracy, followed by Peri-urban Sucre at 3%, Peri-urban Cochabamba at 2.8% and Rural Sucre at 2.3%, and Peri-urban El Alto has the most critical percentage at 0%. The results prove that the majority of the nine-year-old children do not meet the literacy and numeracy standards required for 3rd grade.

4.5 Distribution Of The Literacy Skills Of The Children In Grades 1-12

In graphic 16 we see the literacy skills for first grade students were all at the beginner levels and the literacy skills improve as the grades advance. However, by the third grade, nearly one fourth of students remain at the beginner level and more than half have not achieved the Word Level. By grade four, over half the students are reading at the story level or above. With regards to the comprehension levels, there are increments as the grades advance, which shows progress in the cognitive development of the children; however, it is important to note that in 3rd grade only 7.9% reach the comprehension level, 17.8% reach the story level, and, beyond that, we can see that, until grade 10, only 62.5% of the children reach of the comprehension level.

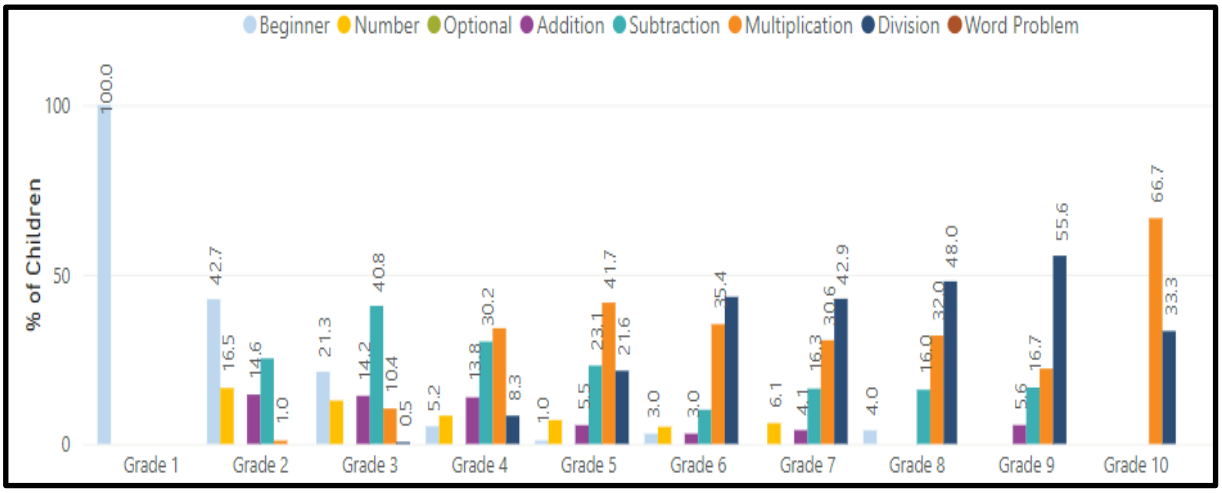
Graphic N°16: Distribution Of Literacy Skills Of Children In Grades 1-12



4.6 Distribution Of Numeracy Skills Of Children In Grades 1-12

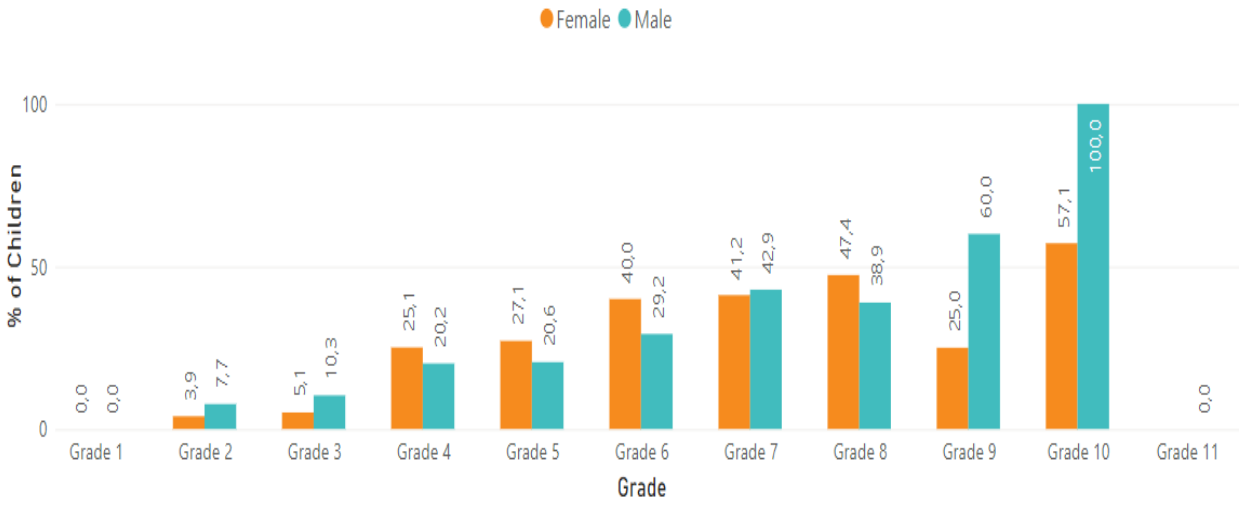
In graphic 17 we can see that in the 2nd grade, 42.7% of the children that were interviewed reached the beginner level and in 3rd grade the majority at 40.8% reached the subtraction level. Nonetheless, no percentage associated with problem solving was observed in any grade and highest level of division was seen until grade 9 at 55.6%.

Graphic N°17: Distribution Of Numeracy Skills Of Children In Grades 1-12



4.7 Proportion Of Children That Meet With The Literacy Standards, By Grades And Gender

Graphic N°18: Proportion Of Children Of All Grades That Comply With The Literacy Standards, Tabulated By Grades And Disaggregated By Gender



In graphic 18 we see that the girls surpassed the boys in literacy in grades 4, 5, 6 and 8 with a superior average of 8 percentage points, whereas the boys in grades 2, 3, 7, 9 and 10 surpassed the girls with an average of 17 percentage points.

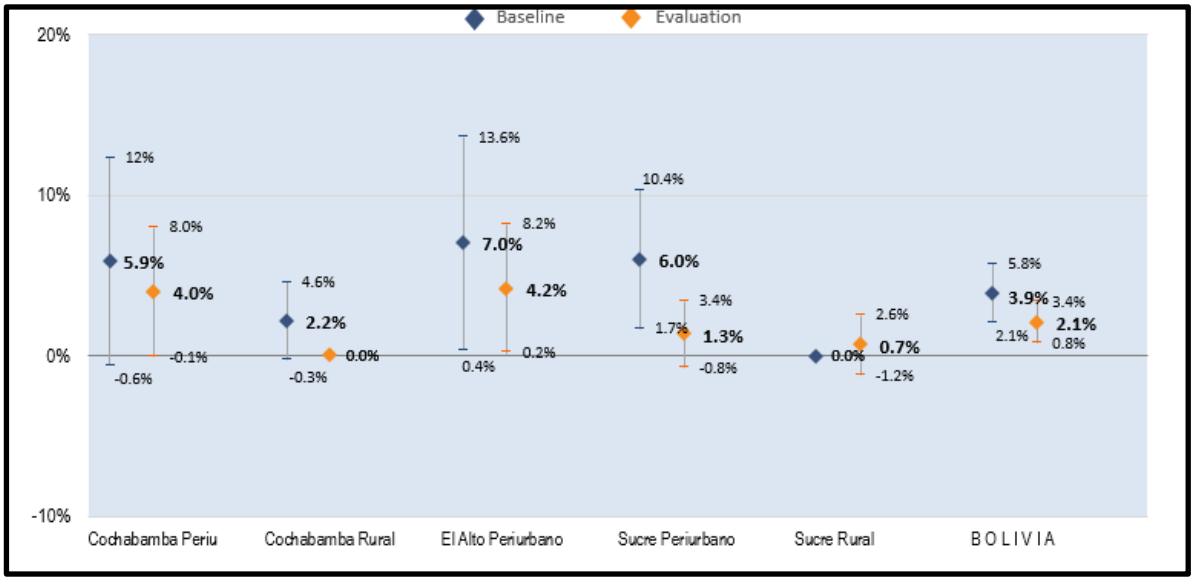
It is important to note that the proportion of male children that meet the literacy standards declines in grade 8 and attains 100% in grade 10, whereas the girls decrease in grade 9 and attain the highest percentage in grade 10 with 57.1%.

V. Results Of The Inquiry Of The Caregivers

5.1 Percentage Of Children Aged 0-2 Years Old That Have Three Or More Children's Books

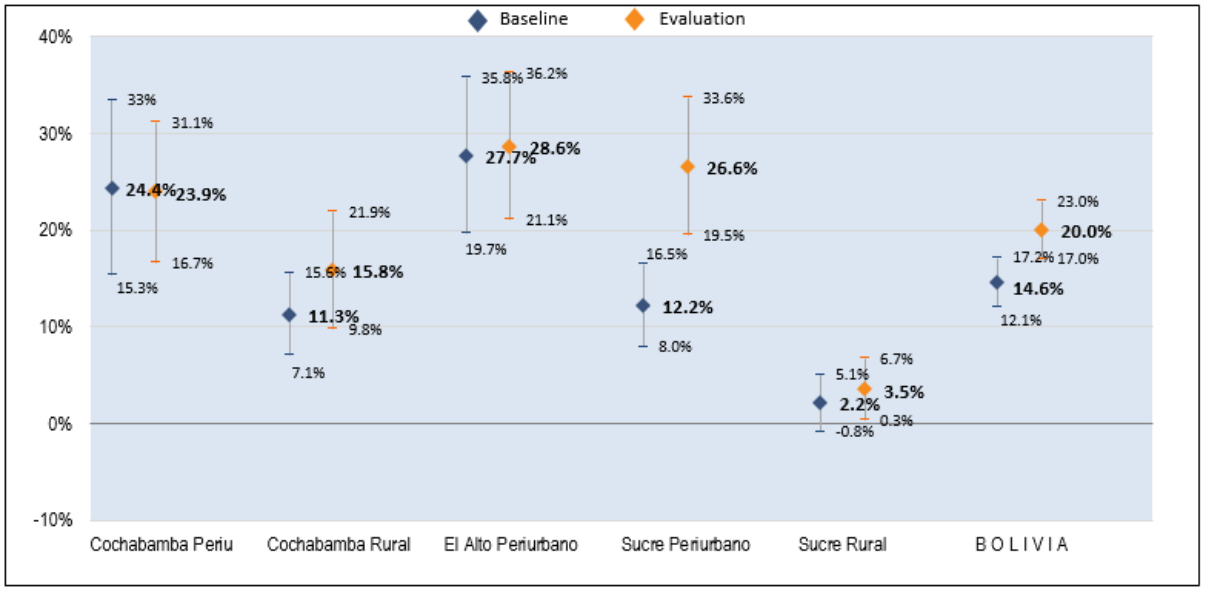
The following graphic shows that, on a national level, only 2.1% of homes with children aged 0-2 years old have 3 or more books; the results obtained represent a reduction of 1.9 percentage points in regards to the Baseline. Among all the Area Programs being studied, Peri-urban El Alto shows the highest percentage attaining 4.2% after a reduction of 2.8 percentage points; after a reduction of 2.2 percentage points, Peri-urban Cochabamba finalized at 4%. Peri-urban Sucre registered a reduction of 4.7 percentage points, finalizing at 1.3%; Rural Sucre, after obtaining 0% in the Baseline, finalized with 0.7% in the Final Assessment and Rural Cochabamba finalized with 0%; however, the changes attained in the indicator are not statistically significant.

Graphic N°19: Percentage Of Children Aged 0-2 Years Old That Have Three Or More Children's Books



5.2 Percentage Of Children Aged 3-6 Years Old That Have Three Or More Children's Books

Graphic N°20: Percentage Of Children Aged 3-6 Years Old That Have Three Or More Children's Books

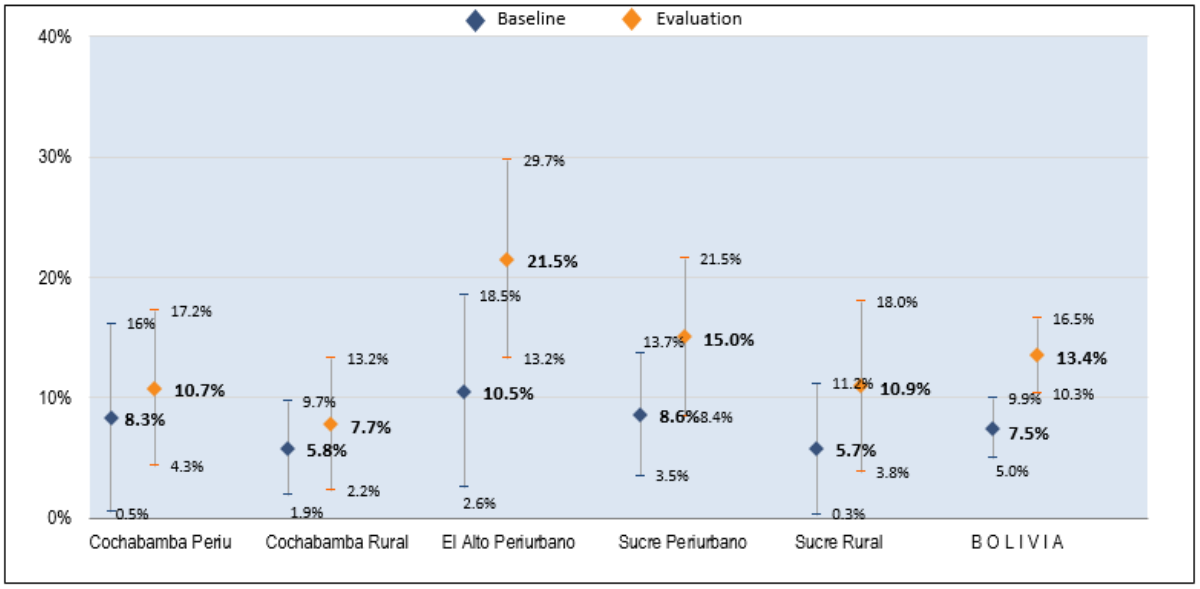


The percentage of children aged 3-6 years old that have three or more books went up 5.4 percentage points from 14.6% in the Baseline to 20% in the Final Assessment; the increment occurred in 4 Area Programs. The highest increment was 14.4 percentage points in Peri-urban Sucre, which finalized at 26.5%, followed by Rural Cochabamba that increased 4.5 points, finalizing at 15.8%. Rural Sucre increased 1.3 percentage points and El Alto 0.9 points, finalizing at 28.6%. Nevertheless, in Peri-urban Cochabamba there was a decrease of 0.5 percentage points. The only statistically significant change achieved was in Peri-urban Sucre. This is due to the fact that, in the strategy for training caregivers, books were distributed to each caregiver.

Comparing the availability of books in both age ranges, we conclude that the children aged 3-6 years old surpass the children aged 0-2 with an additional 17.9 percentage points in the percentage of possessing children's books.

5.3 Learning Activities In The Home With Children Aged 0-2 Years Old

Graphic N°21: Percentage Of Caregivers Of Children Aged 0-2 Years Old That Have Engaged In Four Or More Activities To Promote Learning Over The Last Three Days



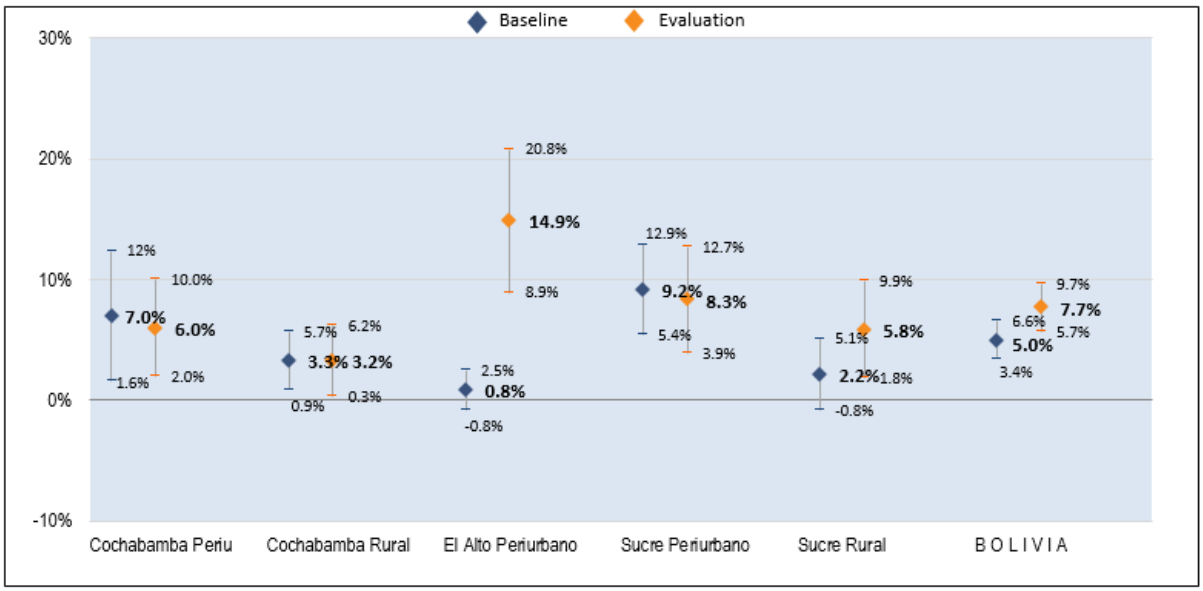
In graphic 22 it is proven that the percentage of caregivers of children aged 0-2 that have engaged in 4 or more activities that promote learning has incremented 6 percentage points on a national level, going from 7.5% to 13.4%; in all of the Area Programs there was an increment in regards to the Baseline. The greatest increment was 10.9 percentage points in Peri-urban El Alto, which finalized at 21.5%, followed by Peri-urban Sucre, which finalized at 15% after increasing 6.4% percentage points; Rural Sucre increased 5.2 percentage points, finalizing at 10.9%, a similar value of 10.7% was attained by Peri-urban Sucre after an increase of 2.4 percentage points, and Rural Cochabamba concentrated the lowest percentage of 7.7% after a reduction of 1.9 percentage points.

It is important to indicate that the changes obtained from the Baseline to the Final Assessment were not statistically significant in any Area Program.

5.4 Learning Activities In The Home With Children Aged 3-6 Years Old

The percentage of caregivers of children aged 3-6 years old that have engaged in 4 or more activities to promote learning has slightly incremented on a national level with 2.7 percentage points, finalizing at 7.7%. The greatest increase and highest percentage were obtained in Peri-urban El Alto, going from 0.8% to 14%; this change was statistically significant.

