

Boromi

Impact Evaluation Report 2021 – 2023

August 2023



Contents

1. Introduction	7
2. Methodology	8
Research Questions.....	9
Outcome Measures.....	9
Evaluation Design	10
Limitations	13
3. Outcomes.....	15
Outcomes for children.....	15
Outcomes for parents	23
4. Summary.....	38
5. Recommendations.....	39
6. Glossary	41

Executive Summary

About Boromi

Boromi are building a national network of Play Libraries®. In partnership with educational and community settings, Boromi are working to empower every parent to support and nurture their child's early development through positive and purposeful play and talk, together. Boromi have identified the importance of a child's first few years and their development over this time as critical for future health, happiness and success. However, they attest that the early years is systemically undervalued, under-prioritised and under-funded as a sector and as a developmental stage. Access for parents of 0-5's to free, community level support is not equitable or fit for purpose. For those without the means to afford private support, parents have fewer opportunities and capacity to build the awareness, knowledge and skills to nurture the early development of their children. As a result, children can experience fewer positive and developmentally rich interactions and opportunities to learn, negatively impacting their development of fundamental foundations they need to reach their full potential.

Through their network of free, borrowable Play Libraries, Boromi is working to address this problem and help every child to regularly experience positive and playful interactions with their caregiver in the first five years of their life, enabling them to develop the foundations they need to thrive and reach their potential.

Within a school context, a Play Library provides a family with a range of termly play bags that are free to borrow, take home and explore together. Each bag provides a modelled activity, all the resources required and parent handbook. This report provides an assessment of the impact of this school Play Libraries programme over 2021-2023 drawing upon quantitative and qualitative work carried out by Boromi and ImpactEd with parents and teachers involved in the programme in the academic years 2021/22 and 2022/23. The findings of this report can be used to steer improvements to both the design and delivery of Boromi's programme in future years.

Headline Findings

Outcomes for children

1

Children experienced an average of **23 percentage-points change from baseline to final in 2021/22** and **25 percentage-points change in 2022/23** in their communication skills. This change in scores was statistically significant showing the changes observed in children's communication, language and oracy were likely an effect of Boromi.

2

There was a statistically significant change ($p < 0.00$) in average scores reported by teachers for children's social and emotional development from baseline to final over the two years **2021-2023**, indicating the positive effect of Boromi's play bags on children's social and emotional development.

3

Discussions in focus groups showed that parents and teachers observed an **improvement in children's resilience and their ability to share with their siblings at home**. This suggests that the children's engagement with the Boromi play bags encouraged the children to share and cooperate more, promoting positive behaviour in their interactions with siblings and peers.

Outcomes for parents

1

During focus groups, parents reported that the play bags **empowered them to actively engage in their child's learning process**. By exploring the bags together and participating in the play activities, parents gained insights into their child's interests and learning preferences. This led them to **devise new play ideas and activities outside of the bags, tailoring learning opportunities to their child's individual needs**.

2

A measurement of the quality of learning made at home through Boromi showed an increase of 0.05 percentage-points change which was a statistically significant ($p < 0.01$) positive change, suggesting **Boromi had a positive impact on the quality of learning activities that parents perform with preschool children**.

3

Teacher feedback surveys reported that **parental accessibility and engagement were positively affected by the programme being offline and largely physical**, where between terms 1 and term 3, teachers showed **an increase of 22.62 percentage-points**. This suggests that over the course of the 2022/23 academic year, teachers increasingly viewed the physical and offline nature of Boromi play bags as offering a positive and accessible activity for parents and their children.

Key Findings

Outcomes for children: **Child communication, language and oracy**

- ◆ **Key Finding 1:** Children experienced an average of 23 percentage-points change from baseline to final in 2021/22 and 25 percentage-points change in 2022/23 in their communication skills. This change in scores was statistically significant showing the changes observed in children's communication, language and oracy were likely an effect of Boromi.
- ◆ **Key Finding 2:** Teachers noted that Boromi has helped to improve children's vocabulary and language skills, both directly through instructions and indirectly by encouraging interactions with parents.

Outcomes for children: **Child social and emotional development**

- ◆ **Key Finding 3:** There was a statistically significant change ($p < 0.00$) in average scores for children's social and emotional development from baseline to final over the two years 2021-2023, indicating the small but positive effect of Boromi play bags on children's social and emotional outcomes.

Outcomes for children: **Child behaviour**

- ◆ **Key Finding 4:** Children with EAL as well as non-EAL children showed a similar minor yet positive improvement in their behaviour at both school and at home, with a 0.03 percentage-point increase across the two years.
- ◆ **Key Finding 5:** Parents and Teachers commented upon an improvement in children's resilience and their ability to share with their siblings at home.

Outcomes for children: **Child engagement and motivation to learn**

- ◆ **Key Finding 6:** Teachers shared how Boromi positively influenced their child's participation, interest, and imagination at home and at school.

Outcomes for parents: **Parent confidence, support, frequency of play and engagement with their child**

- ◆ **Key Finding 7:** Parents reported a 1.25 percentage-point increase in confidence, knowledge and ideas to initiate play-based activities with their child in the 2022/23 survey.
- ◆ **Key Finding 8:** Discussions with parents indicated that parental engagement with their child's learning increased, which in turn seemed to positively impact their agency in devising new play ideas outside of the play bags with their child.

Outcomes for parents: **Home environment**

- ◆ **Key Finding 9:** The change in average scores for the quality of learning activities that parents perform with preschool children from 2021-23 were statistically significant ($p < 0.01$) suggesting Boromi had a positive impact upon this.

Additional measures and data collection: Boromi Domains - parents

- ◆ **Key Finding 10:** Across 2022/23, parents reported a 2.5 percentage-point increase in their child's ability to share.

Additional measures and data collection: Boromi Domains - teachers

- ◆ **Key Finding 11:** Teachers reported that children showed a statistically significant ($p < 0.05$) improvement in all four Boromi domains of Invent, Imagine, Share and Investigate across 2022-2023 indicating the positive impact that the bags had on children's development in these areas.

Additional measures and data collection: Child voice

- ◆ **Key Finding 12:** When asked how playing with the Boromi play bags made them feel, 88% of the children responded with a positive emotion, expressing happiness, confidence and excitement.

Additional measures and data collection: Teacher end of term survey

- ◆ **Key finding 13:** Termly feedback surveys completed by teachers showed an increase of 22.62 percentage-points from term 1 to term 3 when they were asked the extent to which the offline physical accessibility affects parental accessibility and engagement in the programme.

1. Introduction

Boromi provides a national network of freely accessible, high quality and impact-driven Play Libraries that empower families to enjoy more developmentally rich and powerful play and talk together. This report explores the impact of the Termly Play Libraries operating within educational settings. The schools Play Libraries provide free play bags each term for families to borrow, take home and explore together. Play bags equip parents with accessible and scaffolded guidance as well as providing all required resources for their children to immerse themselves in play activities.