Graphic N°22: Percentage Of Caregivers Of Children Aged 3-6 Years Old That Have Engaged In Four Or More Activities To Promote Learning Over The Last Three Days

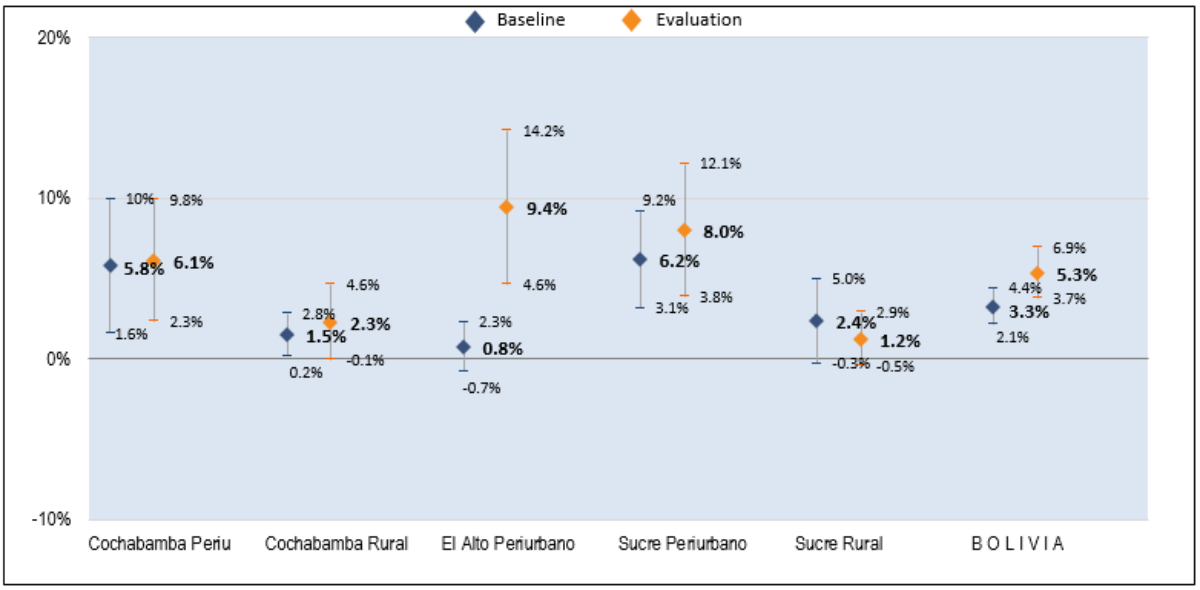


The Area Programs in which the indicator of learning activities with children aged 3-6 years old decreased were Peri-urban Cochabamba with a reduction of 1 percentage point, Rural Cochabamba with the reduction of 0.1 percentage points; after a reduction of 0.9 percentage points, Peri-urban Sucre finalized v 8.3% whereas Rural Sucre finalized at 5.8%, after a decline of 3.7 percentage points; nonetheless, these changes were not statistically significant.

5.5 Learning Activities In The Home With Children In Grades 1-3

The percentage of caregivers of children in grades 1-3 that have engaged in 4 or more activities to promote learning has increased 2 percentage points on a national level, finalizing at 5.3%. Peri-urban Cochabamba increased 0.3 percentage points, finalizing at 6.1%; Rural Cochabamba increased 0.8 percentage points, finalizing at 2.3%; Peri-urban El Alto is the Area Program with the highest engagement in learning activities, finalizing at 9.4% after an increase of 8.7 percentage points. Peri-urban Sucre, after an increase of 1.8 percentage points, finalized at 8%, and Rural Sucre, after a reduction of 1.2 percentage points, finalized at 1.2%, situating itself as the Area Program with the least percentage; nevertheless, the results obtained for the caregiver commitment indicator of 7–15-year-olds was only significant for Peri-urban El Alto.

Graphic N°23: Percentage Of Caregivers (Of Children In Grades 1—3) That Have Engaged In Four Or More Activities To Promote Learning Over The Last Three Days

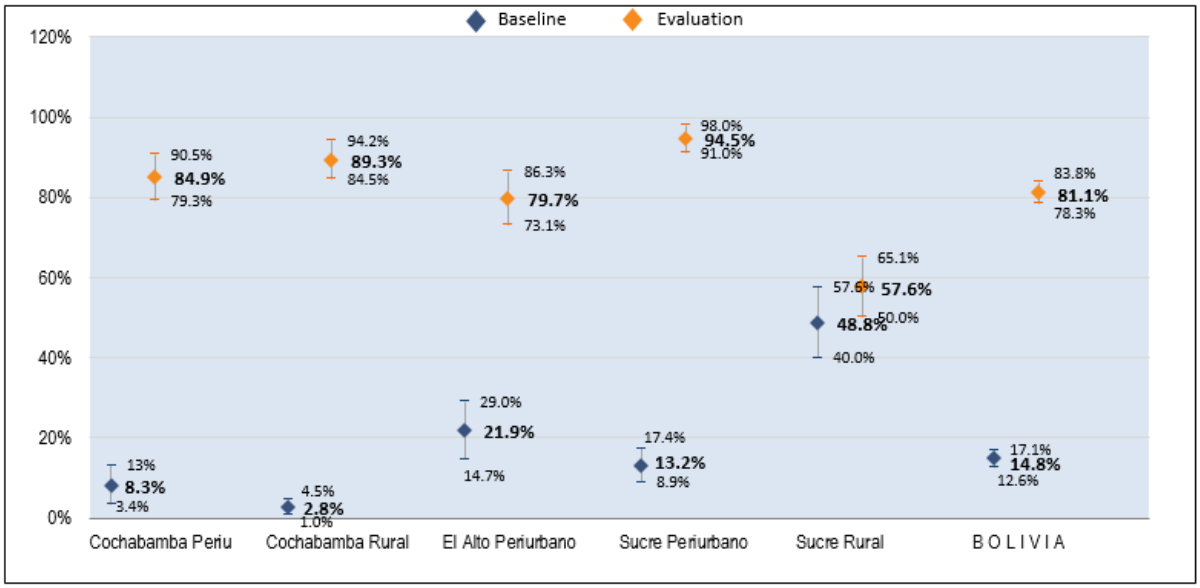


Graphics 21, 22 and 23 show the engagement of the caregivers in the learning activities of the children in the age groups of 0-2, 3-6 and 7-15 years old, respectively, and indicate that, as the children grow older, there is less interaction with them. The caregivers that interact with the children of 0-2 years old is 13.4%, in comparison with their interaction with children aged 3-6 years old at 7.7% and with children aged 7-15 years old at only 5.3%.

5.6 Prior Preschool Enrollment of Children 7-15 Years

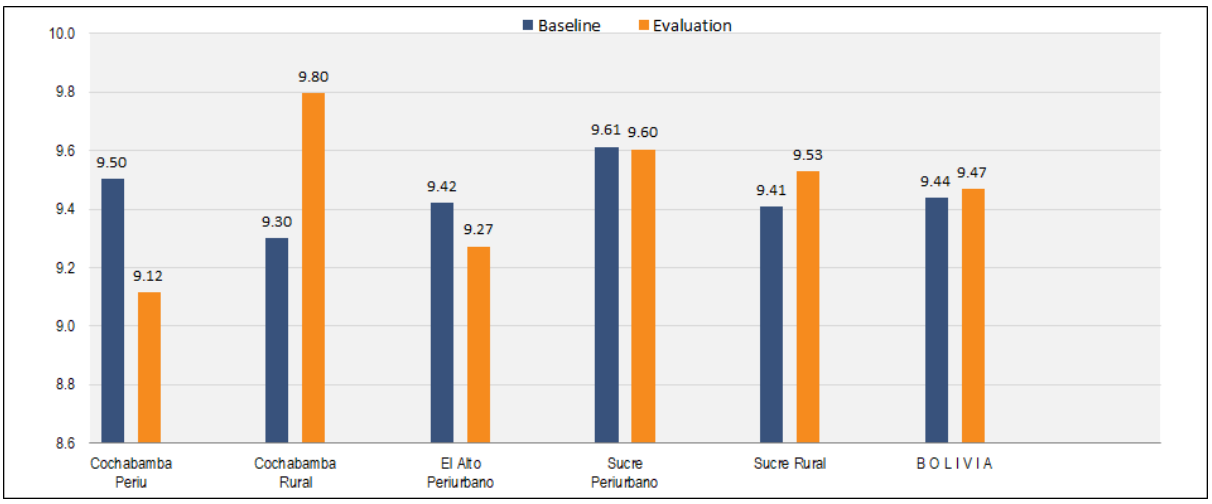
The results of the inquiry prove a significant increment of 66.2 percentage points in the Pre-school Enrollment Indicator of 7-15 years old on a national level, finalizing at 81.1%. The increments were present in all Area Programs; however, they were statistically significant in four of them. Peri-urban Cochabamba increased 76.6 percentage points, finalizing at 84.9%; Rural Cochabamba increased 86.6 percentage points, finalizing at 89.3%. Peri-urban El Alto increased 57.8 percentage points, finalizing at 79.7%; Peri-urban Sucre registered the highest percentage, obtaining 94.5% after increasing 81.3 percentage points and Rural Sucre increased 8.8 percentage points, finalizing at 57.6%, even though in this Area Program it is not statistically significant.

Graphic N°24: Preschool Inscription 7-15 Years Old



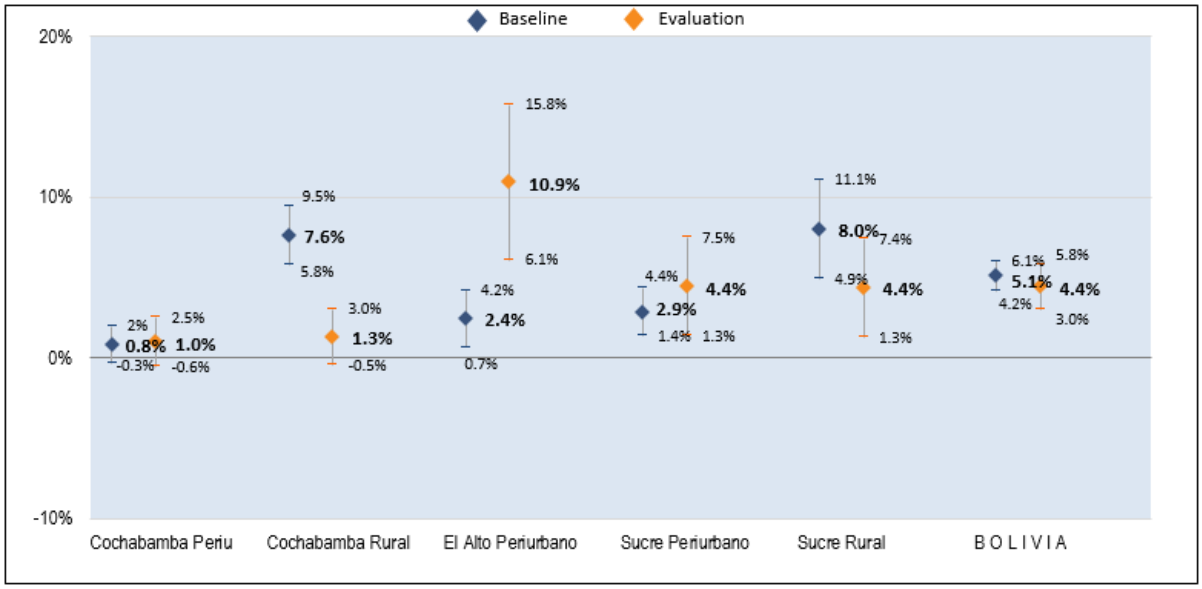
5.7 School Attendance

Graphic N°25: Average Days Of School Attendance Of Children 7-15 Years Old Over The Last 10 Days



Graphic 25 shows us that the indicator of average school attendance on a national level slightly increased 0.3 % (0.03 days) with regards to the Baseline, finalizing on a national level at an adequate percentage of 9.47 days. Rural Cochabamba, with an increase of 5.3% (0.50 days), and Rural Sucre, with increment of 1.3% (0.12 days), contributed to a national increase, finalizing at 9.8 and 9.53 days of attendance on average. On the other hand, three Area Programs slightly reduced the school attendance average: Peri-urban Cochabamba, with a reduction of 0.39 days, finalized at 9.12; Peri-urban El Alto, with a reduction of 0.15 days, finalized at 9.27 and Peri-urban Sucre, with a reduction of 0.01 days, finalized at 9.60 days.

Graphic N°26: Percentage Of Children 7 To 15 Years Old That Do Not Attend School In The Present Year

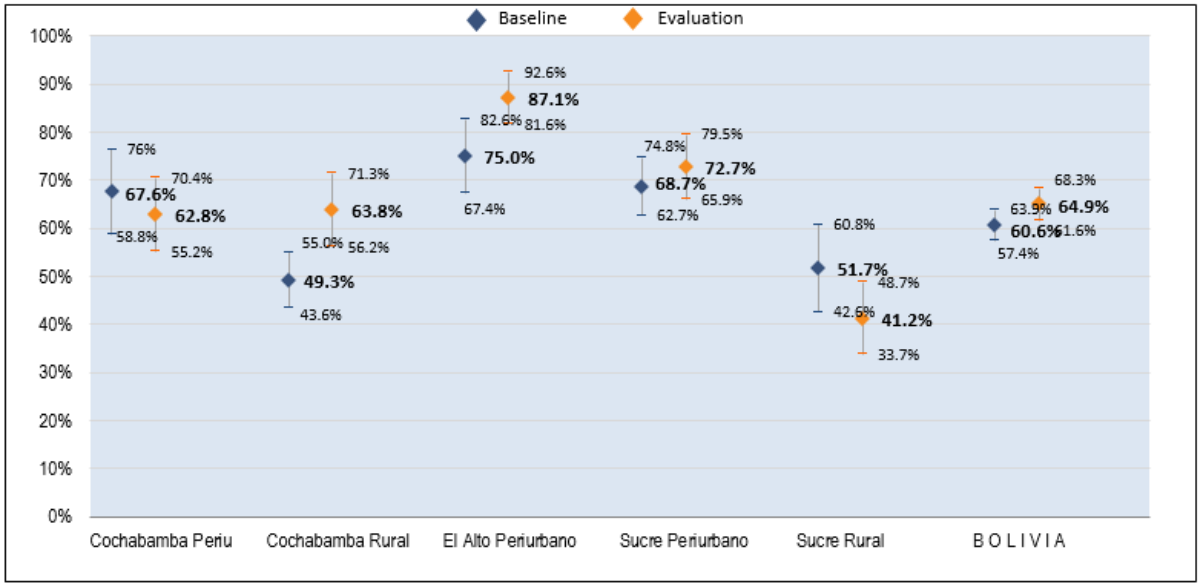


The percentage of children aged 7-15 years old that do not attend school in the present year decreased 0.7 percentage points on a national level, situating itself at 4.4%; however, this change on a national level was not statistically significant. The lowest percentage in the Area Programs was in Rural Cochabamba with 1%, after an insignificant increase of 0.1 percentage points. There were significant variations in Rural Cochabamba with a reduction of 6.4 percentage points, finalizing at 1.3% and in Peri-urban El Alto with a significant increase of 8.5 percentage points, finalizing at 10.9%. Peri-urban Sucre increased with 1.5 and Rural Sucre decreased with 3.7 percentage points, finalizing in both cases at 4.4%, but these were not statistically significant. The table below shows the frequency of reasons given by caregivers for the child not attending school at the time of the evaluation.

Area	Needed at Home to Care for Family Member	Needed at Home to Work	Child Not Willing to Attend	School Closed or Teacher Absent	Child Illness	Other	Total
Cochabamba Periurbano	5	4	3	7	11	38	68
Cochabamba Rural	4	3	2	3	7	6	25
El Alto Periurbano	1	3	2	1	11	28	46
Sucre Periurbano	0	1	1	1	6	16	25
Sucre Rural	12	12	5	1	7	4	41
Bolivia	22	23	13	13	42	92	205

5.8 Designated Study Space

Graphic N°27: Percentage Of Caregivers (Of Children In Grades 1-3) That Have Established A Specific Study Space For Their Child To Study In (Or Near) Their Home

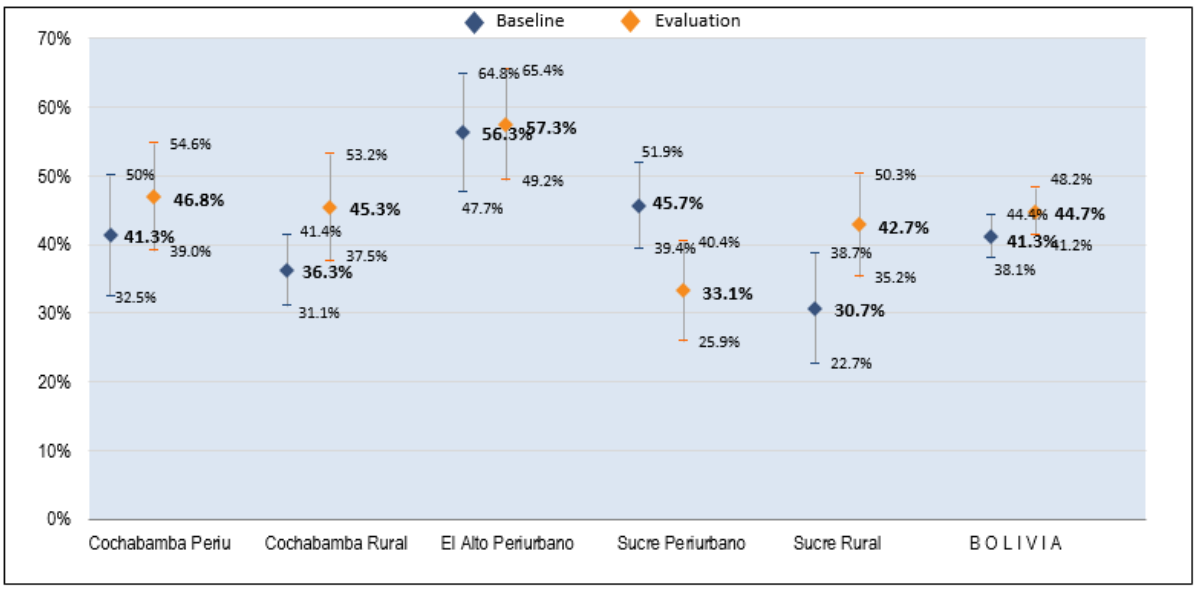


Graphic 27 proves that, in Bolivia, 64.9% of the caregivers of children in grades 1-3 stated that they had established a designated space for their child to study in; this represents an insignificant increase of 4.3 percentage points in regards to the Baseline. In Peri-urban Cochabamba there was an insignificant reduction of 4.8 percentage points, finalizing at 62.8%; Rural Cochabamba increased 14.4 percentage points, finalizing at 63.8%. It is important to note that this is the only statistically significant change for the indicator. Other changes that were insignificant were: a 12.1 percentage points increase in Peri-urban El Alto, finalizing with the highest percentage at 87.1%, an increase of 4 percentage points in Peri-urban Sucre, finalizing at 72.7% and a reduction of 10.5 percentage points in Rural Sucre, finalizing at 41.2%.

5.9 The Caregiver Meeting With The Teacher Of The Child

Graphic 28 shows that the percentage of caregivers of children in grades 1-3 that have met with the teacher has incremented 3.5 percentage points since the Baseline, finalizing on a national level at 44.7%; nonetheless, the results on a national level and on the Area Program level were not statistically significant.

Graphic N°28: Percentage Of Caregivers (Of Children In Grades 1-3) That Have Met With The Teacher Over The Last Two Months At Least Once To Talk About The Progress Of Their Children

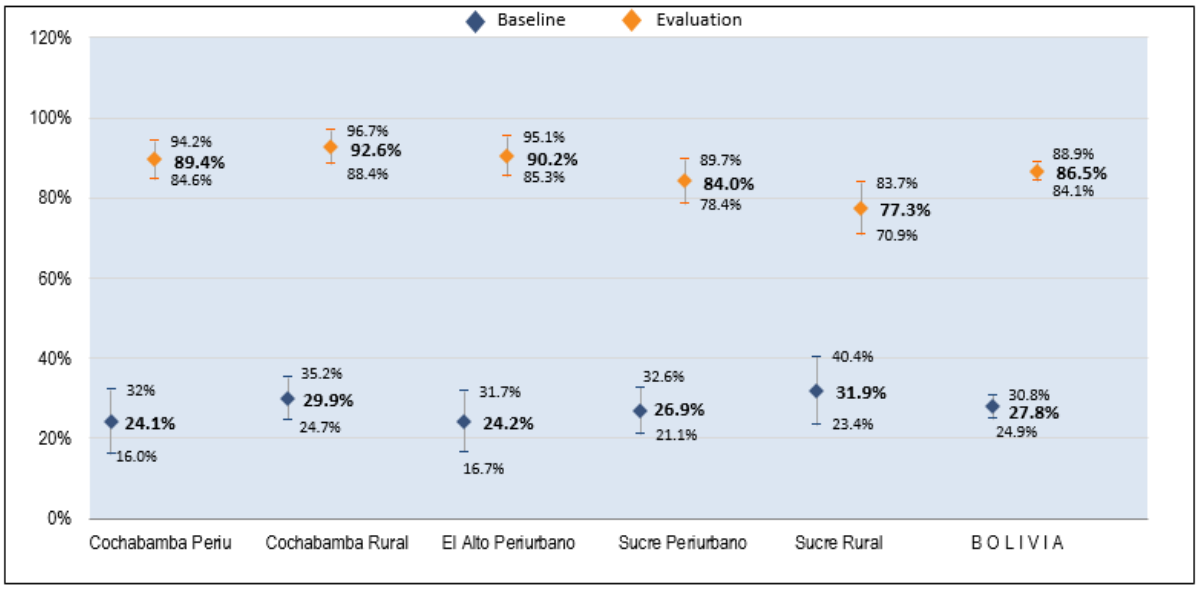


Only Peri-urban Sucre reduced its percentage since the Baseline, with a reduction of 12.6 percentage points, finalizing at 33.1%; Peri-urban Cochabamba increased 5.5 percentage points, finalizing at 46.8%. Rural Cochabamba increased 9.1 percentage points, finalizing at 45.3%; Peri-urban El Alto also finalized with the highest percentage of 57.3% after a slight increase of 1.1 percentage points. Peri-urban Sucre finalized with the lowest percentage at 33.1%, after a reduction of 12.6 percentage points, while Rural Sucre evidenced an increase of 12 percentage points, finalizing at 42.7%.

5.10 Reviewing The Child's Homework

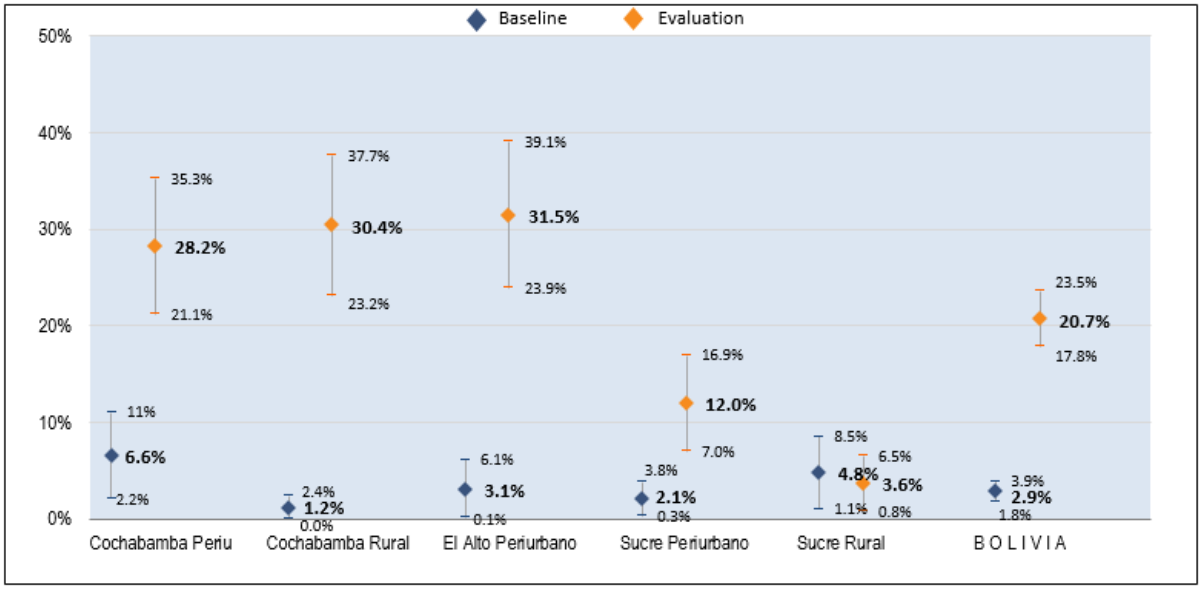
Graphic 29 shows that the percentage of caregivers of grades 1-3 that have reviewed their children's homework has increased 58.7 percentage points, finalizing on a national level at 86.5%. Peri-urban Cochabamba has the highest percentage of caregivers that review their children's homework, attaining 92.6%, after an increase of 62.6 percentage points; Peri-urban El Alto obtained an increment of 66 percentage points, finalizing at 90.2%. Peri-urban Sucre increased 57.2 percentage points, finalizing at 84%, and in Rural Sucre there was an increment of 45.4 percentage points, situating itself at 77.3% and representing the least percentage at the Area Program level. It is important to highlight that all the changes obtained in the indicator since the Baseline were statistically significant.

Graphic N°29: Percentage Of Caregivers (Of Children In Grades 1-3) That Had Reviewed Their Children's Homework At Least Twice Over The Last Seven Days



5.11 The Knowledge Of The Caregiver About The Reference Points Of Learning

Graphic N°30: Percentage Of Caregivers (Of Children In Grades 1-3) That Can List Three Things That The Child Must Learn By The End Of The Year To Graduate On Time

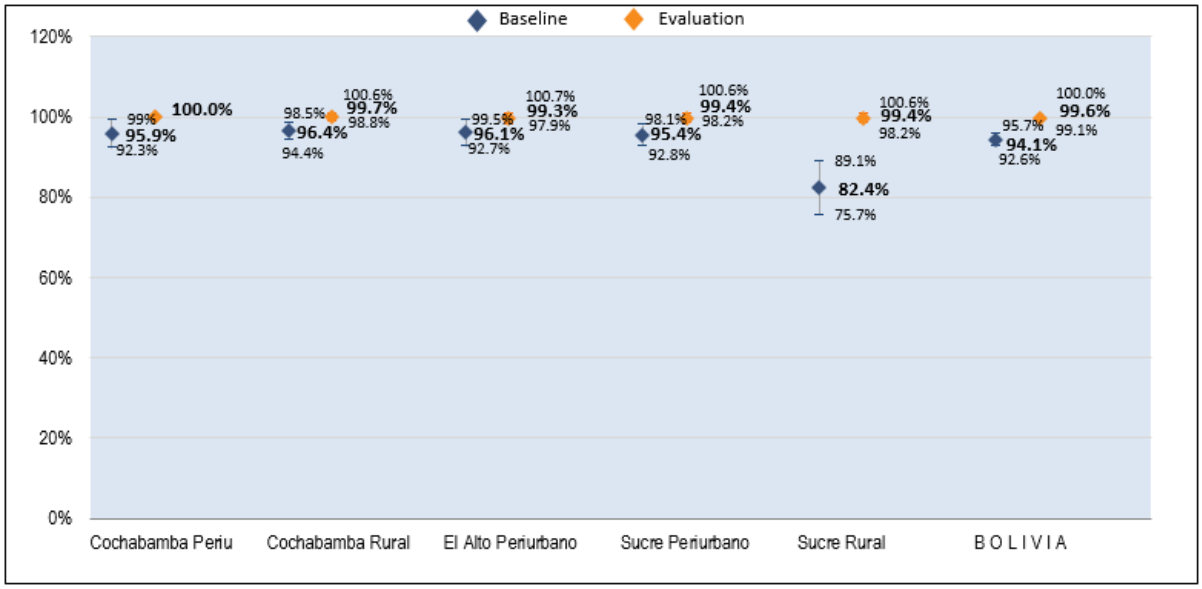


Graphic 30 shows the percentage of caregivers of children in grades 1-3 that can list 3 requirements that the child must learn by the end of the year in order to graduate increased 17.8 percentage points on a national level, situating itself at 20.7%. Peri-urban Cochabamba attained an increase of 21.6 percentage points, finalizing at 28.2%; Rural Cochabamba finalized at 30.4%, after an increase of 29.2 percentage points. Peri-urban El Alto obtained an increment

of 28.3 percentage points, finalizing at 31.5%; Peri-urban Sucre incremented 57.2 percentage points, finalizing at 84% and Rural Sucre attained an increase of 9.9 percentage points, situating itself in the end at 12%. All of these increments were statistically significant, with the exception of the reduction of 1.2 percentage points attained in Rural Sucre, which finalized at 2.6%, representing the least percentage.

5.12 Timely School Enrollment

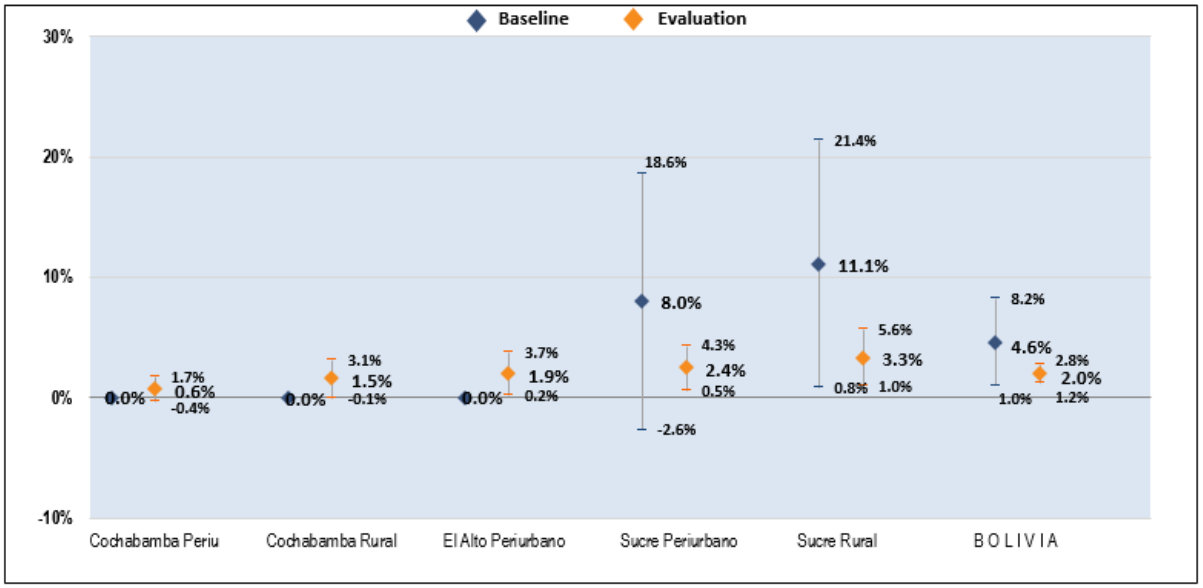
Graphic N°30: Timely School Enrollment 7-15 Years Old



The indicator of timely school enrollment increased 5.4 percentage points on a national level, finalizing at 99.6%. Peri-urban Cochabamba attained an increase of 4.1 percentage points, finalizing at 100%; Rural Cochabamba and Peri-urban El Alto increased 3.2 percentage points, finalizing at 99.7 and 99.3%, respectively. Peri-urban Sucre incremented 4 percentage points, finalizing at 99.4% and Rural Sucre attained the highest increase since Baseline with 17 percentage points, situating itself in the end at 99.4%. All of the changes obtained in the indicator of timely school enrollment were statistically significant.

5.13 Participation In The Lessons On Child Stimulation (Module 1)

Graphic N°31: Percentage Of Caregivers Of Children Aged 0-15 Years Old That Have Participated In 10 Or More Lessons That Offer Skills And Practices For Early Child Stimulation With A Child 0-2 Years Old

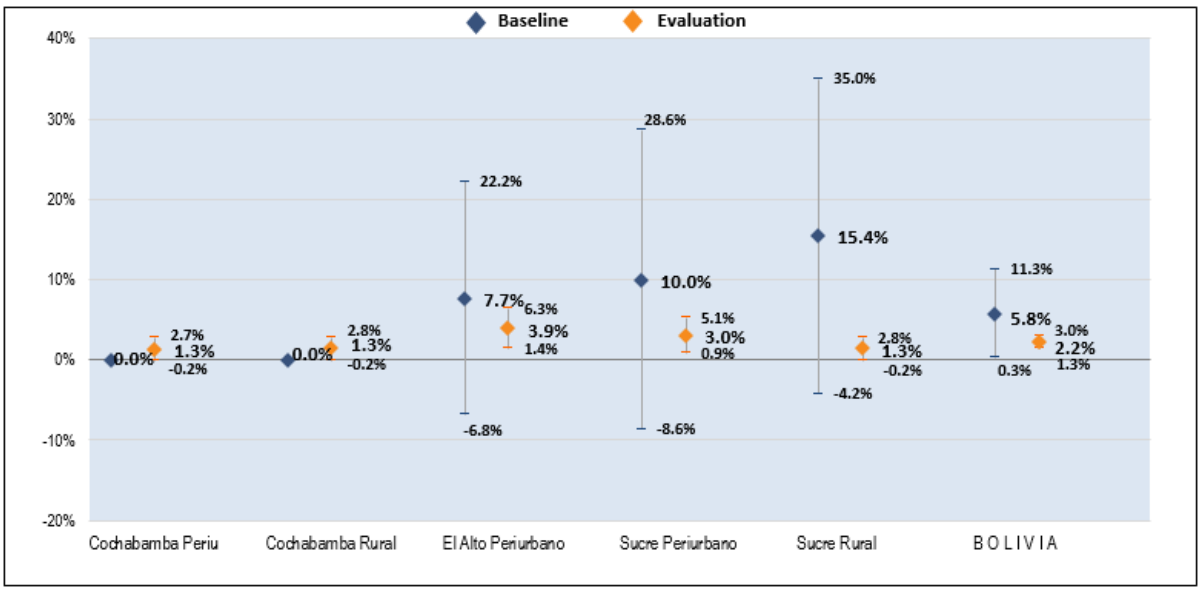


Graphic 31 shows that 2% of those interviewed in Bolivia stated that they have participated in 10 or more lessons on child stimulation; this represents a reduction of 2.7 percentage points in regard to the Baseline. On one hand, Peri-urban Cochabamba, Rural Cochabamba and Peri-urban El Alto saw a slight increase of 0.6, 1.5 and 1.9; Peri-urban Sucre attained a decline of 5.6 percentage points, finalizing at 2.4% and in Rural Sucre the reduction was 7.8 percentage points, situating itself in the end at 3.3%. The changes obtained in the indicator were not statistically significant, with the exception of what was observed in Peri-urban El Alto.

5.14 Participation In Lessons About Early Grade Success (Module 2)

The following graphic shows that only 2.2% of the caregivers interviewed in Bolivia states to have participated in 6 or more lessons to support the success of the first grades; the value obtained represents a reduction of 3.5 percentage points in regard to the Baseline. Peri-urban Cochabamba and Rural Cochabamba both increased 1.3 percentage points after surpassing the 0% obtained in the Baseline. Peri-urban El Alto declined 3.8 percentage points, finalizing at 3.9%, and the greatest reduction was Rural Sucre with 14.1 percentage points less that the Baseline, finalizing at 1.3%. Nonetheless, these changes were not statistically significant.

Graphic N°32: Percentage Of Caregivers Of Children Aged 0-18 Years Old That Have Participated In Six Or More Lessons That Offered Skills And Practices That Support The Success Of The First Grades (Module 2)

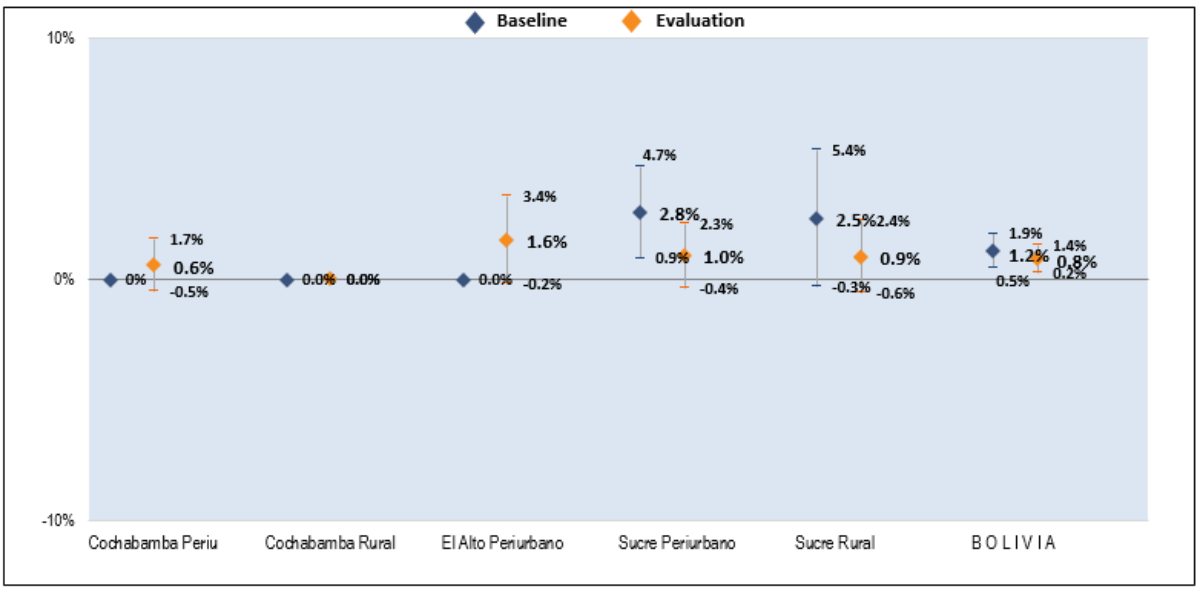


5.15 Toxic Stress

Participation In The Lesson On Toxic Stress:

Toxic stress negatively affects the brain development of children and has impacts that will mark them for the rest of their lives, such as decrease in memory of work, lack of attention, bad numeracy, skills for reading and writing, lack of self-control, lack of abilities to manage difficulties; therefore, it is important the caregivers implement strategies to protect the children from stressful situations.