The programme evaluated by ImpactEd involved a **mixed-methods approach** to assessing the impact of the programme on parents* and their children. This involved a combination of **adapted validated scales** and **custom surveys**, reported by teachers and parents of the children participating in the evaluation, to measure the outcomes for children and parents identified in the Theory of Change. The surveys, which were quantitative in nature, were complimented by **qualitative focus groups** with families and teachers. In addition, children were asked to answer several simple questions to capture their experiences of engaging with the Boromi play bags. This data was collated and thematically analysed to add an element of child voice to the evaluation.

This report **summarises the quantitative and qualitative data collected between 2021 to 2023 and highlights the key findings** and comparisons for both children and their parents.

* The term 'parent' denotes any individual with care responsibility for their child. This includes grandparents, carers or legal guardians.

2. Methodology

The outcomes measured are shown in the Theory of Change in Figure 1. The outcomes were used to guide the quantitative and qualitative data collection over the two years 2021-2023. Note that the evaluation outlined in this report relates to the Termly Play Libraries strand as highlighted in orange below.

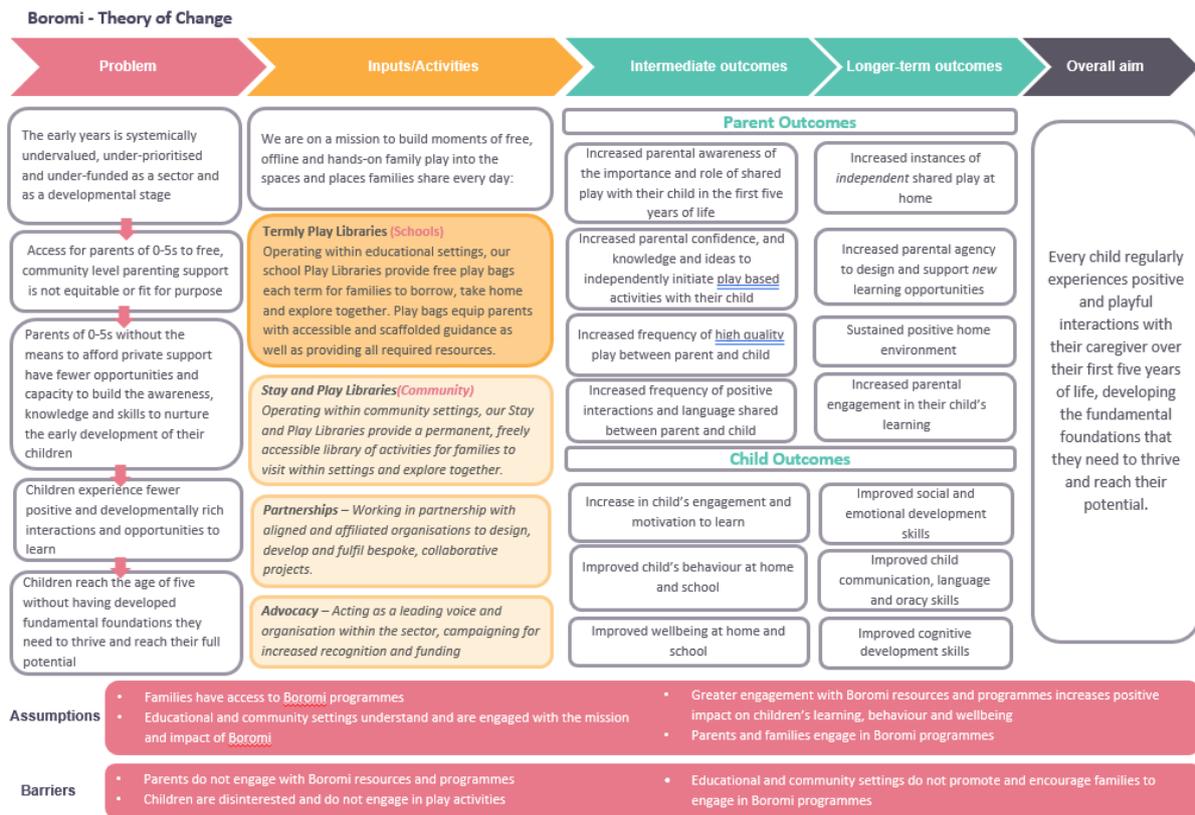


Figure 1: Boromi Theory of Change

Research Questions

The key research questions that guided the evaluation are shown below:

- 1) Does Boromi have an impact on children’s outcomes including their communication, cognitive development, social and emotional skills, behaviour and motivation and engagement?
- 2) Does Boromi increase parental engagement in their child’s learning and their ability to independently initiate high-quality play-based activities with their child?

Outcome Measures

Below is an overview of the measures used to assess the impact of Boromi on the outcomes identified in the Theory of Change.

Stakeholder	Outcome	Measurement	2021-2022	2022-2023
Children	Improved child communication, language and oracy skills	Custom survey statements	✓	✓
	Increased cognitive development skills	Academic progress data from teachers	✓	
	Improved social and emotional skills	Strengths and Difficulties Questionnaire (SDQ)	✓	✓
	Increase in children’s engagement and motivation to learn	Teacher focus group	✓	✓
	Improved child’s behaviour at home and school	Adaptive Social Behaviour Inventory (ASBI)	✓	✓
Parents	Increased parental confidence, knowledge and ideas to initiate play-based activities with their child	Custom Survey	✓	✓
		Focus Group		✓
	Increased parental agency to design and support new learning opportunities	Custom Survey	✓	✓ ✓
		Focus Group		

	Sustained positive home environment	Effective Provision of Pre-School Education (EPPE) and Home Learning Environment (HLE) survey	✓	✓
	Increased parental engagement in their child's learning	Custom Survey	✓	✓
		Focus Group		✓
	Increased frequency of high-quality of play between parent and child	Focus Group	✓	✓

Note that for the 2022/23 academic year, attainment progress data for children was not collected for the evaluation. This was due to a mutually agreed decision that the ask on schools for this data was too high and that investigating outcomes associated with social emotional development was of higher priority.

Evaluation Design

A detailed description of the quantitative and qualitative components of this evaluation is provided below under the children and parent outcomes. In both cycles 2021/22 and 2022/23, ImpactEd led on collecting the qualitative focus group data, while Boromi led on collecting the quantitative survey data.

Child outcomes: design, sample, and analysis

The quantitative measures listed below are reported by a mix of parents and teachers at the start (September/October) and at the end (June/July) of the 2021/22 and 2022/23 academic years. Collecting data at these time points allowed us to analyse the degree of change over the course of the years for each specific outcome.

- ◆ For teacher reported child outcomes, Boromi asked teachers of each class using the play bags to complete a total of 10 surveys on behalf of 10 children.
- ◆ For parent reported child outcomes, Boromi asked all parents in each class to complete the survey on behalf of their child.

Our quantitative analysis compared pre-intervention results to post-intervention results for a total matched sample of 194 teachers and 61 parents over the two years. We looked at the mean difference between pre- and post-intervention responses to each question and then where possible, used a two-tailed paired sample t-test with the conventional social science significance level of $p=0.05$ to determine whether the change observed was statistically significant. We also segmented the data by gender and/or English as an additional language (EAL) for parent reported surveys and gender and/or pupil premium for teacher reported surveys where appropriate. Some of the question sets were analysed separately for 2021/22 and 2022/23 due to further adaptations to the wording or the number of questions in the second year of the project. This will be noted where applicable.

Focus groups with teachers also accompanied the quantitative data to gather additional feedback on children's engagement and motivation to learn as well as focus groups with parents to gather further insight into their confidence and engagement with their child's learning. Our qualitative analysis involved a thematic approach, meaning that we drew out key themes and quotes from the data and organised these into the identified outcomes.

The list below details how each outcome was assessed:

Pupil outcomes

1. Improved child communication, language and oracy skills, and increased cognitive development skills:

Teachers completed a 10-item custom survey on the development of children's language and cognition in 2021/22 and an altered 9-item custom survey in 2022/23. A matched sample of 116 teachers responded to the survey at baseline and endline in 2021-22 and a matched sample of 78 responded to the survey at baseline and endline in 2022-23. The responses from 2021/22 and 2022/23 were analysed separately. This was due to a review of the statements after the first year of the evaluation which led to changes to the wording of statements and the addition and emission of statements for the second year of the evaluation. This data was also complimented through further insights in the qualitative work with teachers. Academic progress data for reading and oracy was also collected at baseline and endline from a matched sample of 116 teachers in the academic year 2021/22. This data was not collected for 2022/23 however, due to a decision to focus more solely on social and emotional outcomes requiring less ask of teachers.

2. Improved social and emotional development skills:

Teachers also completed an adapted version of the 25-item Strengths and Difficulties Questionnaire (SDQ) which is a behaviour screening instrument for children aged 3 to 16 years. A matched sample of 194 teachers responded to the survey at baseline and endline between 2021-2023.

3. Improved child's behaviour at home and school:

Parents completed an adapted version of the Adaptive Social Behaviour Inventory (ASBI) which consists of 30 items in total, and assesses diverse aspects of 3-year-olds' social abilities. This survey gives a good indication of the child's pro-social qualities and related social and emotional skills. A matched sample of 61 parents responded to the survey at baseline and final between 2021-2023. This was complimented through further insights in the qualitative work with teachers and parents. In 2021/22, 5 teachers and 10 parents participated in focus groups: 7 parents participated in an English focus group and 3 parents participated in a focus group conducted in Hindi. In 2022/23 7 parents and 4 teachers participated in English focus groups.

4. Increase in child's engagement and motivation to learn:

Considering the logistics of administering any external assessments with children directly, *focus groups* conducted directly with teachers were run at the end of each academic year, in June 2022 and June 2023 to understand the climate of engagement in learning within their classroom, and how Boromi may have impacted this within each individual child. In total, 9 teachers took part in the focus groups over the course of the two years.

Parent outcomes

5. Increased parental confidence, knowledge, and ideas to initiate play-based activities with their child.
6. Increased parental agency to design and support new learning opportunities.
7. Increased frequency of high-quality play between parent and child.
8. Increased parental engagement in their child's learning.

While no valid measure could be found to measure these constructs exactly as per the purpose defined, they were evaluated by conducting focus groups, as well as custom surveys. Questions for both the custom parent survey and focus groups were completed by parents about their own child. In the first year of the evaluation, parents answered a 10-item custom survey to measure the outcomes above. In 2022/23 the questions were reviewed. From this review, the wording of several statements were adapted, some statements removed, and additional statements were added that were more tailored to the outcomes and the needs of the programme and participants. In 2022/23, parents responded to an 11-item custom survey. Therefore, the responses from 2021/22 and 2022/23 were analysed separately. A matched sample of 41 parents responded to the survey at baseline and endline in 2021-22 and a matched sample of 20 responded to the survey at baseline and endline in 2022-23. Across the two years, 17 parents took part in focus groups conducted in June 2022 and 2023.

9. Sustained positive home environment:

An adapted version of the *Effective Provision of Preschool Education Home Learning Environment (EPPE HLE)* was used to measure the quality of learning activities that parents perform with their children, which positively affects child development. A matched sample of 61 parents responded to this survey at baseline and endline between 2021-2023.

Additional measures and data collection

Several additional questions were asked of parents, teachers, and children to gather their views on Boromi as a whole.

1. Boromi domains

To gather teachers' and parents' views on the development and progress of the children against the four learning and developmental domains set out by Boromi, several additional questions were added to the teacher and parent survey at both baseline and final. The responses from 2021/22 and 2022/23 were analysed separately for the Boromi domains due to only final responses being collected in 2022 (the first year of the project).

2. Child Voice

In an effort to gather children's voices directly, a simple "Think, Feel, Do" activity was administered at the end of each year with the help of their parents. This involved a simple A4 piece of paper, where the child's parent asked them simple questions of how the Boromi bag made them feel, what it made them do, and what it made them think. The responses were coded based on the key themes that emerged, encompassing types of play and behaviour, types of emotions and types of thoughts.

3. Teacher end of term engagement survey

To better understand how families have engaged and interacted with Boromi over each term, all teachers were asked to complete a survey. This was administered once per term in the year 2022-2023, at the end of term, and completed by teachers who had engaged with Boromi. This was analysed over the three terms with a total sample of 43 teachers: 21 in term 1, 20 teachers in term 2 and 2 teachers in term 3.

Limitations

► The sample size for Term 3 for the end of term engagement survey was very small.

While we have quantitative data for all three terms, we have a very small sample of only two teachers for term 3. This limits the robustness of the findings and should therefore be viewed tentatively. This also meant that we were only able to analyse this termly data as a whole for most statements, and not separate it by term.

► No control group design

This evaluation does not feature a control group. Therefore, while ImpactEd may be able to identify changes in measures between the pre- and post-intervention surveys, we cannot be confident that these were correlated with their involvement

in the Boromi programme. ImpactEd could advise on this for future evaluation cycles if required.

► **Changes to custom surveys**

Due to edits being made to some of the custom surveys over the two years this did not allow for the 2021/22 data to be combined with the 2022/23 data. This therefore could somewhat limit the robustness of the findings due to a much smaller sample size when analysed separately. Going forward however, these surveys will likely not change, and so subsequent years of data collection will be compared to the 2022/23 data.

3. Outcomes

Outcomes for children

Child communication, language and oracy

Key Finding 1: Children experienced an average of 23 percentage-points change from baseline to final in 2021/22 and 25 percentage-points change in 2022/23 in their communication skills. This change in scores was statistically significant showing the changes observed in children’s communication, language and oracy were likely an effect of Boromi.

A custom scale was used to measure the outcomes of improved child communication, language and oracy skills, and increased cognitive development skills. The questions were answered on a 1–5-point Likert scale. Figure 2 below shows the overall increase in average scores in 2021/22 and 2022/23, Where scores using the custom survey scale increased from an average of 2.72 to 3.63 in 2021/22 and from 2.79 to 3.80 in 2022/23.