Graphic N°33: Percentage Of Caregivers That Have Participated In At Least Three Meetings, Either In Community Or In A Small Group, Where They Have Discussed And Taken Steps To Actively Cope With Toxic Stress

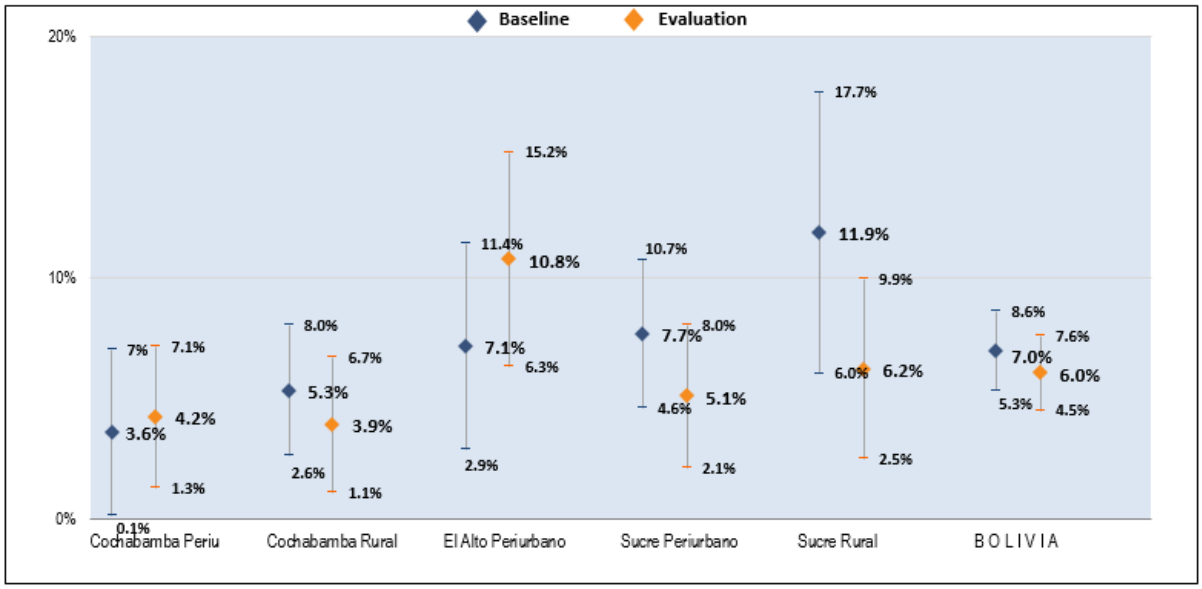


Graphic 33 shows that only 0.8% of the caregivers interviewed in Bolivia state that they have participated in at least three meetings on how to cope with toxic stress. The results obtained represent a slight reduction of 0.4 percentage points in regard to the Baseline. Peri-urban Cochabamba and Peri-urban El Alto both increased 0.6 and 1.6 percentage points after surpassing the 0% attained in the Baseline; Rural Cochabamba continues at 0%. Peri-urban Sucre and Rural Sucre declined 1.8 and 1.6 percentage points, finalizing at 1% and 0.9%; none of changes were statistically significant.

Toxic Stress Strategy

Following up, graphic 34 shows the percentage of caregivers that report having strategies to protect their child in toxic stress situations has gone up on a national level 1 percentage point since the Baseline, finalizing at 6%. Peri-urban Cochabamba and Peri-urban El Alto were Area Programs that obtained slight increases in the implementation of strategies on how to deal with toxic stress, incrementing 0.6 and 3.6 percentage points, respectively. The Area Programs that decreased were Rural Cochabamba with a decline of 1.4 percentage points, Peri-urban Cochabamba with a 2.6 decrease and Rural Sucre went down 5.7 percentage points.

Graphic N°34: Percentage Of Caregivers Of Children Aged 0 To 6 Years Old That Report Having At Least One Strategy That They Currently Use To Protect Their Child From Toxic Stress Situations



Educational Interventions

Despite the unfavorable factors in the education sector of the country, the educational interventions with FHB continued in a remote modality with the primary actors in the lives of the children – their caregivers and teachers – for the purpose of continuing their education and strengthen the learning in the home. The caregivers were strengthened with training on how to take action for the academic success of the children with Module 2 of Education, and the endowment of children's books for reading at home; the teachers were trained with tools for play to improve numeracy and comprehensive reading in the children through workshops given by external, expert personnel, also through other workshops on how to take action in psychosocial support for children in both virtual and in-class schooling.

VI. CROSS ANALYSIS OF EDUCATION SURVEY

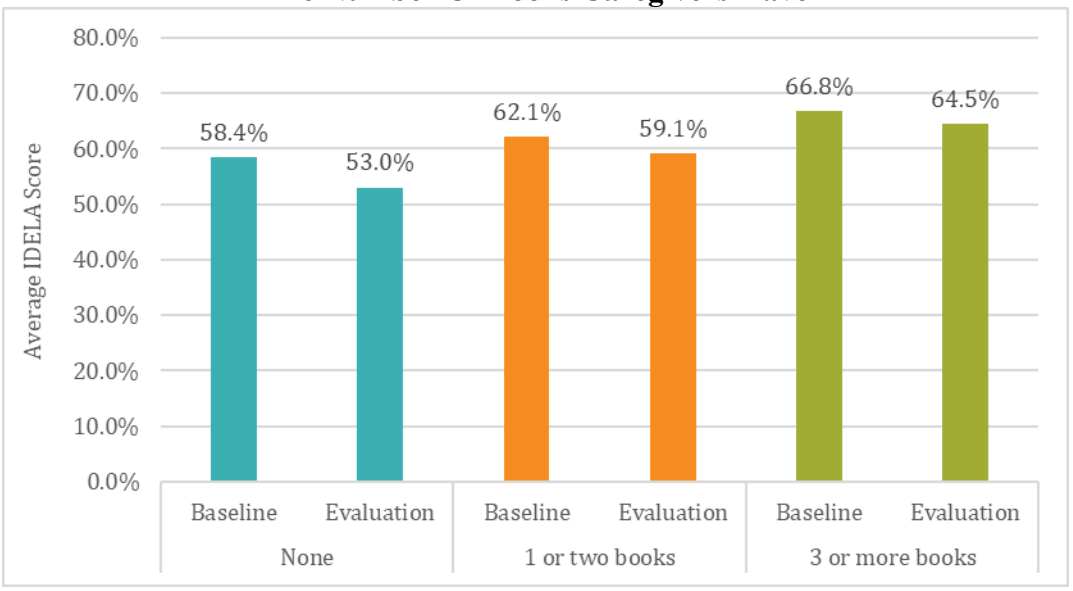
The cross tabulations are data tabulations that show us not only the results of the whole group that was interviewed, but also the results of specifically defined subgroups. The variables are grouped together in the cross tabulations and we can understand the correlation or association between the different variables. As we show how the correlations of one group of variables with another, the cross tabulations allow us to identify patterns, tendencies and probabilities within the whole of the data. In this cross analysis, the association between the three pathways (the caregiver that has more books, the caregiver that engages in learning activities and the

children that attend preschool) is proven by the IDELA score of children aged 5.5 to 6.5 years old. In the same way, the association between nine pathways (prior preschool attendance, the knowledge of the caregiver about the requirements for the grade, learning activities outside of school, supportive reading environment in the home, school absenteeism, caregivers engaging in learning activities, designated study space) is assessed based on the capacity of the children in third grade to meet the literacy and numeracy standards. These twelve interventions were recommended by the Education Guide of CFCT. The purpose of this cross analysis is to allow the country to improve the planning based on evidence, and that the results and activities are linked to a detailed understanding of what will really produce the change, the progress towards achieving the KPI of Education (tendencies) and also if the educational interventions are efficient or not.

Research Question 1: Is there a difference in scores for children in HH where the child has three or more children's books?

The hypothesis is that, the more books a caregiver has, the higher the IDELA score of the child should be.

Graphic 1.1: Relationship Between IDELA Score Of Children 5.5 - 6.5 Years Old And The Number Of Books Caregivers Have



In graphic 1.1 we see clearly that as the number of books a caregiver has grows, the IDELA score of the children aged 5.5 to 6.5 years old also increases.

You can see that, while in the Baseline the average IDELA score for children aged 5.5 to 6.5 years old whose caregiver doesn't have books is 58.4%, the average IDELA score for children

whose caregiver has one or two books increases 3.7 percentage points, reaching 62.1%, and 4.7 percentage points more to finalize at 66.8% when the caregiver has three or more books.

The same can be observed in the final assessment. The average IDELA score for children aged 5.5 to 6.5 years old whose caregiver doesn't have books is 53%, and 6.1 percentage points when the caregiver has one or two books, reaching 59.1%, and, finally, increasing 5.4 percentage points to end up with 64.5% when the caregiver has three or more books.

Table 1.1: Association between caregivers with children aged 5.5 -6.5 years having three or more books and the children achieving the mastery status in IDELA

Table 1.1.1.a: (Baseline) ODDS RATIO - 3 or more books			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.9825	0.6979	5.6311 (T)

Table 1.1.1.a: (Baseline) clearly shows that the children aged 5.5 to 6.5 years old whose caregivers have 3 or more books are 1.9 times more likely to reach the mastery level (a score of or higher than 75%) in comparison to the children whose caregivers don't have any books. The findings of the Baseline are not statistically significant, as the confidence interval overlaps.

Table 1.1.1.a: (Evaluation) ODDS RATIO - 3 or more books			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.5174	1.4977	4.2315 (T)

The table 1.1.1.a: (Evaluation) clearly shows that, in the Final Assessment, the children aged 5.5 to 6.5 years old whose caregivers have 3 or more books are 2.5 times more likely to reach the mastery level (a score of or higher than 75%) in comparison to the children whose caregivers did not have any books. The findings of the Final Assessment are statistically significant, as the breadth of the confidence interval is less than +-5 percent.

Table 1.1.2.a : (Baseline) ODDS RATIO - 1 or more books			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper

PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.3171	0.8141	6.5952 (T)

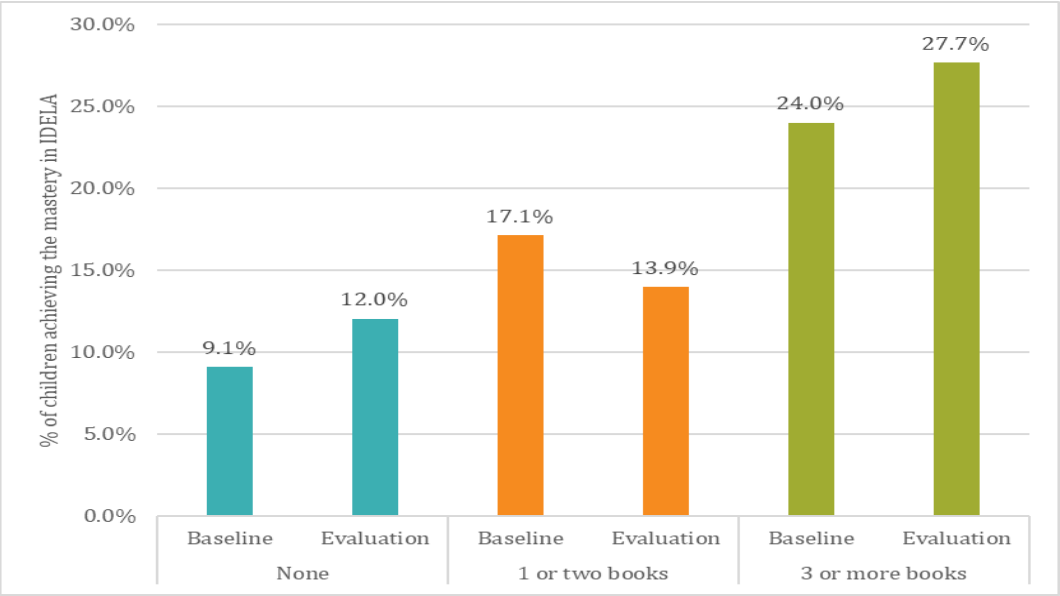
The table 1.1.2.a (Baseline) shows that the children aged 5.5 to 6.5 years old whose caregivers have 1 or more books are 2.3 times more likely to reach the mastery level (a score of or higher than 75%) in comparison the children whose caregivers did not have any books. The outcome of the Baseline is not statistically significant, as the confidence interval overlaps.

Table 1.1.2.a : (Evaluation) ODDS RATIO - 1 or more books

	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.6875	0.9326	3.0536 (T)

The table 1.1.2.a (Evaluation) clearly shows that, in the Final Assessment, the children aged 5.5 to 6.5 years whose caregivers have 1 or more books are 1.68 times more likely to reach the mastery level (a score of or higher than 75%) in comparison to the children whose caregivers do not have any books. The outcome is not statistically significant, as the confidence interval overlaps.

Graphic 1.2: Relationship Between Mastery Status In IDELA Of Children 5.5-6.5 Years Old And The Number Of Books A Caregiver Has



In graphic 1.2 we can clearly see that, as the number of books that a caregiver has grows, the proportion of children that achieve mastery in IDELA also increases. While the percentage of mastery in IDELA for children aged 5.5 to 6.6 years old whose caregivers don't have any books was 9.1% in the Baseline and 12% in the Final Assessment, the percentage of mastery in IDELA for children whose caregivers have one or two books increased 8 percentage points in the Baseline and 1.9 percentage points in the Final Assessment, situating itself at 17.1% and 13.9%, respectively, and finally increasing to 24% and 27% when a caregiver has three or more books.

Table 1.2: Association Between IDELA Score Of Children Aged 5.5 - 6.5 Years Old And The Number Of Books The Caregivers Have

Table 1.2.1.a: (Baseline) ANOVA - 3 or more books				
Variation	SS	df	MS	F statistic
Between	0.7947	1.0000	0.7947	19.2006
Within	23.1369	559.0000	0.0414	
Total	23.9316	560.0000		
P Value	0.0000			

Table 1.2.1.a: (Evaluation) ANOVA - 3 or more books				
Variation	SS	df	MS	F statistic
Between	1.4780	1.0000	1.4780	38.2257
Within	32.6334	844.0000	0.0387	
Total	34.1114	845.0000		
P Value	0.0000			

Table 1.2.2.a: (Baseline) ANOVA - 1 or more books				
Variation	SS	df	MS	F statistic
Between	1.6292	1.0000	1.6292	40.8346
Within	22.3025	559.0000	0.0399	
Total	23.9316	560.0000		
P Value	0.0000			

Table 1.2.2.a: (Evaluation) ANOVA - 1 or more books				
Variation	SS	df	MS	F statistic
Between	2.1697	1.0000	2.1697	57.3294
Within	31.9417	844.0000	0.0378	

Total	34.1114	845.0000		
P Value	0.0000			

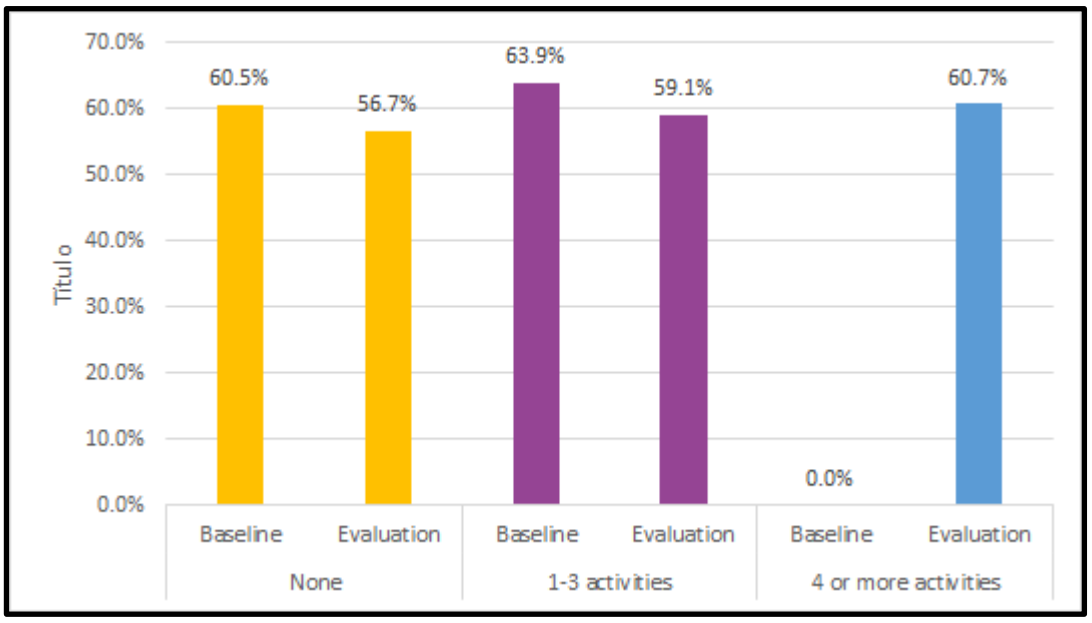
The tables 1.2.1.a (Baseline) and 1.2.1.a (Evaluation) present the Variation Analysis (ANOVA) which compares the difference of the average IDELA score between children whose caregivers have three or more books and children whose caregivers have less than three books. Both tables show that there is a significant difference in the average IDELA score between the two groups in both settings. This finding is statistically significant, as the p values in both cases are less than 0.01.

In the same way, tables 1.2.2.a (Baseline) and 1.2.2.a (Evaluation) compare the difference of the average IDELA score between children whose caregivers have one or more books and the children whose caregivers do not have books. Both tables show that there is a significant difference in the average IDELA score between the two groups in both settings. This finding is statistically significant, because the p values in both cases are less than 0.01.

Research Question 2: Is there a difference in scores when caregivers engage in regular learning activities?

The hypothesis is that, the more the caregiver engages in learning activities with their children at home, the higher the IDELA mastery will be.

Graphic 2.1: Relationship Between Caregivers With Children Aged 5.5 - 6.5 Years Old Who Are Engaged In Learning Activities And Mastery Status In IDELA



In graphic 2.1 it is evident that the children aged 5.5 to 6.5 years old whose caregiver is not engaged in any learning activity had an average IDELA mastery of 60.5% in the Baseline and 56.7% in the Final Assessment, later increasing to 63.9% in the Baseline and to 59.1% in the Final Assessment if the caregiver is engaged in one to three activities, and, finally, increases to 60.7% in the Final Assessment when the caregiver engages in four or more activities.

Table 2.1: Association between caregivers with children aged 5.5 -6.5 years engaged in 1or more activities and the children achieving the mastery status in IDELA

Table 2.1.1.a: (Baseline) ODDS RATIO - 1 or more activities			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.9143	0.3367	2.4830 (T)

It is evident, looking at table 2.1.1.a (Baseline), that the children aged 5.5 to 6.5 years old whose caregivers did not engage in 1 or more activities are 1.1 times more likely to achieve a level of mastery (a score of or higher than 75%) than the children whose caregiver is engaged in any learning activity. The findings of the Baseline are not statistically significant, as the confidence interval crosses over one.

Table 2.1.1.a: (Evaluation) ODDS RATIO - 1 or more activities			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper

PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.8748	0.4474	1.7105 (T)

It is evident looking at table 2.1.1.a (Evaluation) that the children aged 5.5 to 6.5 years old whose caregivers did not engage in 1 or more activities are 1.15 times more likely to reach a level of mastery (a score of or higher than 75%) than the children whose caregivers are involved in any learning activity. The finding is not statistically significant, as the confidence interval crosses over one.

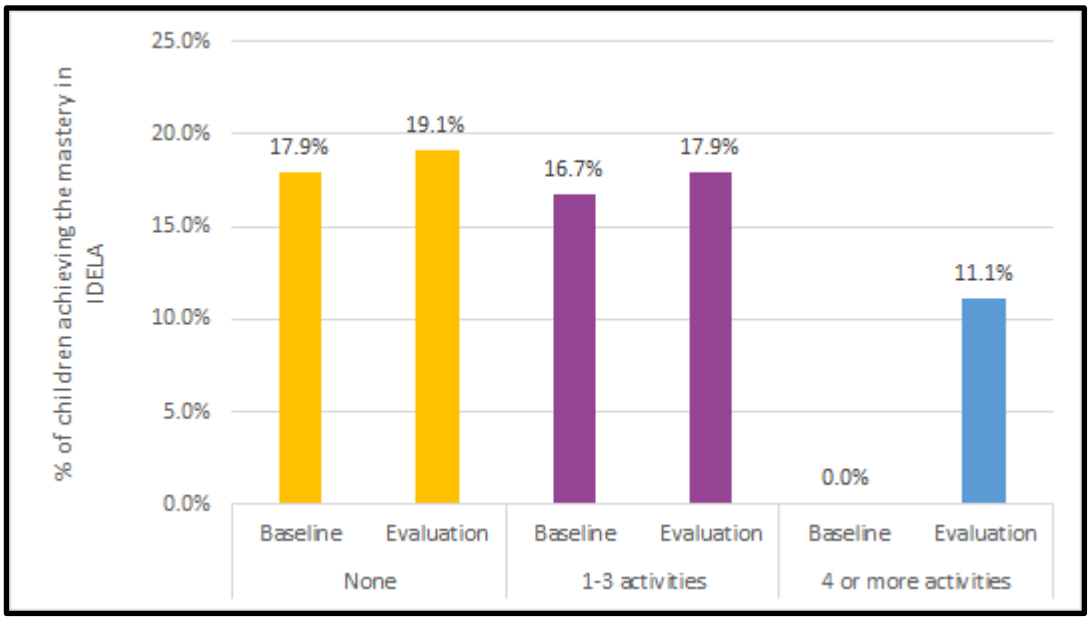
Table 2.1.2.a: (Baseline) ODDS RATIO - 4 or more activities			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	Undefined	Undefined	Undefined (T)
Risk Ratio (RR)	NaN	NaN	NaN (T)

As is evident in table 2.1.2.a (Baseline), there were insufficient children whose caregivers engaged in four or more activities, and, therefore, we cannot establish any association between the variables.

Table 2.1.2.a: (Evaluation) ODDS RATIO - 4 or more activities			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.5645	0.1928	1.6524 (T)

It is evident, looking at table 2.1.2.a: (Evaluation), that the children aged 5.5 to 6.5 years old whose caregivers did not engage in four or more activities are 1.8 times more likely to achieve a mastery level (a score of or higher than 75%) than the children whose caregivers are engaged in any learning activity. The findings of the Final Assessment are not statistically significant, as the confidence interval crosses over one.

Graphic 2.2: Relationship Between Caregivers With Children 5.5 - 6.5 Years Old Who Are Engaged In Learning Activities And The IDELA Score



In graphic 2.2 we observe that the percentage of mastery in IDELA of children aged 5.5 to 6.5 years old whose caregiver is not engaged in any learning activity was at 17.9% in the Baseline and at 19.1% in the Final Assessment, and decreasing to 16.7% in the Baseline and to 17.9% in the Final Assessment if the caregiver is engaged in one to three activities; the decrease is more notorious with an outcome of 11.1% in the Final Assessment when the caregiver is engaged in four or more activities. The outcome is not in line with the expected hypothesis in the analysis of the relation between the indicators.

Table 2.2: Association Between IDELA Score Of Children Aged 3.5 - 6.5 Years Old And The Number Of Activities Caregivers Are Engaged In

Table 2.2.1.a: (Baseline) ANOVA -1 or more activities				
Variation	**SS**	**df**	**MS**	**F statistic**
Between	0.0657	1.0000	0.0657	1.5555
Within	18.9187	448.0000	0.0422	
Total	18.9844	449.0000		
P Value	0.2130			

Table 2.2.1.a: (Evaluation) ANOVA -1 or more activities				
Variation	**SS**	**df**	**MS**	**F statistic**
Between	0.0057	1.0000	0.0057	0.1448
Within	28.0260	710.0000	0.0395	
Total	28.0317	711.0000		
P Value	0.7037			

Table 2.2.2.a: (Baseline) ANOVA - 4 or more activities				
Variation	SS	df	MS	F statistic
Between	0.2049	1.0000	0.2049	4.8887
Within	18.7795	448.0000	0.0419	
Total	18.9844	449.0000		
P Value	0.0275			

Table 2.2.2.a: (Evaluation) ANOVA - 4 or more activities				
Variation	SS	df	MS	F statistic
Between	0.0034	1.0000	0.0034	0.0853
Within	28.0284	710.0000	0.0395	
Total	28.0317	711.0000		
P Value	0.7703			

The tables 2.2.1.a (Baseline) and 2.2.2.a: (Baseline) present the Variation Analysis (ANOVA) which compares the mean difference between the two groups. The tables 2.2.1.a (Baseline) compare the differences in the average IDELA score between children whose caregivers engage in one or more activities and the children whose caregivers do not engage at all, and tables 2.2.2.a (Baseline) compare the difference in the average IDELA score between the children whose caregivers engaged in 4 or more activities and if the caregivers engaged in less than 4 activities. Both ANOVA tables show that there is a significant difference in the average IDELA score between the two groups in both settings. This finding is not statistically significant in the Baseline, as the p values are higher than 0.01.

In the same way, the outcome of the Final Assessment is presented in tables 2.2.1.a (Evaluation) and 2.2.2.a: (Evaluation) with the Variation Analysis (ANOVA); both ANOVA tables show the existing difference between the average IDELA score between the two groups in both settings. This finding is not statistically significant in the Final Assessment, as the p values are higher than 0.01.

Research Question 3: How does preschool attendance affect IDELA scores?

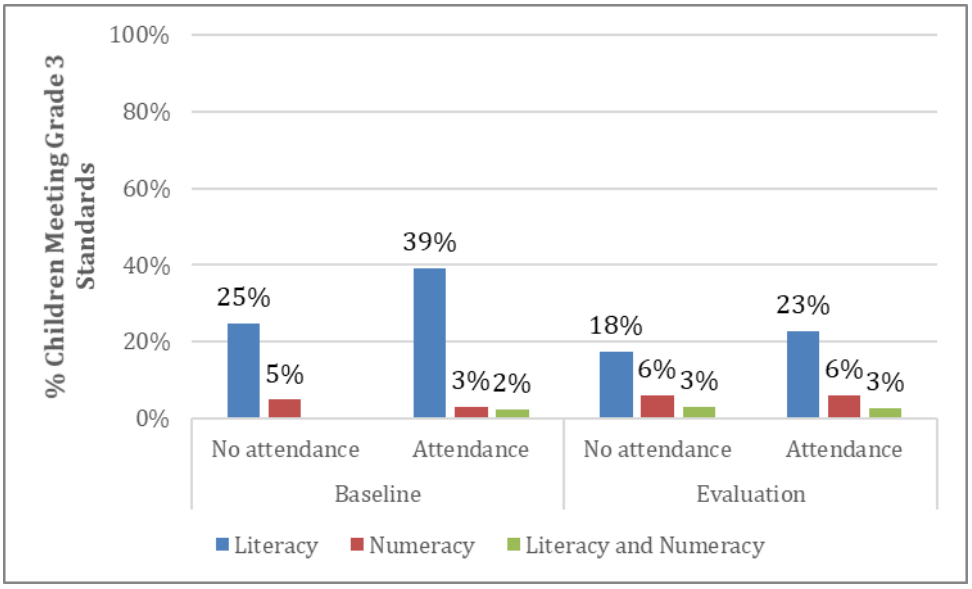
Since preschool attendance was not included as a variable in the IDELA survey, this cross analysis was not possible.

FINDINGS FROM THE CROSS TABULATIONS IN CLA

Research Question 4: How does preschool attendance affect whether the child is able to pass third grade literacy and numeracy standards?

As we see in graphic 4, in the Baseline 39% of the children aged 9 years old that attended preschool could meet the literacy standards of grade 3 in comparison with only 25% of the children that did not attend preschool but were still able to meet the literacy standards. In numeracy standards, 5% of the children that did not attend preschool met the numeracy standards in comparison to the 3% that did attend preschool. However, both in literacy and numeracy, there were no children that did not attend preschool and met the standard in comparison to the 2% that did meet the standards and attended preschool.

Graphic 4: Relationship Between Preschool Attendance And The Ability Of The Child To Pass Grade 3 Literacy And Numeracy Standards



In the Final Assessment, 23% of the children aged 9 years old that attended preschool can meet the literacy standards of grade 3 in comparison with the 18% of the children that did not attend preschool but could still meet them. In numeracy terms, the percentage of children that did not attend and could meet the numeracy standards coincides with the 6% of children that attended and met the standards; in the same way 3% of children attended and 3% that did not attend preschool met the standard.

Table 4.1: Association Between Preschool Attendance And The Child's Ability To Pass Grade 3 Literacy Standards

Table 4.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.9342	0.6608	5.6613 (T)

A we can see in table 4.1.a: Baseline, the children that had attended preschool are 1.93 times more likely to meet the literacy standard in comparison with the children who did not attend preschool. This finding in the Baseline is not statistically significant, as the confidence interval crosses over one.

Table 4.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.4023	0.7951	2.4732 (T)

As you can see in table 4.1.a: Evaluation, the children that had attended preschool are 1.40 times more likely to meet the literacy standard in comparison with the children that did not attend preschool. This finding in the Final Assessment is not statistically significant, as the confidence interval overlaps.

Table 4.2: Association Between Preschool Attendance And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 4.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.6281	0.0666	5.9241 (T)

As seen in table 4.2.1: Baseline, the children that attended preschool are only 62.8% as likely to meet the numeracy standards of grade 3 than the children that did not attend preschool. This finding is not statistically significant, as the confidence interval crosses over one.

Table 4.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.9992	0.4021	2.4832 (T)

As we can see in table 4.2.a: Evaluation, the children that attended preschool are essentially just as likely to meet the numeracy standards of grade 3 than the children that did not attend preschool. This finding is not statistically significant, as the confidence interval crosses over one.

Table 4.3: Association Between Preschool Attendance And The Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 4.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	Undefined	Undefined	Undefined (T)
Risk Ratio (RR)	1.0246	0.9968	1.0531 (T)

As seen in table 4.3.1: Baseline, there were insufficient samples to understand the association between preschool attendance and the capacity of the child to pass grade 3. Given that the risk ratio is also one, there is no difference between the two groups. Therefore, in the Baseline, whether the children did or did not attend preschool, they had the same probability to meet the literacy and numeracy standards for grade 3. However, this finding is not statistically significant, as the confidence interval crosses over one.

Table 4.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.9258	0.2587	3.3130 (T)

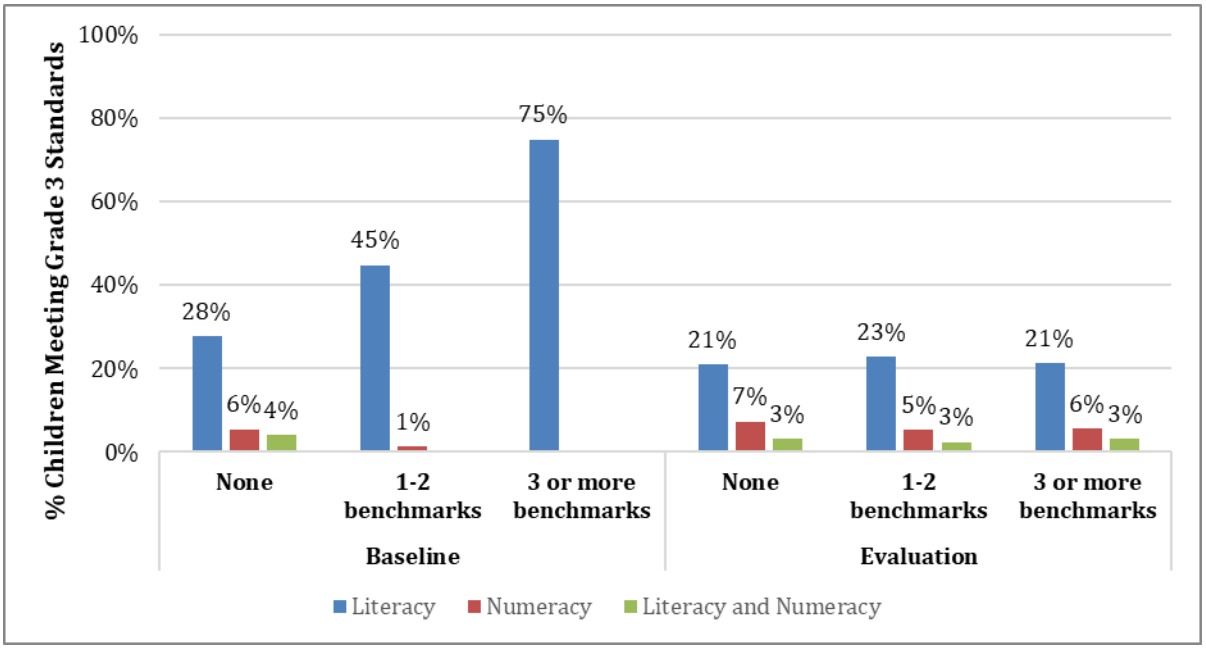
As seen in table 4.2.a: Evaluation, the children that attended preschool are 92.5% as likely to meet the literacy and numeracy standards for grade 3 than the children that did not attend preschool. This finding is not statistically significant, as the confidence interval crosses over one.

The hypothesis is that, if the children attend preschool, they are more likely to meet the literacy and numeracy standards of grade three. Based on the association test that was shown in the previous tables, we can conclude that there is an association between the children aged 9 years that attended preschool and their capacity to meet the literacy standard of third grade. However, there was not a positive association demonstrated between preschool attendance and the capacity to meet the numeracy standards.

Research Question 5: How does caregiver's knowledge of grade requirements affect the child's performance?

The hypothesis is that, the more the caregiver of children aged 9 years old knows about grade requirements, the more likely the child is to be able to meet the standards of grade 3.

Graphic 5: Relationship Between Caregiver's Knowledge Of Grade Requirements And The Child's Ability To Meet Grade 3 Standards



Graphic 5 shows clearly in the Baseline that, as the caregiver's (of children aged 9 years old) knowledge about the requirements of grade 3 grows, so does the proportion of children that can meet the literacy requirements of grade 3. The same cannot be said about numeracy and literacy with numeracy.

In the Final Assessment we can observe up until the knowledge of 1-2 requirements, there is an increase of 2 percentage points in the proportion of children that can meet the literacy requirements of grade 3, and after that there is a reduction of that same proportion of literacy, as also in numeracy and additionally, the standards of literacy and numeracy remain constant.

Table 5.1: Association Between Caregiver's Knowledge Of Grade Requirements And The Child's Ability To Pass Grade 3 Literacy Standards

Table 5.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.2667	1.1358	4.5235 (T)

As seen in table 5.1.a: Baseline, the children aged 9 years old whose caregivers know the requirements of third grade are twice as likely to meet the literacy standard in comparison with the children whose caregivers do not know the requirements of third grade. The finding is statistically significant in the Baseline, as the breadth of the confidence interval is less than +- 5 percent.

Table 5.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.0776	0.7026	1.6528 (T)

As observed in table 5.1.a: Evaluation, the children aged 9 years old whose caregivers know the requirements of third grade are 1.07 times more likely to meet the literacy standard in comparison with the children whose caregivers do not know the requirements of third grade. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 5.2: Association Between Caregiver's Knowledge Of Grade Requirements And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 5.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.2361	0.0257	2.1659 (T)

As observed in table 5.2.a: Baseline, the children aged 9 years old whose caregivers know the requirements of third grade are 23.6% as likely to meet the numeracy standards in comparison with the children whose caregivers do not know the requirements of third grade. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 5.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.7331	0.3616	1.4866 (T)

In table 5.2.a: Evaluation, we observe that the children aged 9 years old whose caregivers know the requirements of third grade are 73.3% as likely to meet the numeracy standards in comparison with the children whose caregivers do not know the requirements of third grade. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 5.3: Association between caregiver's knowledge of grade requirements and the child's ability to pass grade 3 literacy and numeracy standards

Table 5.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.0000	Undefined	Undefined (T)
Risk Ratio (RR)	0.9583	0.9133	1.0056 (T)

As seen in table 5.3.a: Baseline, there were insufficient samples to understand the association between the two groups regarding the literacy and numeracy standards. Nonetheless, from the risk ratio, if the caregiver did not have knowledge about the grade 3 requirements, the children are 95.8% as likely to not be able to meet the literacy and numeracy standards. The finding in the Baseline is not statistically significant, because the confidence interval crosses over one.