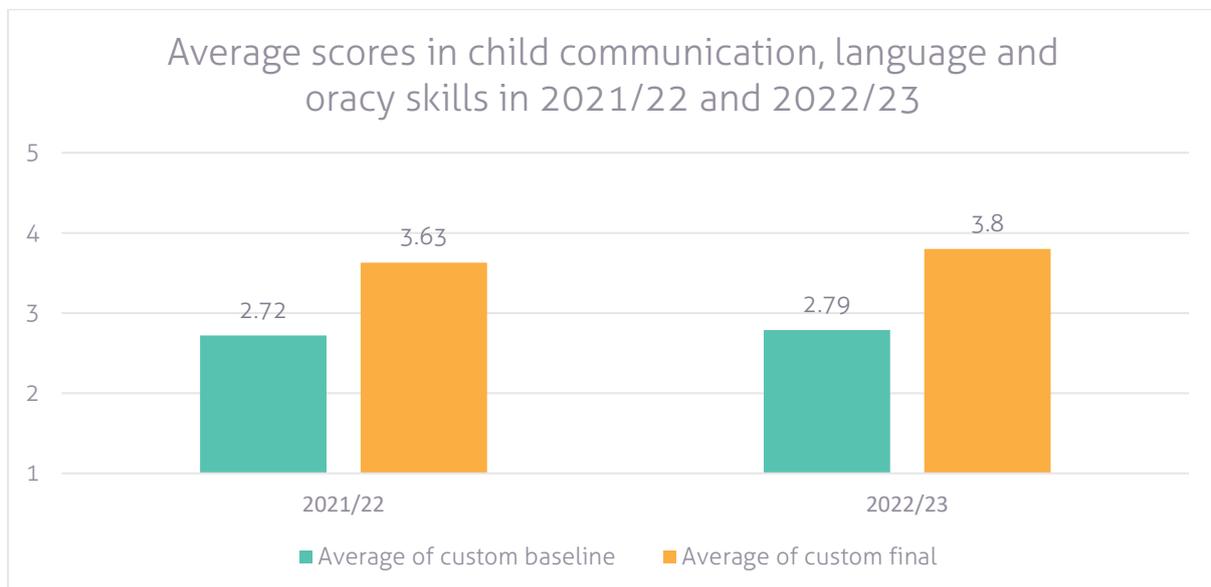


Figure 2. Average scores for the teachers’ custom survey in 2021/22 and 2022/23. Sample for 2021/22: n=116 and for 2022/23 n=78. Responses were answered using a Likert Scale 1: Strongly Disagree and 5: Strongly Agree

The change in average scores in 2021/22 and 2022/23 were both statistically significant ($p < 0.00$), meaning that the changes observed were likely an effect of Boromi, and not simply by random change. However, it should be noted that in the absence of a control group or academically validated measures, it is difficult to be confident that the change between pre-intervention and post-intervention scores can be wholly attributed to Boromi.

When analysing the data by gender, the **average percentage-points change for girls in 2021/22 was 19% and for boys it was 26%**. These changes showed further improvement in 2022/23, where the percentage-points change for **girls was slightly higher at 24% and the same for boys at 26%**.

Children eligible for pupil premium in the 2021/22 cohort showed an increase of **23 percentage-point change** for pupil premium children compared to 26 percentage-point change for those who were not eligible for pupil premium. In the 2022/23 cohort, there was **an increase of 25 percentage-points change for pupil premium children** compared to 29 percentage-points change for those who were not eligible for not pupil premium.

Teachers' rating of children's reading levels in 2021-22 showed an increase in average scores from 1.35 at baseline to 1.63 at final. **This change was statistically significant ($p < 0.00$)** suggesting it is unlikely to have occurred due to chance.

Female children showed an increase from an average of 1.43 to 1.70 and male children showed an increase from an average of 1.28 to 1.57. This is demonstrated in Figure 3 below:

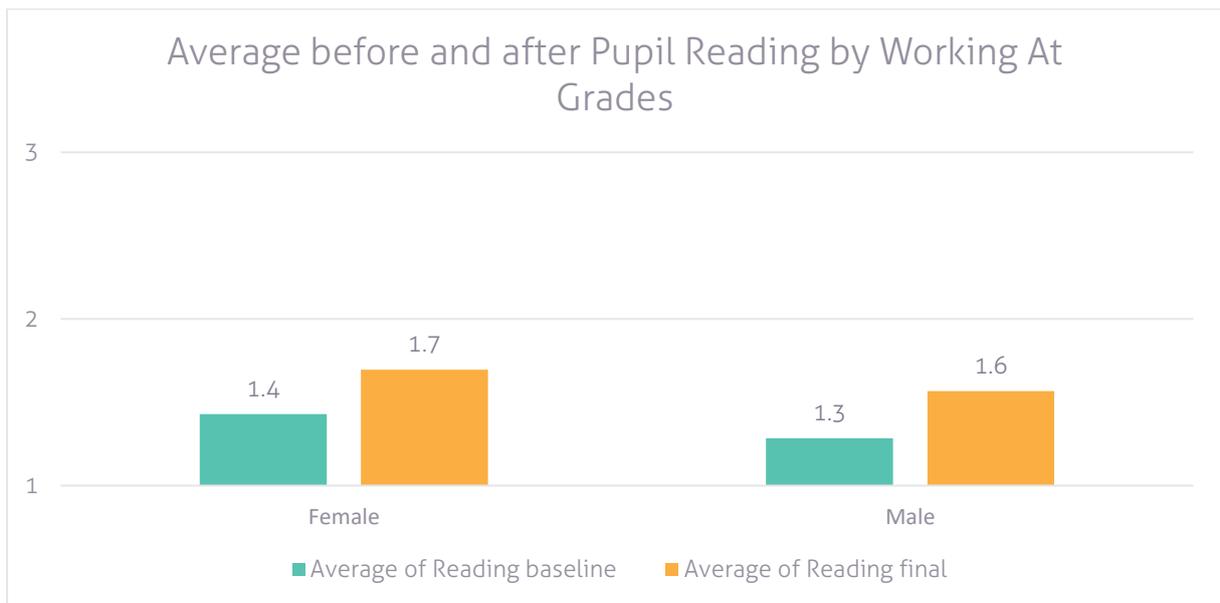


Figure 3. Average before and after children's reading by working at grades, $n=116$. Responses using a Likert scale 1: working towards the expected grade to 3: working at greater depth within the expected grade.

Teachers used the same rating for children's oracy levels, which showed an increase in scores from an average of 1.47 at baseline to 1.72 at endline. This positive change was also statistically significant yet in the absence of a control group we cannot confidently attribute this impact to Boromi over some other background factors.