Table 5.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.8689	0.3109	2.4286 (T)

In table 5.2.a: Evaluation, we observe that the children aged 9 years old whose caregivers know the requirements of third grade are 86.8% as likely to meet the literacy and numeracy standards of grade 3 in comparison with the children whose caregivers do not know the requirements of third grade. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

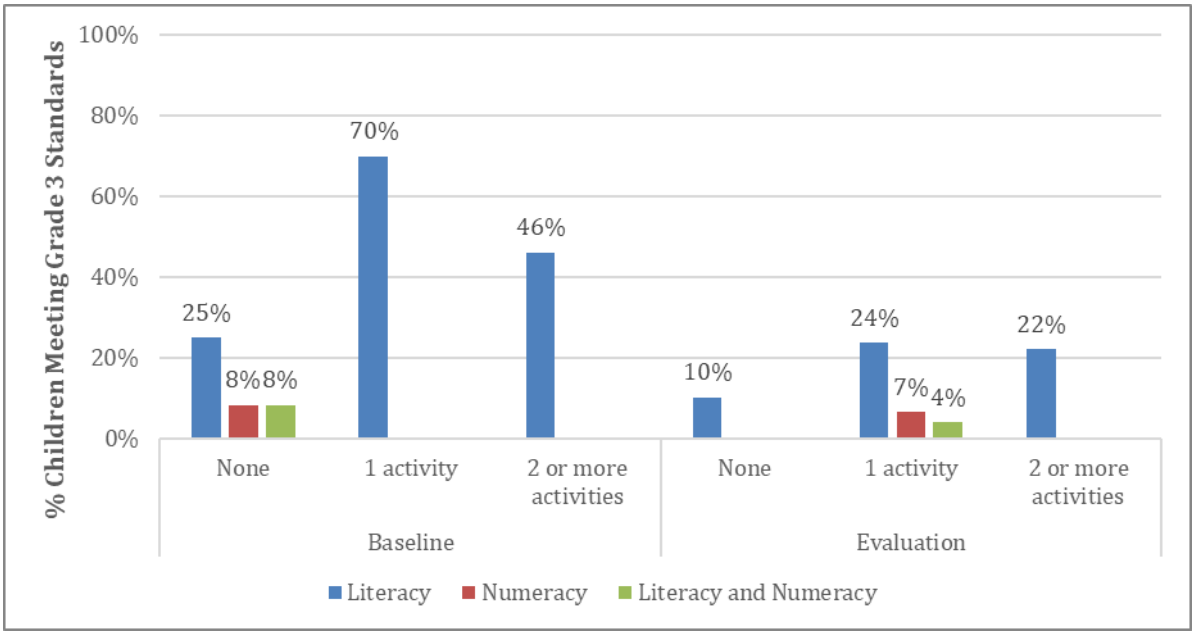
The hypothesis is that, if the caregivers of the children aged 9 years old know the requirements of grade 3, the children are more likely to meet the literacy and numeracy and literacy and

numeracy standards of grade 3. Based on the association test that was shown in the previous tables, we can conclude that in the Baseline and Final Assessment there is a strong association between the children aged 9 years old whose caregivers know the grade 3 requirements and their capacity to meet the literacy standards of third grade. However, there is an inverse association between knowledge of third grade standards and numeracy standards and the standards of literacy and numeracy.

Research Question 6: How do out-of-school learning activities increase ability to pass the assessment?

The hypothesis is that, the more a child engages in learning activities outside of school, the more likely that child is to meet the grade three standards of literacy, numeracy, and both literacy and numeracy.

Graphic 6: Relationship Between Attendance Of Out-Of-School Learning Activities And The Child's Ability To Meet Grade 3 Standards



It is evident in graphic 6 in the Baseline that, if the child does not engage in any activity, only 25% of the children could me the literacy standards; however, if the children engaged in at least one activity, the proportion of children that meet the literacy standards increases to 70%. Nonetheless, for some reason, the proportion of children that meet the literacy standards declined 24 percentage points when the children engage in more than two activities, reaching 46%; in terms of numeracy and both literacy and numeracy, there was no evidence of any increase as the child engaged in more learning activities.

The performance was similar in the Final Assessment, if the child did not engage in any activity, only 10% could meet the literacy standards; however, if the children engaged in at least one activity, the proportion of children that could meet the literacy standards increased to 24%, in numeracy it increased to 7% and both in literacy and numeracy 4%. Nonetheless, all the standards declined when the children engaged in more than two activities.

Table 6.1: Association Between Engagement In Out-Of-School Learning Activities And The Child's Ability To Pass Grade 3 Literacy Standards

Table 6.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	3.9000	0.8319	18.2832 (T)

As seen in table 6.1.a: Baseline, the children aged 9 years old that engage in extracurricular activities are 3.9 times more likely to meet the literacy standards in comparison with the children that do not engage in any out-of-school activity. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 6.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.6582	0.8580	8.2361 (T)

As seen in table 6.1.a: Evaluation, the children aged 9 years old that engage in extracurricular activities are 2.6 times more likely to meet the literacy standard in comparison with the children that do not engage in any out-of-school activity. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 6.2: Association between engagement in out-of-school learning activities and the child' ability to pass grade 3 numeracy standards

Table 6.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.0000	Undefined	Undefined (T)
Risk Ratio (RR)	0.9167	0.7729	1.0872 (T)

As seen in table 6.2.a: Baseline, there were insufficient samples to understand the association between the two groups regarding the literacy and numeracy level. Nonetheless, from the risk ratio, if the children do not engage in out-of-school activities, they are 91.6% as likely to not be able to meet the numeracy standards. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 6.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	Undefined	Undefined	Undefined (T)
Risk Ratio (RR)	1.0510	1.0062	1.0979 (T)

In the same way, in table 6.2.a: Evaluation, we observe that there were insufficient samples to understand the association between the two groups regarding the literacy and numeracy level. However, from the risk ratio, if the children do not engage in out-of-school activities, they are 105% as likely to not be able to meet the numeracy standards. The finding is statistically significant in the Baseline, as the breadth of the confidence interval is less than +-5 percent.

Table 6.3: Association Between Engagement In Out-Of-School Learning Activities And The Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 6.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			

Odds Ratio (cross product)	0.0000	Undefined	Undefined (T)
Risk Ratio (RR)	0.9167	0.7729	1.0872 (T)

As we can see in table 6.3.a: Baseline, there were insufficient samples to understand the association between the two groups regarding the literacy and numeracy level. However, from the risk ratio, if the children do not engage in out-of-school activities, they are 91.6% as likely to not be able to meet the literacy and numeracy standards. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

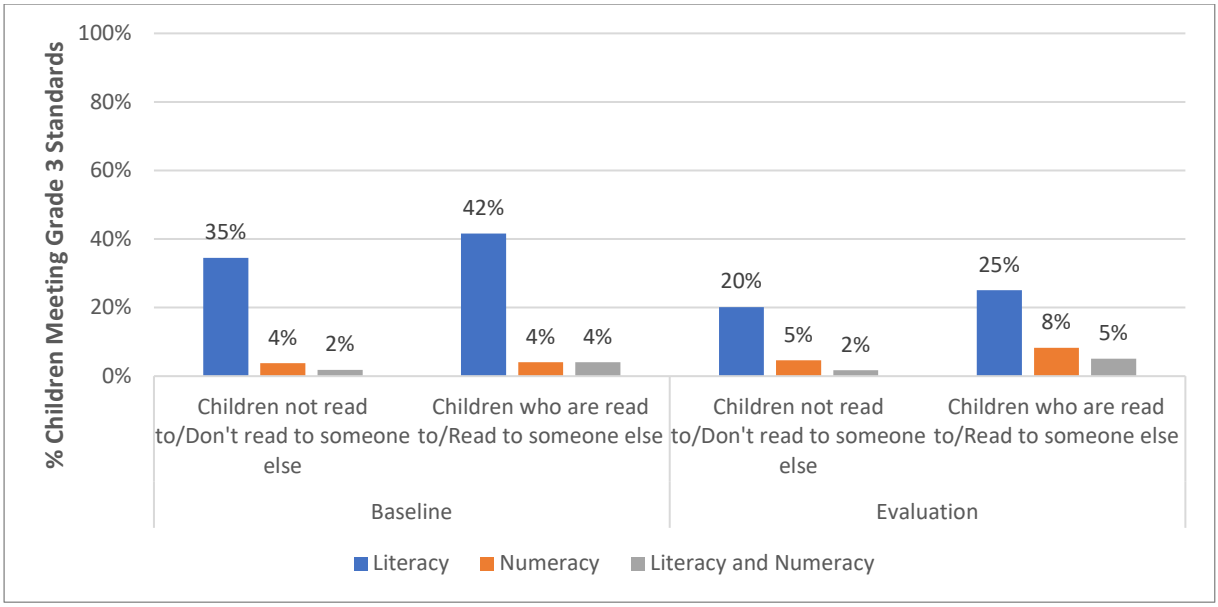
Table 6.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	Undefined	Undefined	Undefined (T)
Risk Ratio (RR)	1.0300	0.9961	1.0650 (T)

In the same way, in table 6.3.a: Evaluation, there were insufficient samples to understand the association between the two groups regarding the literacy and numeracy level. However, from the risk ratio, if the children do not engage in out-of-school activities, they are 103% as likely to not be able to meet the literacy and numeracy standards. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Research Question 7: How does a supportive reading environment increase the ability to pass the Assessment?

The hypothesis is that, the more a child is given a supportive reading environment at home, the more likely that child is to meet the third-grade literacy, numeracy and literacy and numeracy. A supportive reading environment at home is defined as children who are read to, or who read to someone else at home.

Graphic 7: Relationship Between Home Reading Environment And Child's Ability To Meet Grade 3 Standards



Graphic 7 shows that this hypothesis can be true, as in the Baseline 42% of the children that have a supportive reading environment at home meet the literacy standards in comparison with 35% of children that do not have a supportive reading environment. However, this difference is not so big in the case of numeracy that remains a constant 4% and literacy and numeracy that increases 2 percentage points, finalizing at 4% when children have a supportive reading environment.

In the Final Assessment, 25% of the children with a supportive reading environment at home meet the literacy standards in comparison with 20% that do not have a supportive reading environment, 8% meet the numeracy standards in comparison with 5% of children that comply and do not have a supportive reading environment, and 5% that meet the literacy and numeracy standards in comparison with 3% that comply but do not have a supportive reading environment.

Table 7.1: Association between caregivers supporting a reading environment and the child's ability to pass grade 3 literacy standards

Table 7.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.3492	0.6688	2.7218 (T)

As seen in table 7.1.a: Baseline, the children aged 9 years whose caregivers support a reading environment are 1.3 times more likely to meet the literacy standard in comparison with the children whose caregivers do not support a reading environment. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 7.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.3224	0.8600	2.0335 (T)

In a similar way, we observe table 7.1.a: Evaluation, that the children aged 9 years old whose caregivers provide a supportive reading environment at home are 1.3 times more likely to meet the literacy standards in comparison with the children whose caregivers do not provide a supportive reading environment at home. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 7.2: Association Between a Supportive Reading Environment And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 7.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.0870	0.1921	6.1493 (T)

As seen in table 7.2.a: Baseline, the children aged 9 years old whose caregivers provide a supportive reading environment are 1.08 times more likely to meet the numeracy standards in comparison with the children whose caregivers do provide a supportive reading environment. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 7.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper

PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.8441	0.9000	3.7784 (T)

In the same way, the outcome of the Final Assessment shows in table 7.2.a: Evaluation, that it is evident that children aged 9 years old whose caregivers support a reading environment are 1.08 times more likely to meet the numeracy standards in comparison with the children whose caregivers support a reading environment. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 7.3: Association Between Caregivers Supporting A Reading Environment And Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 7.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.2174	0.3029	16.2323 (T)

As seen in table 7.3.a: Baseline, the children aged 9 years old whose caregivers provide a supportive reading environment in the home are twice as likely to meet the literacy and numeracy standards in comparison with the children whose caregivers do not provide a supportive reading environment. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 7.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.9660	1.0937	8.0436 (T)

As we can see in table 7.3.a: Evaluation, the children aged 9 years old whose caregivers provide a supportive reading environment are 2.9 times more likely to meet the literacy and numeracy standards in comparison with the children whose caregivers do not support a reading

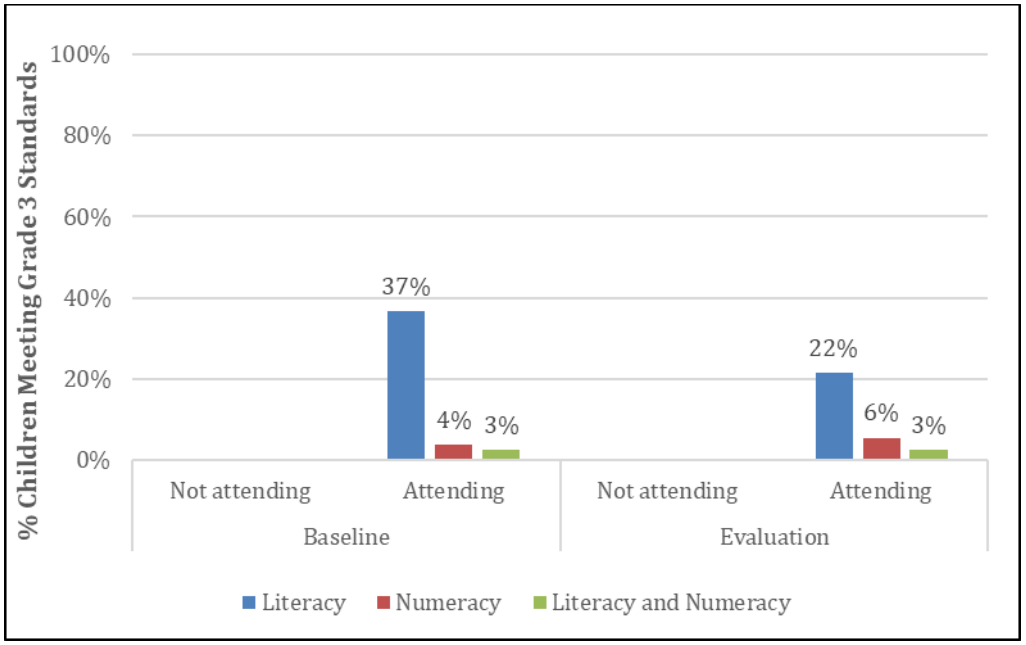
environment. The finding is statistically significant in the Final Assessment, as the breadth of the confidence interval is less than +-5 percent.

Based on the test of association shown in the previous tables, we can conclude that there is a strong association between the caregivers that provide a supportive reading environment in the home and the capacity of their children to meet the literacy standards of grade 3, the numeracy standards and the literacy and numeracy standards, both in the Baseline and in the Final Assessment.

Research Question 8: How does school absenteeism affect ability to pass the assessment?

The hypothesis is that, if the child attends school, the greater the likelihood is that it meets the third-grade literacy, numeracy and literacy and numeracy standards.

Graphic 8: Relationship Between School Absenteeism And The Child's Ability To Meet Grade 3 Standards



Showing the Baseline and the Final Assessment, there were insufficient children found that did not go to school, so it was not possible do a significant cross tab, especially for numeracy and literacy and numeracy

Graphic 8 shows some difference in terms of literacy, a slight difference for numeracy and the same for literacy and numeracy combined.

Table 8.1: Association Between School Absenteeism And Child's Ability To Pass Grade 3 Literacy Standards

The sample is insufficient in the merged Database of Caregivers, CLA and IDELA.

Table 8.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.0000	Undefined	Undefined (T)
Risk Ratio (RR)	0.7843	0.7520	0.8180 (T)

As we can see in table 8.1.a: Evaluation, there were insufficient samples to understand the association between the two groups regarding the literacy standard. However, from the risk ratio, we can say that, if a child does not attend school, they are 0.78 times less likely to be able to meet the literacy standard. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 8.2: Association Between School Absenteeism And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 8.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.0000	Undefined	Undefined (T)
Risk Ratio (RR)	0.9431	0.9248	0.9619 (T)

As we can see in table 8.2.a: Evaluation, there were insufficient samples to understand the association between the two groups regarding the numeracy standards. However, from the risk

ratio, we can say that, if a child does not attend school, they are 0.94 times less likely to be able to meet the numeracy standards. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 8.3: Association Between School Absenteeism And The Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 8.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.0000	Undefined	Undefined (T)
Risk Ratio (RR)	0.9732	0.9604	0.9863 (T)

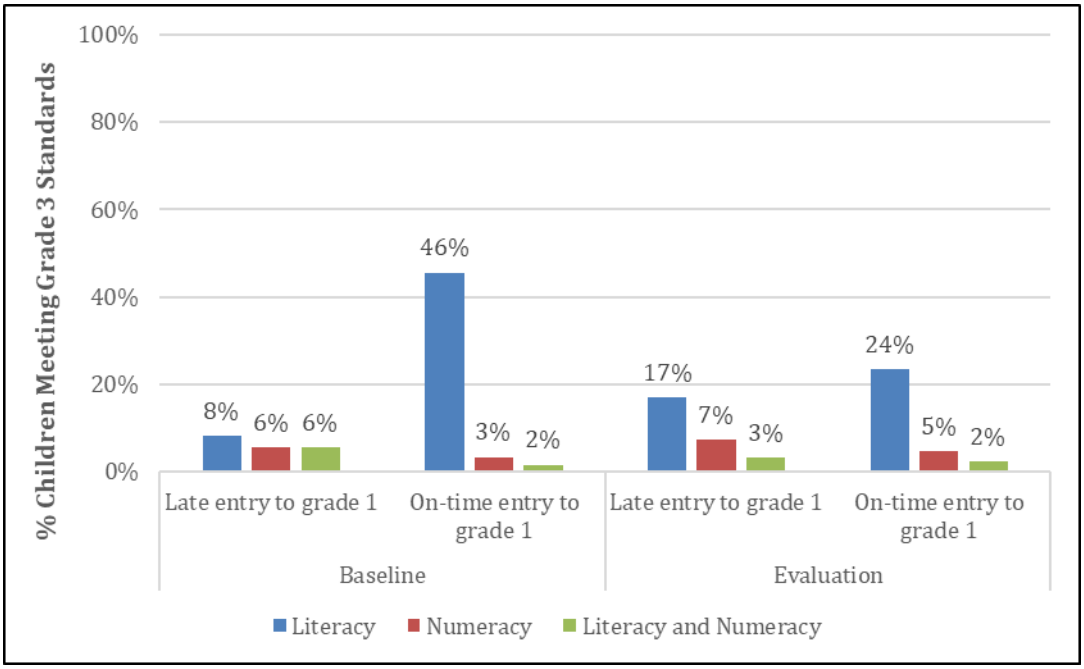
As you can see in table 8.3.a: Evaluation, there were insufficient samples to understand the association between the two groups regarding the combined literacy and numeracy standards. However, from the risk ratio, we can say that, if a child does not attend school, they are 0.97 times less likely to be able to meet both the literacy and numeracy standards. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

The hypothesis is that, if the children attend school and are not absent *(from school)*, it is more likely that they meet the literacy and numeracy standards of grade 3. Based on the test of association shown in the previous tables, we did not find any association that supports this hypothesis. This is probably due to the fact that we had only one child that was absent in the merged Database.

Research Question 9: How does timely entry into grade 1 affect the ability to pass the assessment?

The hypothesis is that, if a child enters school at an adequate age, it is more likely they will meet the third-grade standards of literacy, numeracy and literacy and numeracy.

Graphic 9: Relationship Between Timely Entry Into Grade 1 And The Child's Ability To Meet Grade 3 Standards



The hypothesis is clearly proven in graphic 9, as it is evident that the proportion of children that entered school at the correct age in the Baseline is 38 percentage points higher and in the Final Assessment 7 percentage points higher in meeting grade 3 literacy standards, in comparison with the children that did not enter school at a correct age. Nonetheless, the difference in both groups is very small for numeracy and for literacy and numeracy.