Female children showed an average increase from 1.64 to 1.82 and male children showed an increase from 1.32 to 1.62. This is highlighted in the Figure 4 below:

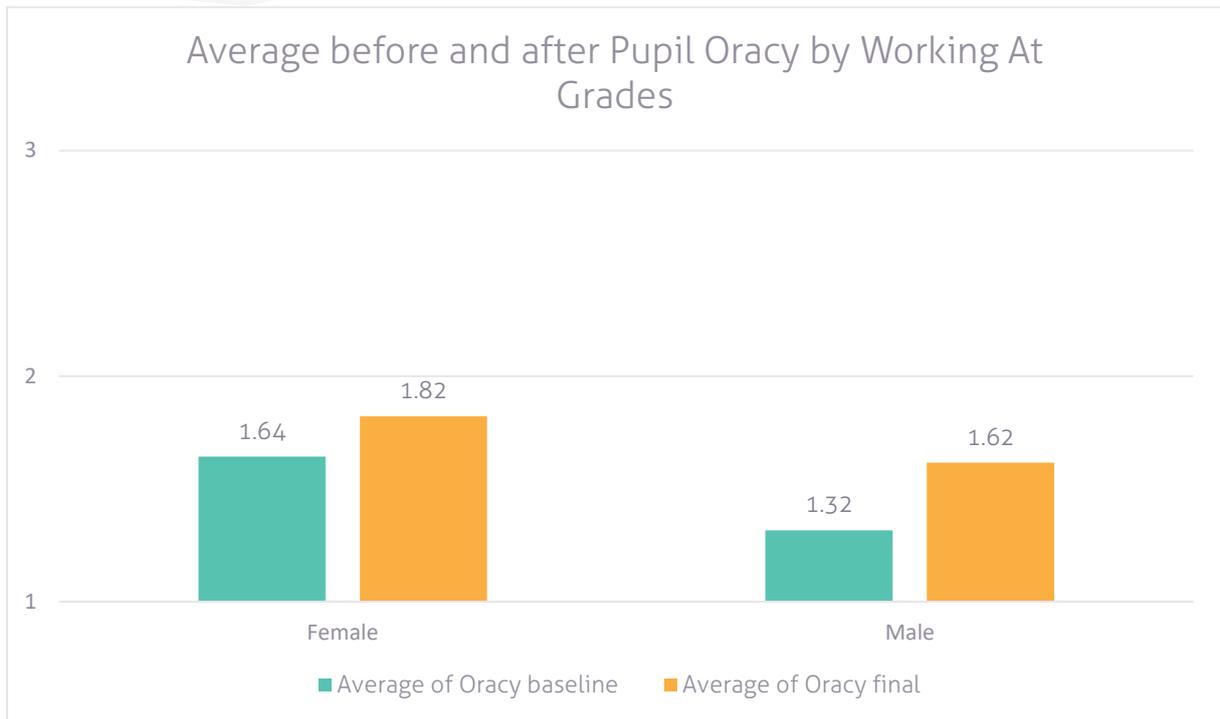


Figure 4. Average before and after children's oracy by working at grades n-116. Responses using a Likert scale 1: working towards the expected grade to 3: working at greater depth within the expected grade.

Key Finding 2: Teachers noted that Boromi has helped to improve children's vocabulary and language skills, both directly through instructions and indirectly by encouraging interactions with parents.

Despite challenges for teachers to evidence a definitive link between the Boromi play bags and children's development in language skills, they were nevertheless positive in the view that Boromi likely contributed to children and parents developing a new set of vocabulary, which in turn was able to open up a new area of understanding for the children.

Teachers acknowledged that it is difficult to separate Boromi's specific impact from other teaching methods but said that parents' engagement and extended playtime with the bags have positively affected the children's language skills. In particular, it has helped improve vocabulary for children with parents lacking language skills at home.

bb It's the parents who haven't got those language skills at home, and it's giving them that variety of vocabulary to use with the children when they are playing."



"I've noticed that he's doing that in other games... he sits and thinks more about how to get the end result he wants."

In the parent focus groups one parent observed that their child's problem-solving skills and cognition improved through the interactive nature of the Boromi play and the engaging activities.

Child social and emotional development

Key Finding 3: There was a statistically significant change ($p < 0.00$) in average scores for children's social and emotional development from baseline to final over the two years 2021–2023, indicating the small but positive effect of Boromi play bags on children's social and emotional outcomes.

This Strengths and Difficulties scale was used to measure improved social and emotional development skills of the children. The questions were answered on a 1–5-point Likert scale. Scores completed by 194 teachers at baseline and final showed an increase in average scores from 2.89 at baseline to 3.00 at final. The results showed a **small increase of 0.03 percentage-points change**. This change was statistically significant ($P < 0.00$). Figure 5 below shows the increase in average scores over the two years.

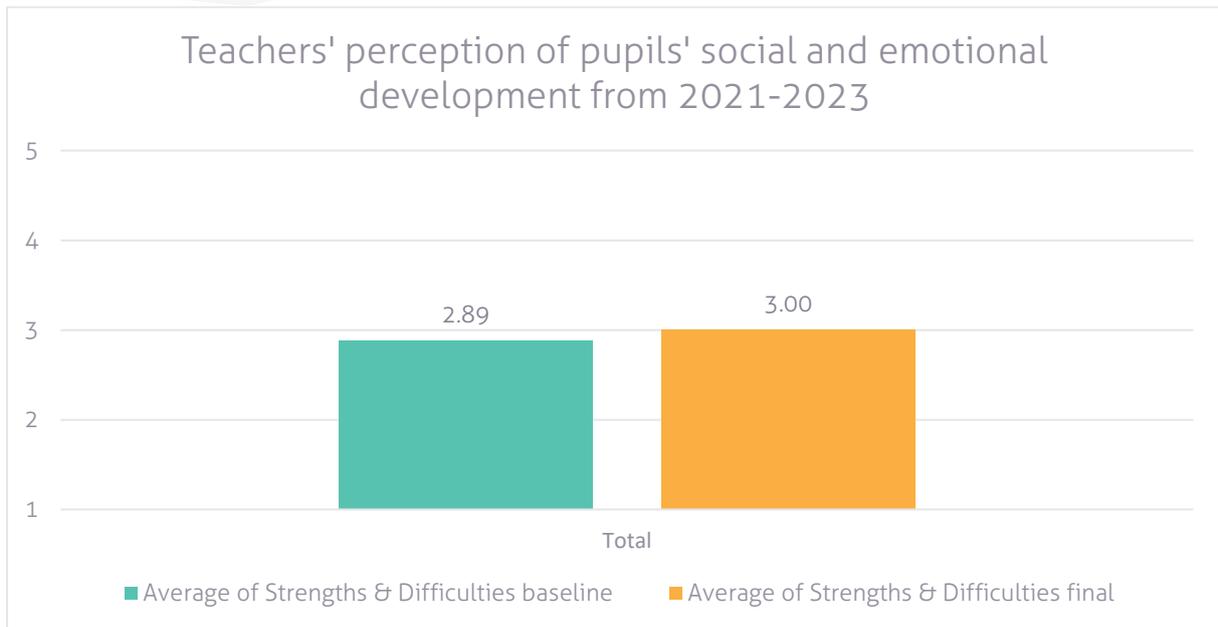


Figure 5. Teachers' perception of child's social and emotional development from 2021-2023 n=194. Responses using a Likert scale 1: Not at all true to 5: Certainly true.

Child behaviour

Key Finding 4: Children with EAL as well as non-EAL children showed a similar minor yet positive improvement in their behaviour at both school and at home, with a 0.03 percentage-point increase across the two years.