Table 9.1: Association Between Timely Grade 1 Entry And The Child's Ability To Pass Grade 3 Literacy Standards

Table 9.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	9.2540	2.6857	31.8854 (T)

As evident in table 9.1.a: Baseline, the children that entered grade 1 on time are 9 times more likely to meet the literacy standards for grade 3 in comparison with the children that did not enter school on time. Given that the scope of confidence intervals is greater than 5%, the finding is not statistically significant.

Table 9.1.a: Evaluation

	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.4916	0.9573	2.3239 (T)

As evident in table 9.1.a: Evaluation, the children that entered grade 1 on time are 1.4 times more likely to meet the literacy standards of grade 3 in comparison with the children that did not enter grade 1 on time. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 9.2: Association Between Timely Grade 1 Entry And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 9.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.6071	0.1065	3.4600 (T)

As evident in table 9.2.a: Baseline, the children that did enter grade 1 on time are 60% as likely to meet the numeracy standards of grade 3 in comparison with the children that did not enter grade 1 on time. The finding is not statistically significant, as the confidence interval crosses over one.

Table 9.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.6305	0.3112	1.2773 (T)

As evident in table 9.2.a: Evaluation, the children that did enter grade 1 on time are 63% as likely to meet the numeracy standards of grade 3 in comparison with the children that did not enter school on time. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 9.3: Association Between Timely Grade 1 Entry And The Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 9.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.2982	0.0405	2.1973 (T)

As evident in table 9.3.a: Baseline, the children that did enter grade 1 on time are 29.8% as likely to meet the requirements of grade 3, both in literacy and in numeracy, than the children that did not enter school on time. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 9.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.7504	0.2686	2.0962 (T)

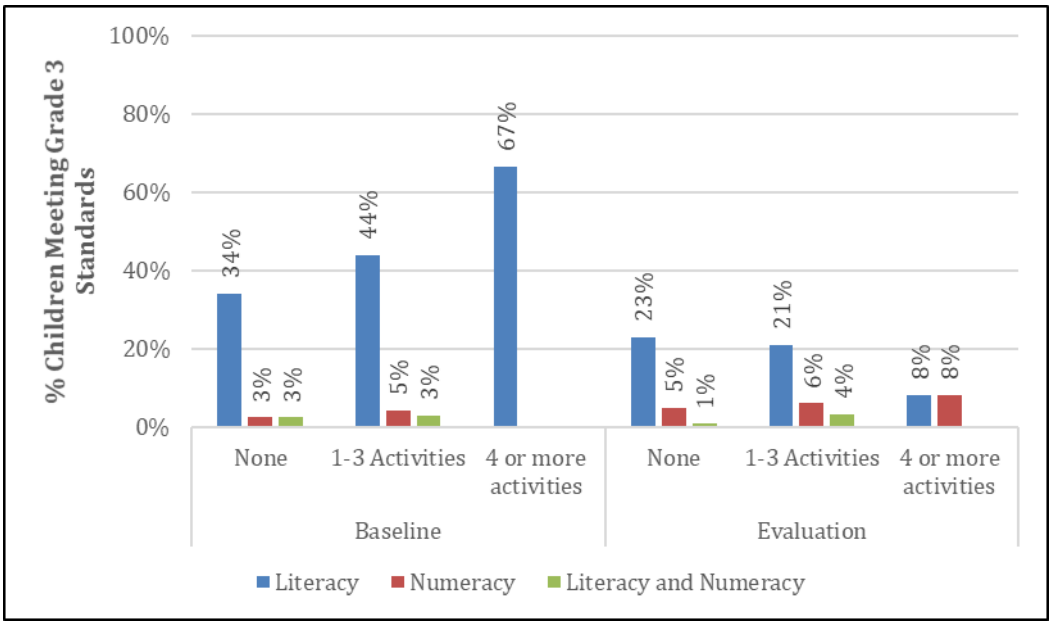
As we can observe in table 9.3.a: Evaluation, the children that did enter grade 1 on time are 75% as likely to meet the requirements of grade 3, both in literacy and in numeracy, than the children that did not enter school on time. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

The hypothesis is that, if the children enter school on time, it is more likely that they will meet the literacy and numeracy standards of third grade. Based on the test of association shown in the previous tables, we can conclude that in the Baseline and Final Assessment there is a strong association between the children aged 9 years old that enter school on time and their capacity to meet the grade 3 literacy standards. However, there is an inverse association for numeracy and the combined standards of literacy and numeracy.

Research Question 10: Does having caregivers of children aged 7-15 years old engage in learning activities influence a child meeting literacy and numeracy standards?

The hypothesis is that, the more learning activities a caregiver engages in, the greater the likelihood that the child meets the literacy, numeracy and literacy and numeracy standards of third grade.

Graphic 10: Relationship Between The Caregiver Engaged In Learning Activities And The Child's Ability To Meet Grade 3 Standards



It is evident in graphic 10 that in the Baseline only 34% of the children meet the literacy standards if their caregiver is not engaged in any activity, later on the proportion increases to 44% if the caregiver engages in one to three activities, and to 67% if the caregiver engages in four or more activities. There is some difference for numeracy and for literacy and numeracy; however, the proportion of those children in the sample is too small.

The hypothesis is not evident in the Final Assessment where 23% of the children meet the literacy standards if their caregiver does not engage in any activity, then the proportion decreases to 21% if the caregiver engages in one to three activities and continues to decrease to 8% if the caregiver engages in four or more activities. The subject of numeracy and literacy and literacy and numeracy combined observed slight increases between one and 2 percentage points for numeracy and 3 percentage points for the combination of literacy and numeracy.

Table 10.1: Association Between The Caregiver's Engagement In Learning Activities And The Child's Ability To Pass Grade 3 Literacy Standards

Table 10.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.5688	0.6902	3.5659 (T)

It is evident in table 10.1.a: Baseline, that the children whose caregiver engages in a learning activity are 1.5 times more likely to meet the literacy standards in comparison with the children whose caregiver does not engage in any activity. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 10.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	0.8434	0.4952	1.4366 (T)

In table 10.1.a: Evaluation, we observe that the children whose caregiver engages in a learning activity are 0.84 times as likely to meet the literacy standards in comparison with the children whose caregiver does not engage in any activity. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 10.2: Association Between The Caregiver's Engagement In Learning Activities And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 10.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.6818	0.1688	16.7535 (T)

It is evident in table 10.2.a: Baseline, that the children whose caregiver engages in a learning activity are 1.6 times more likely to meet the numeracy standards in comparison with the children whose caregiver does not engage in any activity. The finding is not statistically significant, as the confidence interval crosses over one.

Table 10.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.2869	0.4764	3.4766 (T)

We observe in table 10.2.a: Evaluation, that the children whose caregiver engages in a learning activity are 1.2 times more likely to meet the numeracy standards in comparison with the children whose caregiver does not engage in any activity. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 10.3: Association Between The Caregiver's Engagement In Learning Activities And The Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 10.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.1045	0.0969	12.5939 (T)

It is evident in table 10.3.a: Baseline, that the children whose caregiver engages in a learning activity are 1.1 times more likely to meet the literacy and numeracy standards in comparison with the children whose caregiver does not engage in any activity. The finding is not statistically significant, as the confidence interval crosses over one.

Table 10.3.a: Evaluation

	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	3.3890	0.4353	26.3869 (T)

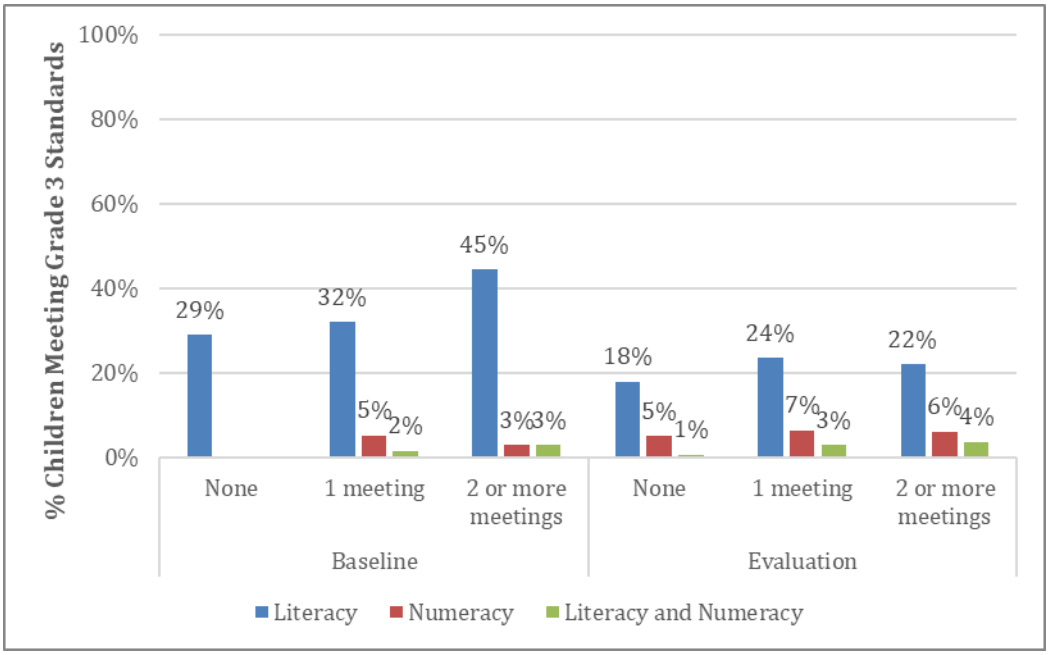
The table 10.3.a: Evaluation, shows that the children whose caregiver engages in a learning activity are 3.3 times more likely to meet the literacy and numeracy standards in comparison with the children whose caregiver does not engage in any activity. The finding is not statistically significant, as the confidence interval crosses over one.

Based on the test of association shown in the previous tables, we can conclude that there is a moderate association between the children whose caregiver engages in a learning activity and their capacity to meet the third-grade literacy, numeracy and combined standards of numeracy and literacy.

Research Question 11: Does having caregivers of children 7-15 years old regularly meet with teachers influence a child meeting literacy and numeracy standards?

The hypothesis is that, the more times a caregiver meets with the teacher, the greater the likelihood that the child meet the third-grade standards of literacy, numeracy and literacy and numeracy.

Graphic 11: Relationship Between Caregivers Regularly Meeting With Teachers And The Child's Ability To Meet Grade 3 Standards



Graphic 11 shows a difference of 3 percentage points in the Baseline between the children that could meet the literacy standards between the caregivers that never met with the teacher and those that met once; this value increases 12 percentage points, obtaining that 45% of the children could meet the literacy standards when a caregiver met with the teacher two or more times. The proportion of children that meet the numeracy and literacy and numeracy is significantly low in the three categories.

In the Final Assessment there is a difference of 6 percentage points in the children that could meet the literacy standards between caregivers that never met with the teacher and those that met once; however, the value decreases 3 percentage points, situating itself at 22% of the children that can meet the literacy standards when the caregiver meets twice or more with the teacher. We also observe that the proportion of children that meet the numeracy and the combined standard of literacy and numeracy is significantly low in the three categories.

Table 11.1: Association Between Caregivers Meeting With Teachers And The Child's Ability To Pass Grade 3 Literacy Standards

Table 11.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.5425	0.5947	4.0008 (T)

It is evident in the table 11.1.a: Baseline, that the children whose caregivers meet with the teacher are 1.5 times more likely to meet the literacy standards in comparison with the children whose caregivers never met with the teachers. The finding is not statistically significant, as the confidence interval crosses over one.

Table 11.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.3544	0.8030	2.2845 (T)

It is evident in the table 11.1.a: Evaluation, that the children whose caregivers meet with the teacher are 1.3 times more likely to meet the literacy standards in comparison with the children whose caregivers never met with the teachers. The finding is not statistically significant, as the confidence interval crosses over one.

Table 11.2: Association Between Caregivers Meeting With Teachers And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 11.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	Undefined	Undefined	Undefined (T)
Risk Ratio (RR)	1.0431	1.0052	1.0824 (T)

As we can see in the table 11.2.a: Baseline, there are insufficient samples to understand the association between the two groups regarding the standards of numeracy. From the risk ratio, it is clear that there is no difference between the two groups and both the groups of children whose caregivers meet with the teachers as those who do not meet with the teacher have the same risk of not meeting the third-grade numeracy standards.

Table 11.2.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.2644	0.5107	3.1303 (T)

It is evident in the table 11.2.a: Evaluation, that the children whose caregivers meet with the teacher are 1.2 times more likely to meet the numeracy standards in comparison with the children whose caregivers never met with the teachers. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 11.3: Association between caregiver's meeting with teachers and the child's ability to pass grade 3 literacy and numeracy standards

Table 11.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	Undefined	Undefined	Undefined (T)
Risk Ratio (RR)	1.0254	0.9967	1.0550 (T)

As we can see in the table 11.3.a: Baseline, there are insufficient samples to understand the association between the two groups regarding the levels of literacy and numeracy. From the risk ratio, it is clear that there is no difference between the two groups and both the group of children whose caregiver meets with the teachers as those who do not meet with the teachers have the same risk of not meeting the third-grade literacy and numeracy standards.

Table 11.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper

PARAMETERS: Odds-based			
Odds Ratio (cross product)	4.1169	0.5381	31.4966 (T)

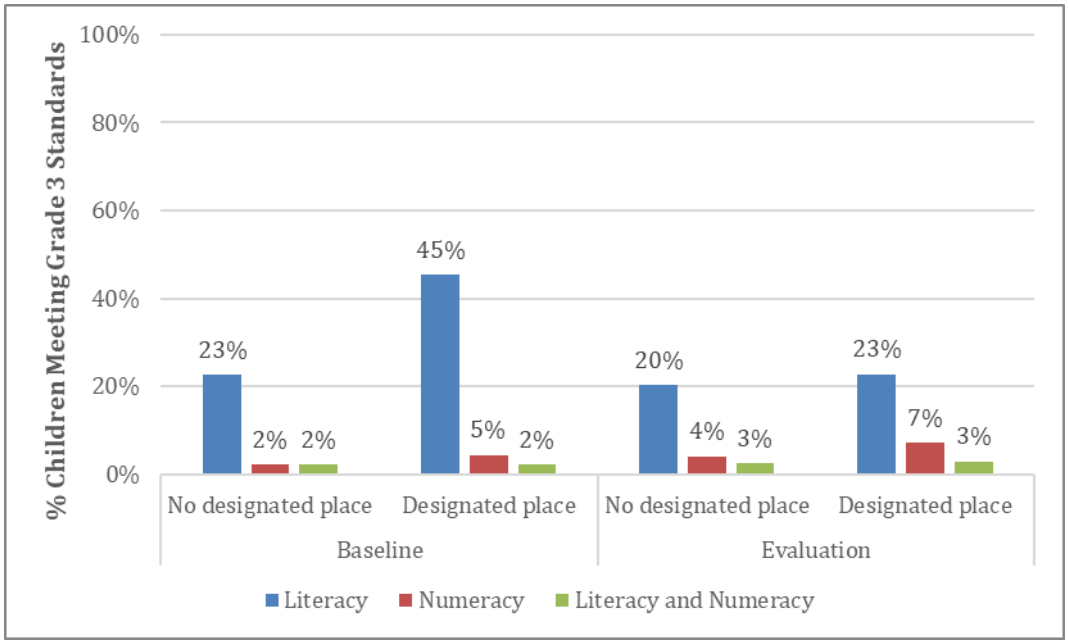
It is evident in the table 11.3.a: Evaluation, that the children whose caregivers meet with the teacher are 4.1 times more likely to meet the numeracy standards in comparison with the children whose caregivers never met with the teachers. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

The hypothesis is that the children aged 9 years old whose caregivers meet regularly with the teachers are more likely to meet the third-grade literacy numeracy standards. However, from the test of association we find that the children of both groups, i.e., those whose caregivers meet regularly with the teachers and those whose caregivers do not meet regularly with the teachers, have the have the same likelihood in meeting the standards of literacy, numeracy and literacy and numeracy.

Research Question 12: Does having caregivers of children aged 7-15 years old provide a specific place for study influence a child meeting literacy and numeracy standards?

The hypothesis is that, if a specific place for study is given to a child, the more likely it is that the child meets the third-grade standards of literacy, numeracy and literacy and numeracy.

Graph 12: Relationship Between The Caregiver Providing A Specific Place For Study And The Child's Ability To Meet Grade 3 Standards



In graphic 12 it is evident in the Baseline that 45% of the children whose caregivers gave them a designated place for study met the literacy standards, in comparison with 23% of the children whose caregivers did not give them any designated place for study. The proportion of children that meet the numeracy standards increased 3 percentage points and the proportion of children who meet the literacy and numeracy standards remained unchanged.

In the Final Assessment we observe that 23% of the children whose caregivers gave them a designated place for study met the literacy standards, in comparison with 20% of the children whose caregivers did not give them any designated place for study. The proportion of children that meet the numeracy standards increased 3 percentage points and the proportion of children who meet the literacy and numeracy standards remained unchanged, all the parameters remain significantly low in both groups.

Table 12.1: Association Between Caregivers Providing A Specific Space For The Child For Study And The Child's Ability To Pass Grade 3 Literacy Standards

Table 12.1.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.5114	1.1279	5.5918 (T)

As shown in the table 12.1.a: Baseline, the children aged 9 years old whose caregivers give them a designated place for study are 2.5 times more likely to meet the grade 3 literacy standards in comparison with the children whose caregivers did not give them any designated place for study. The finding is not statistically significant, as the breadth of the confidence interval is less than 5%.

Table 12.1.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.2136	0.7903	1.8636 (T)

As shown in the table 12.1.a: Evaluation, the children aged 9 years old whose caregivers give them a designated place for study are 1.2 times more likely to meet the literacy standards for grade 3 in comparison with the children whose caregivers did not give them any designated place for study. The finding is not statistically significant in the Final Assessment, the confidence interval crosses over one.

Table 12.2: Association Between Caregivers Providing A Specific Space For The Child For Study And The Child's Ability To Pass Grade 3 Numeracy Standards

Table 12.2.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	2.1205	0.2299	19.5556 (T)

As shown in the table 12.2.a: Baseline, the children aged 9 years old whose caregivers give them a designated place for study are twice as likely to meet the numeracy standards for grade 3 in comparison with the children whose caregivers did not give them any designated place for study. The finding is not statistically significant in the Baseline the confidence interval crosses over one.

Table 12.2.a: Evaluation		
	Point	95% Confidence Interval

	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.8628	0.8266	4.1978 (T)

As shown in the table 12.2.a: Evaluation, the children aged 9 years old whose caregivers give them a designated place for study are 1.8 times more likely to meet the numeracy standards for grade 3 in comparison with the children whose caregivers did not give them any designated place for study. The finding is not statistically significant in the Final Assessment, as the confidence interval crosses over one.

Table 12.3: Association Between Caregivers Providing Study Specific Space For The Child And The Child's Ability To Pass Grade 3 Literacy And Numeracy Standards

Table 12.3.a: Baseline			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.0353	0.0913	11.7356 (T)

As shown in the table 12.3.a: Baseline, the children aged 9 years old whose caregivers give them a designated place for study are 1.03 times more likely to meet the literacy and numeracy standards for grade 3 than the children whose caregivers did not give them any designated place for study. The finding is not statistically significant in the Baseline, as the confidence interval crosses over one.

Table 12.3.a: Evaluation			
	Point	95% Confidence Interval	
	Estimate	Lower	Upper
PARAMETERS: Odds-based			
Odds Ratio (cross product)	1.2251	0.4194	3.5782 (T)

As shown in the table 12.3.a: Evaluation, the children aged 9 years old whose caregivers give them a designated place for study are 1.2 times more likely to meet the literacy and numeracy standards for grade 3 than the children whose caregivers did not give them any designated place

for study. The finding is not statistically significant in the Evaluation, as the confidence interval crosses over one.

The hypothesis is that the children aged 9 years whose caregivers give them a designated place for study are more likely to meet the standards of literacy, numeracy and literacy and numeracy in grade 3. Based on the test of association shown in the previous tables, we can conclude that, in the Baseline and Final Assessment, there is an association between the children aged 9 years whose caregivers give them a designated place for study and their capacity to meet the third-grade standards of literacy, numeracy and the combined standard of literacy and numeracy. This association was observed most significantly for meeting Literacy standards at the baseline. While there may also be a strong association with achieving Numeracy standards, as suggested by the evaluation results, this association was not statistically significant.

SUMMARY OF CLA ANALYSIS AND RECOMMENDATIONS FOR EDUCATION PROGRAMMING

Baseline							
Summary Table 1.a: Logistic Regression to determine association between the ability of children aged 9 meeting grade 3 standards for literacy and different interventions							
Term	Odds Ratio	0.95	C.I.	Coefficient	S.E.	Z-Statistic	P-Value
Preschool Attendance (Yes/No)	0.0383	0.0002	7.0580	-3.2624	2.6616	-1.2258	0.2203
Grade Requirements (Yes/No)	0.1554	0.0050	4.8455	-1.8620	1.7552	-1.0609	0.2887
Out-of-school Learning (Yes/No)	5.3295	0.3537	80.3080	1.6733	1.3840	1.2090	0.2267
Reading Environment (Yes/No)	0.5291	0.0518	5.4084	-0.6367	1.1861	-0.5368	0.5914
On-Time Grade 1 Entry (Yes/No)	3.6454	0.0205	649.6033	1.2935	2.6444	0.4891	0.6247
Learning Activities (Yes/No)	12.0655	0.9032	161.1765	2.4903	1.3226	1.8830	0.0597
Designated Place for Study (Yes/No)	2.9883	0.1904	46.9123	1.0947	1.4049	0.7792	0.4359

From table 1.a of the summary, we can conclude that, in the Baseline, the learning activities in the home will probably have the strongest residual effect in literacy, to promote that the caregivers engage regularly in learning activities will probably have 12 times the residual effect in the children that meet the literacy standards, in comparison to other interventions. The next greatest residual effect is that of the children that engage in out-of-school activities, i.e., it is 5.3 times more likely that the children that participate in out-of-school activities can meet the literacy standards, in comparison to other interventions. Thirdly comes a timely entry to grade 1, to promote the timely entry into grade 1 will probably have 3.6 more times the residual effect in the children that meet the literacy standards, in comparison to other interventions. Finally, that the caregiver gives the child a designated space for study will also have an important residual effect of 2.98, i.e., when the caregiver gives the child a designated space for study; it is 2.9 times more likely that the children will meet the literacy standards than other interventions.

Evaluation							
Summary Table 1.a: Logistic Regression to determine association between the ability of children aged 9 meeting grade 3 standards for literacy and different interventions							
Term	**Odds Ratio**	**0.95**	**C.I.**	**Coefficient**	**S.E.**	**Z-Statistic**	**P-Value**
Preschool Attendance (Yes/No)	0.5298	0.1294	2.1688	-0.6353	0.7191	-0.8834	0.3770
Grade Requirements (Yes/No)	1.6650	0.5513	5.0283	0.5098	0.5639	0.9041	0.3659
Out-of-school Learning (Yes/No)	1.0551	0.3266	3.4090	0.0537	0.5984	0.0897	0.9285
Reading Environment (Yes/No)	1.2933	0.4313	3.8785	0.2572	0.5603	0.4591	0.6462
On-Time Grade 1 Entry (Yes/No)	0.8799	0.3215	2.4079	-0.1280	0.5136	-0.2492	0.8032
Learning Activities (Yes/No)	0.3337	0.1114	0.9996	-1.0975	0.5597	-1.9607	0.0499
Meeting with Teachers (Yes/No)	1.0268	0.3269	3.2250	0.0264	0.5839	0.0453	0.9639
Designated Place for Study (Yes/No)	0.5318	0.1844	1.5337	-0.6314	0.5404	-1.1685	0.2426

From the previous table 1.a, we can conclude that, in the Final Assessment, the knowledge of the caregiver about the grade requirements will have the greatest residual effect in literacy; we observe that it will have 1.6 times the residual effect in the children that meet the literacy standards, in comparison to other interventions. The next residual effect is the supportive reading environment, which means that it is 1.2 more likely that the children that have a supportive reading environment can meet the literacy standards, in comparison to other interventions. Thirdly, we have the children's engagement in out-of-school activities that stands out, i.e., it is 1.05 times more likely that children that engage in out-of-school activities can meet the literacy standards, in comparison to other interventions. Finally, the caregiver meeting with the teachers increases the child's capacity to meet the third-grade literacy standards, i.e., that these meetings allow for 1.02 times more likelihood that the children can meet the literacy standards than other interventions.

Baseline							
Summary Table 2.a: Association between the ability of children aged 9 meeting grade 3 standards for numeracy and different interventions							
Term	**Odds Ratio**	**0.95**	**C.I.**	**Coefficient**	**S.E.**	**Z-Statistic**	**P-Value**
Preschool Attendance (Yes/No)	0.2117	0.0390	1.1497	-1.5526	0.8633	-1.7983	0.0721
Grade Requirements (Yes/No)	0.1583	0.0148	1.6927	-1.8433	1.2090	-1.5247	0.1273
Reading Environment (Yes/No)	1.3071	0.1971	8.6699	0.2678	0.9653	0.2775	0.7814
On-Time Grade 1 Entry (Yes/No)	0.7874	0.1016	6.1048	-0.2390	1.0450	-0.2287	0.8191
Learning Activities (Yes/No)	0.4576	0.0958	2.1857	-0.7818	0.7978	-0.9799	0.3271
Designated Place for Study (Yes/No)	0.5913	0.0973	3.5948	-0.5254	0.9209	-0.5705	0.5683

In the previous summary table 2.a, we observe that, in the Baseline, only the caregivers that support a reading environment have the strongest residual effect in comparison to the other interventions in the regression model to meet the numeracy standards. It is 1.3 times more likely that the children whose caregivers support a reading environment can meet the numeracy standards, in comparison to other interventions.

Evaluation							
Summary Table 2.a: Association between the ability of children aged 9 meeting grade 3 standards for numeracy and different interventions							
Term	**Odds Ratio**	**0.95**	**C.I.**	**Coefficient**	**S.E.**	**Z-Statistic**	**P-Value**
Preschool Attendance (Yes/No)	0.3279	0.1525	0.7047	-1.1151	0.3904	-2.8563	0.0043
Grade Requirements (Yes/No)	0.5296	0.2516	1.1150	-0.6356	0.3798	-1.6735	0.0942
Reading Environment (Yes/No)	1.6461	0.7357	3.6830	0.4984	0.4109	1.2130	0.2251
On-Time Grade 1 Entry (Yes/No)	0.2696	0.1361	0.5340	-1.3108	0.3487	-3.7592	0.0002
Learning Activities (Yes/No)	0.5574	0.2721	1.1416	-0.5845	0.3658	-1.5978	0.1101
Meeting with Teachers (Yes/No)	0.4605	0.2207	0.9607	-0.7755	0.3752	-2.0668	0.0388
Designated Place for Study (Yes/No)	1.6280	0.7277	3.6420	0.4873	0.4108	1.1863	0.2355

In the previous summary table 2.a, we observe that, in the Final Assessment, the caregivers that support a reading environment have the strongest residual effect in comparison to the other interventions in the regression model to meet the numeracy standards. It is 1.64 times more likely that the children whose caregivers support a reading environment can meet the numeracy standards, in comparison to other interventions. In second place we have a caregiver that provides a designated place for study; it is 1.62 times more likely that the children can meet the numeracy standards than other interventions.

Baseline							
Summary Table 3.a: Association between the ability of children aged 9 meeting grade 3 standards for literacy and numeracy and different interventions							
Term	**Odds Ratio**	**0.95**	**C.I.**	**Coefficient**	**S.E.**	**Z-Statistic**	**P-Value**
Preschool Attendance (Yes/No)	0.3656	0.0424	3.1506	-1.0063	1.0989	-0.9157	0.3598
Grade Requirements (Yes/No)	0.0000	0.0000	>1.0E12	-14.1098	244.5862	-0.0577	0.9540

Reading Environment (Yes/No)	4.8600	0.3655	64.6151	1.5810	1.3201	1.1976	0.2311
Learning Activities (Yes/No)	0.5247	0.0691	3.9839	-0.6450	1.0343	-0.6236	0.5329
Meeting with Teachers (Yes/No)	0.1947	0.0127	2.9944	-1.6360	1.3943	-1.1734	0.2406
Designated Place for Study (Yes/No)	0.5487	0.0637	4.7267	-0.6003	1.0988	-0.5463	0.5848

In the previous summary table 3.a, we observe that, in the Baseline, only the caregivers that support a reading environment have the strongest residual effect in comparison to the other interventions in the regression model to meet the combined standards of literacy and numeracy. It is 4.8 times more likely that the children whose caregivers support a reading environment can meet the standards of numeracy, in comparison to other interventions.

Evaluation							
Summary Table 3.a: Association between the ability of children aged 9 meeting grade 3 standards for literacy and numeracy and different interventions							
Term	**Odds Ratio**	**0.95**	**C.I.**	**Coefficient**	**S.E.**	**Z-Statistic**	**P-Value**
Preschool Attendance (Yes/No)	0.2130	0.0807	0.5622	-1.5464	0.4951	-3.1232	0.0018
Grade Requirements (Yes/No)	0.5660	0.2059	1.5556	-0.5692	0.5159	-1.1034	0.2699
Reading Environment (Yes/No)	1.8018	0.6027	5.3872	0.5888	0.5588	1.0537	0.2920
On-Time Grade 1 Entry (Yes/No)	0.2073	0.0825	0.5211	-1.5736	0.4703	-3.3461	0.0008
Learning Activities (Yes/No)	0.5085	0.2015	1.2834	-0.6763	0.4724	-1.4318	0.1522
Meeting with Teachers (Yes/No)	0.6270	0.2395	1.6412	-0.4669	0.4910	-0.9509	0.3416
Designated Place for Study (Yes/No)	0.7082	0.2605	1.9254	-0.3451	0.5103	-0.6762	0.4989

In the previous summary table 3.a, we also observe that, in the Final Assessment, only the caregivers that support a reading environment have the strongest residual effect in comparison

to the other interventions in the regression model to meet the combined standards of literacy and numeracy. It is 1.8 times more likely that the children whose caregivers support a reading environment can meet the standards of numeracy, in comparison to other interventions.

VII. CONCLUSIONS, RECOMMENDATIONS AND NEXT STEPS FOR ACTION

6.1 Conclusions

Of the total of children aged 5.6 to 6.5 years that were assessed with IDELA, the mastering of skills increased 2.4 percentage points, arriving at 18.1%; the largest increase was in the social emotional mastery that went up from the emergent category to the mastery with 3.76 percentage points.

The total score obtained in IDELA went down 2.6 percentage points on a national level; this tells us that the children are not fully prepared to have a successful performance in grade 1 on a national level, even though there has been a slight increase of children that have passed from the emergent category to the mastery in the social emotional area; the rest of the development domains had a slight decrease in all of the Area Programs.

The timely enrollment into preschool increased significantly in all the Are Programs; this is due to the fact that in Bolivia, preschool education is compulsory from the age of 4.

The Rural Area Programs show an increase in the average of attendance days in school, whereas the Peri-urban Areas show a decrease. One of the key factors was the pandemic; despite the school closures on a national level, the parents of the children in the rural intervention areas demanded in-school teaching and thus sent their children without fail.

The percentage of caregivers of children in grades 1 to 3 that have reviewed their children's homework increased 58.7% on a national level, finalizing at 86.5% on a national level; this is likely an effect of the quarantine where the parents were more able to review their children's homework at home.

The Assessment made evident that the caregivers have the knowledge and could name three things that their children need to know in order to pass the grade; this data was statistically significant.

The percentage of children at the nationally recommended age for finishing grade 3, that have met the literacy and numeracy standards, has decreased 5 percentage points, i.e., only 2.5% of the children aged 9 years old are capable of meeting the third-grade literacy and numeracy standards; i.e., that 97.5% of the population of children that did the test could not meet the expected standards for literacy and numeracy. This is a reflection of the pandemic, Bolivia being the second country worldwide to have the longest school closure due to covid 19. Between the Baseline done in July 2019 and the Final Assessment done in March 2022, the schools were closed due to the covid 19 pandemic, for almost 2 *full* school years 2020 and 2021. The loss of learning is reflected in the obtained results, and if we do not act urgently there can be serious and lasting effects for an entire generation, just as the primary and secondary sources in the country warn.

Even though the developed strategies in the Education Project involve caregivers and teachers, those who make decisions in the lives of the children and contribute to the calling of FH Bolivia, it is necessary to strengthen the strategies, to expand coverage and to improve the investment per beneficiary, which until now is $1.5 per month.

6.2 Recommendations

- IDELA measures Early Learning Performance and School Readiness of children from 3.5 to 6.5 years of age; However, in the current educational programming there are no interventions with adults or with children under 4 years of age, for which it is recommended to develop the strategy of Child Stimulation aimed at caregivers with children from 0 to 3 years of age with an emphasis on stress reduction. toxic, because the results show us that the strategies to protect the child from situations of toxic stress decreased at the national level; also motivate caregivers to enroll their children in preschool on time and delivery of children's books according to the child's age, due to the influence that both have on the IDELA score, and CLA according to the cross analysis. The cross analysis reflects that the children that have more than 3 books achieve a significantly higher IDELA score than those who do not have books; therefore, in our Education Interventions we must include the access and availability to books at home.

- The cross analysis reflects that the children that have more than 3 books achieve a significantly higher IDELA score than those who do not have books; therefore, in our Education Interventions we must include the access and availability to books at home.

- In the educational evaluation it is observed that if the caregiver has the knowledge of 1-2 reference points, the percentage points increase the proportion of children who can meet the literacy requirements of grade 3; therefore, it is recommended that the learning goals sessions be continued and strengthened with activities and strategies so that the caregiver remembers and knows the grade requirements to support their child in reaching them.

- Based on the cross analysis, caregivers who support the reading environment have the strongest residual effect compared to other interventions in the regression model for meeting combined literacy and numeracy standards. Therefore, it is recommended to develop an innovative strategy for a supportive reading environment with the delivery of books to the families, encouraging reading at home with the engagement of the members and children of the home and involving the teachers.

- One finding in the cross analysis is that the caregiver meeting with the teachers increases the child's ability to pass the third grade literacy standards, therefore it is recommended to implement some strategy to encourage the caregivers to meet with the teachers.

- From the risk ratio, in the cross analysis, it is likely that if children do not participate in activities outside of school, they will not be able to meet literacy and numeracy standards.Therefore, it is recommended to strengthen or develop places of learning outside of the schools where the children increase their learning (libraries, kids clubs or others).

- The cross-analysis shows us that the caregiver who provides a designated space is 2.9 times more likely that children can meet the literacy standards than other interventions, therefore, in the interventions with the caregivers, it is necessary and important to do something so that the caregiver can designate a place for the child to do homework.

- Apart from working with caregivers, as has been done, and based on the results obtained in IDELA and CLA, it is recommended to continue strengthening the capacities of teachers in the first three grades in teacher training in teaching strategies for reading

and writing and arithmetic and with preschool teachers with activities in the classroom for social, emotional, physical development, reading and emergent math.

6.3 Next Steps for Action

To minimize the effects of the covid 19 pandemic on education, evidenced in the results of the educational evaluation, the following educational strategies will be carried out, which are detailed below.

- Educational sessions on Positive criance aimed at caregivers of children.
- Support with scholarships for children and adolescents in order to promote the continuity of their learning and avoid dropping out of school.
- Complementing the work with the caregivers, we will start interventions with the children's preschool teacher to work on the integral development of the child, especially the social emotional development and emergent literacy in the 5 Area Programs.
- We will distribute books to the caregivers that have been trained in "Getting Ready for School" to support the development of emergent literacy from home for their children.
- We will continue with visits to the home of the caregivers to follow up on the commitments of behavior change and spiritual strengthening.
- To improve the percentage of children that have met the literacy and numeracy standards at the end of third grade, we will continue with the interventions with the caregivers and teachers of the first three grades in the 5 Area Programs.
- We will do/share the results of the assessment with the educational authorities, teachers and caregivers in the information and planning meetings before the begin of the school year.
- We will host educational sessions with the caregivers of children that are in the first three school grade with the Module 2 of Education Success in the grade.
- We will host workshops for the teachers to strengthen their teaching competencies to improve literacy and numeracy in the children.

- Based on the evidence and the cross analysis of the Assessment, we will incorporate the strategy of “the traveling book” with the purpose of encouraging a supportive reading environment in addition to the endowment of books to children in the first three grades.
- To improve the knowledge of the caregiver about the grade requirements, we will host training sessions on the methodology of teaching and experiential learning based on principles.
- We will strengthen community places of learning, such as community libraries, kids’ clubs and other learning environments outside of school.
- We will put together kids’ clubs with children aged 6 to 10 years with the purpose of developing the abilities that God gave them and strengthen numeracy and literacy abilities in 5 Area Programs.
- We will strengthen the designated spaces through the caregivers in the home for the children to do homework.

7. ANNEXES

Source: Photo taken from IDELA assessment in the Rural Cochabamba area program.

Source: Photo taken from IDELA assessment in the Rural Cochabamba area program.

Source: Photo taken from IDELA assessment in the Peri-urban Cochabamba area program.

Source: Photo taken from IDELA assessment in the Peri-urban Cochabamba area program.

Source: Photo taken from IDELA assessment in the Peri-urban Sucre area program.

Source: Photo taken from IDELA assessment in the Rural Cochabamba area program.

Source: Photo taken from CAREGIVER assessment in the Rural Cochabamba area program.

Source: Photo taken from CAREGIVER assessment in the Peri-urban El Alto area program.

Source: Photo taken from CLA assessment in the Rural Sucre area program.

Source: Photo taken from CLA assessment in the Peri-urban Cochabamba area program.

Source: Photo taken from CLA assessment in the Rural Cochabamba area program.