The Adaptive Social Behaviour Inventory survey completed by 61 parents over the two years was used to measure the children's behaviour at home and at school. It identifies internalising, externalising and hyperactive behaviours, as well as prosocial skills and can help measure general self-regulation skills that are linked to social and emotional development in the early years. Parents answered the questions on a 1–5-point Likert scale.

Average scores showed a marginal increase from 3.70 at baseline to 3.82 at endline. This change was statistically significant ($p < 0.02$) suggesting Boromi had a positive impact upon children's behaviour at home and at school.

When dissecting this by gender, girls showed an average increase from 3.63 at baseline to 3.74 at endline and boys scores increased from an average of 3.79 at baseline to 3.91 at endline.

EAL children showed an increase of 0.03 percentage-points change from an average score of 3.51 at baseline to 3.62 at endline compared to non EAL children who showed an increase of 0.03 percentage-points change from an average score of 3.78 to 3.89. Figure 6 below shows the increase in average scores for EAL as well as non EAL children.

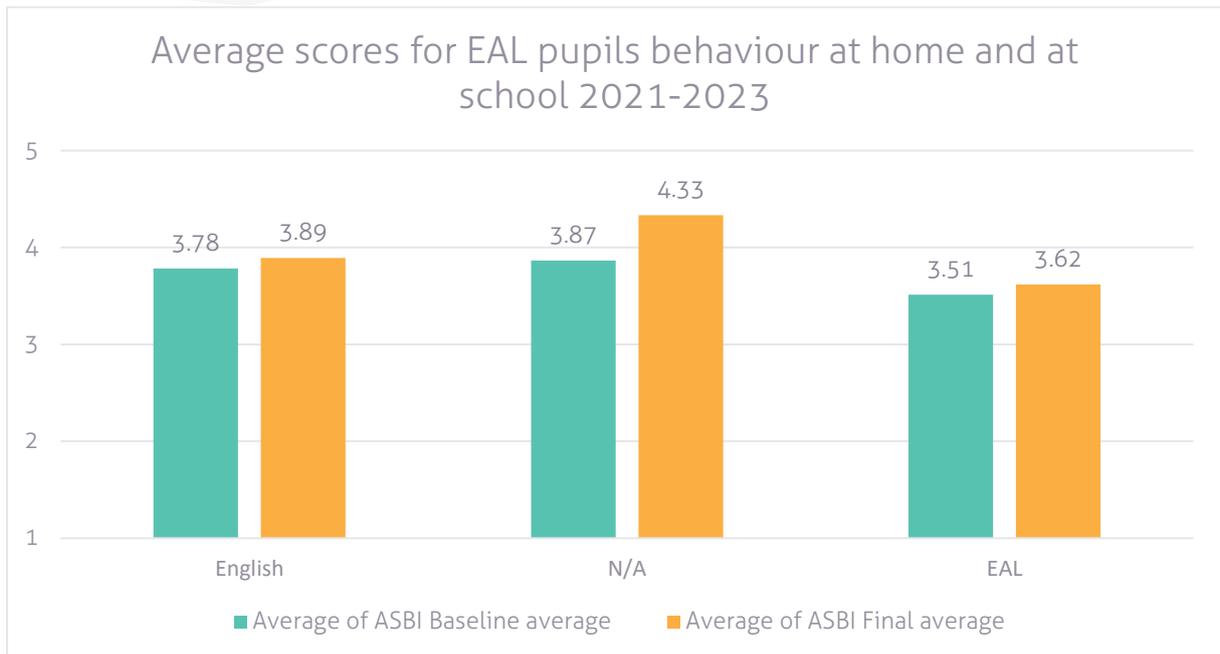


Figure 6. Average Adaptive Social Behaviour Inventory scores for EAL children n=61 (English, EAL & N/A). Responses using a Likert scale 1: Rarely to 5: All of the time.

Key Finding 5: Parents and Teachers commented upon an improvement in children’s resilience and their ability to share with their siblings at home.

Feedback from the focus groups with teachers suggested that children were very engaged with Boromi and spent a lot of time playing with the activities. Teachers shared that over the course of the year they had observed positive changes in their children’s resilience. For instance, one teacher shared that several of their children had struggled with sharing items and resources with their siblings, and that parents reported a shift in this behaviour since interacting with Boromi. It is unclear however whether this was a direct effect of the Boromi play bags, or of other factors.

Teachers also commented that parents had noticed that when their child had a Boromi bag at home, they were far less likely to want to interact with technology, such as tablets and YouTube, instead, they could sustain a long period of focus with the activity in the Boromi bag.

she found that the activities focussed around sharing have helped him with sharing with his younger sister, and that has been a big thing for us.”

bb it's really given that resilience especially the experiment and activities. The one (activity) they really loved was where they stacked the people in different ways and made patterns - it's giving them their resilience to keep going. If something is hard and they haven't given up."

Boromi has also had an impact on children's resilience and engagement in activities, where children were engaging in class activities for longer periods of time.

Several teachers agreed that they had received feedback from parents about similar behaviour at home and had also noticed this within their classrooms as well, where children were more likely to persevere at an activity rather than giving up after the first try. In focus groups with

parents, it was also discussed how the play bags positively influenced their children's behaviour both at home and school. One parent mentioned that their child showed improved focus and problem-solving skills when playing with the bags, leading to better behaviour in other activities. Another parent highlighted how their child's vocabulary and communication skills improved through the imaginative play facilitated by the bags, contributing to better behaviour and social interactions with others. The engagement with the bags also encouraged the children to share and cooperate, promoting positive behaviour in their interactions with siblings and peers. One parent mentioned how the play bags encouraged positive shared play between their children.

bb I've noticed that they take care of each other... Boromi kind of puts them all together... they're learning to play together and sharing is caring."

Child engagement and motivation to learn

Key Finding 6: Teachers shared how Boromi positively influenced their child's participation, interest, and imagination at home and at school.

The focus groups conducted with teachers enabled us to gain a greater insight into children's engagement and motivations for learning within the classroom. Teachers spoke very positively about the children's responses to the play bags.

All children were extremely enthusiastic about receiving the play bags. Parents and teachers found the children loved them and were really excited when it was their turn to take a Boromi play bag home with them. Parents from EAL backgrounds noted many instances in which it was evident children were more engaged to learn because of using the play bags. One parent commented her child would often try to replicate activities from the play bags. Another added that after receiving a Boromi play bag that contained a tent, their child began to independently

bb Now she is curious about things. She wants to go and see and learn. She enjoys all of it" – Parent from an EAL background

read for 15-20 minutes every evening in the tent with a torch. She distinctly pointed out her child did not enjoy reading much from nursery or school, but particularly enjoyed reading from the play bag.

Teachers expressed similar sentiments, describing that none of their children who had been involved with Boromi had ever refused or not wanted to take a bag home. Teachers also discussed how Boromi positively influenced children's imagination at home and school, with one teacher stating that parents had been quite surprised at how simple and accessible the play bags were, and that they could see how much development could come about in their child from "such a simple resource".



They just can't wait to have a peep inside and they're so excited to see what it's going to be. And when the children bring it back, it's like parents have said, 'Can we have it again? We really liked that.'

Furthermore, teachers commented on how Boromi fostered transferable skills, where children would play off what was already in the play bags and bring other objects and items from their home into the game. Another teacher relayed that when children would talk about the building block activity, this would spark interest amongst the children in what building blocks were used for in the wider world, and the concepts associated with this, such as big and small.



So we've talked about bricks and then the language of bigger and smaller, where you can see some of these concepts starting to develop..."



He's got some older sisters and then they were making their own roads with different resources at home after playing with that car.... Such as tins and beans".

While the vast majority of feedback was positive, a few parents commented their child would initially be excited about the bag but would quickly become disinterested after several days once they had played with the items several times. As a result, one parent commented that it could often be challenging to spend "quality time" with their child due to the fact their child's interest in the contents of the play bag waned so quickly. They commented generally that this was when they were playing with resources they had already been exposed to. When asked how Boromi impacted their child, one parent replied that their child didn't have as much interest in the resources and suggested later on it was because they have, "a lot of the things ... at home." This suggests that the number of days a family borrows a play bag and the selection of resources within the bag may be key drivers behind family and child engagement.

Outcomes for parents

Parent confidence, support, frequency of play and engagement with their child

Key Finding 7: Parents reported a 1.25 percentage-point increase in confidence, knowledge and ideas to initiate play-based activities with their child in the 2022/23 survey.

The parent custom survey was used to measure parental confidence, knowledge, and ideas to initiate play-based activities with their child. In addition, it looked into parents' agency to design and support new learning opportunities, the frequency of high-quality play between the parent and their child and parental engagement in their child's learning.

Due to changes to the wording and number of the of the questions, in the second year of the survey, the parent custom survey scores were analysed separately. Therefore, **scores from the 2021/22 custom survey showed a small decrease in scores from an average of 4.68 at baseline to 4.52 at endline.** This was a decrease of -4 percentage-points change from baseline to final.

The parents of **female children showed a decrease of -5.53 percentage-point change** whilst the parents of **male children show a decrease of -2.13 percentage-points change.** The average scores reported by parents in 2021/22 are shown in Figure 7 below:

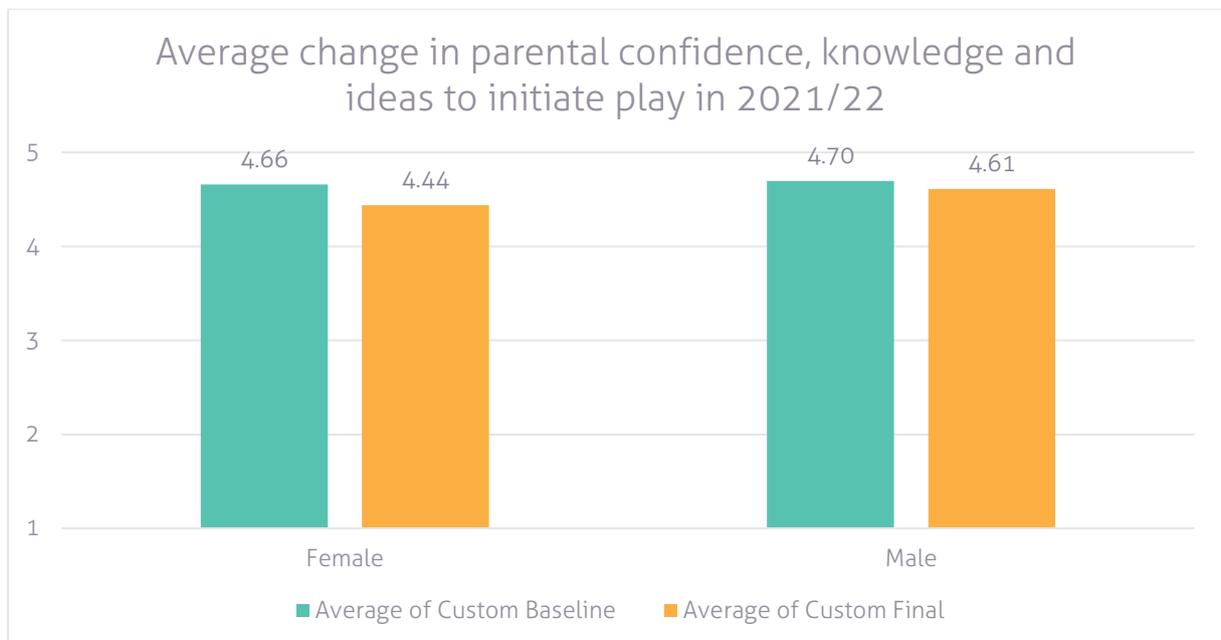


Figure 7. Average baseline to final scores of the parent custom survey n= 41. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree

On the other hand, scores from the 2022/23 custom parent survey showed an overall **increase in scores from an average of 4.46 at baseline to 5.51 at endline**. For parents of female children the increase was slight from an average score of 4.53 to 4.54 and for parents of male children the increase went from 4.39 at baseline to 4.48 at endline. For parents of female children this was a percentage-point increase of 0.28 percentage points and for **parents of male pupils a larger increase of 2.22 percentage points** suggesting Boromi may have had a positive impact on parents' confidence, knowledge and ideas to initiate play-based activities with their child. This is demonstrated in Figure 8 below:

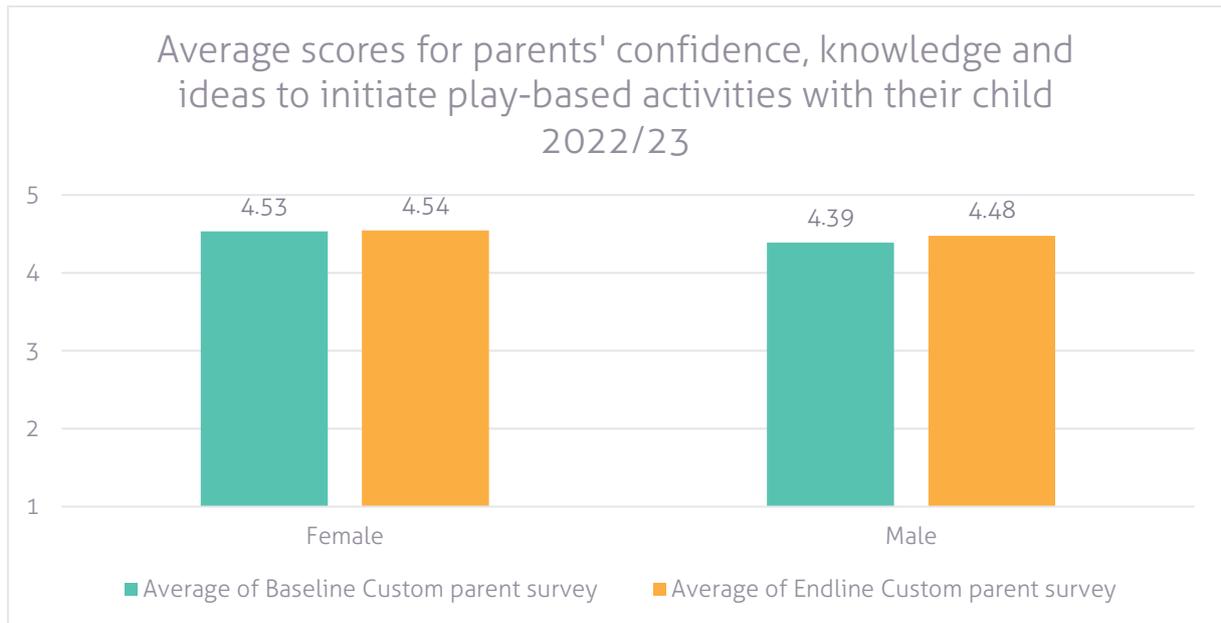


Figure 8. Average baseline to final of parent custom survey 2022/23 n=20

Whilst parents of non EAL children showed an increase from an average score of 4.49 at baseline to 4.57 at endline (1.91 percentage-points change), parents of EAL children's score decreased from 4.33 at baseline to 4.28 at endline (-1.39 percentage-points change).

To further understand how parents interacted with their children, several additional questions were added to the 2022/23 custom survey, where parents were asked several questions related to frequency of instances of play: "Over a typical week, how much available time do you have to spend playing together with your child at home?". Figure 9 below shows the number of responses in each category:

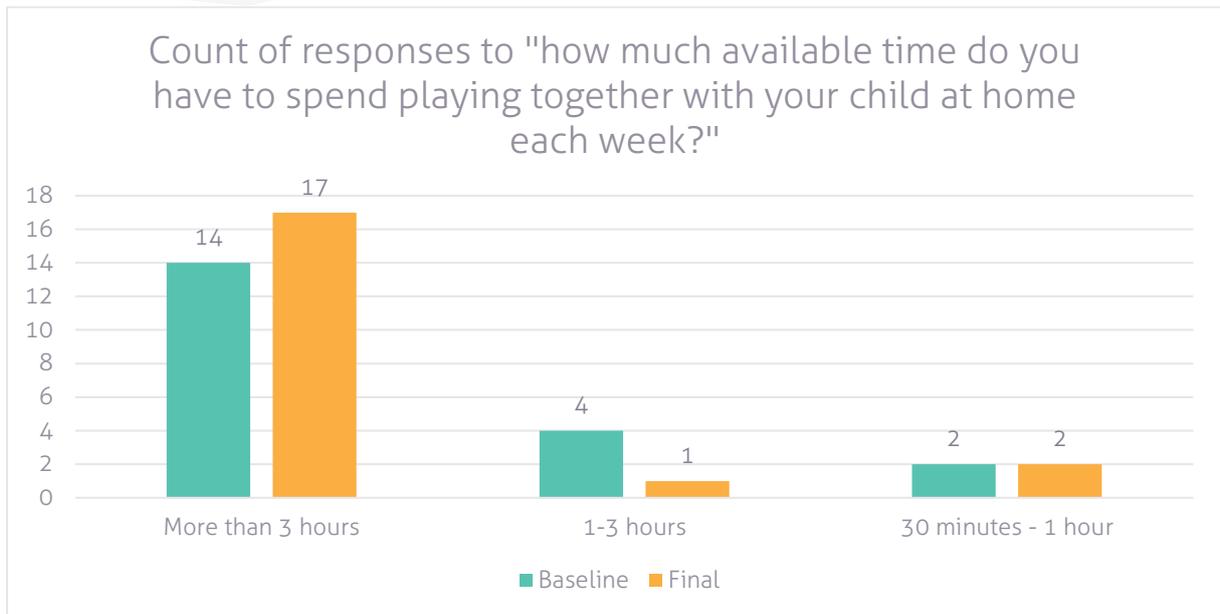


Figure 9. count of responses to parents available time playing with their child at home n=20.

As can be seen in Figure 9, the majority of parents indicated in both baseline and final that they had more than 3 hours of available of time to spend with their child per week. Following this, parents were asked "Of this available time, how able do you feel you are to use this time effectively to play together?". Figure 10 below shows the number of responses in each category:

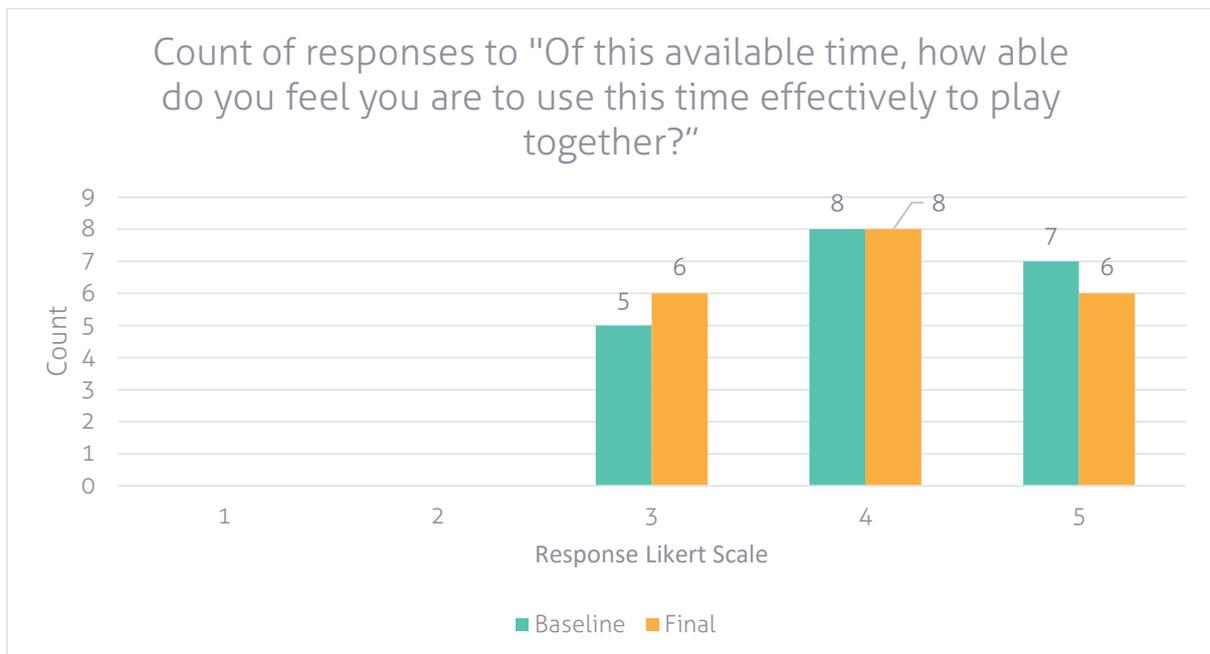


Figure 10. count of parents not at all able/sometimes able/always able to play with their child using a Likert scale of 1: Not at all able to 5: always able, n=20

In addition to the quantitative work exploring the hours spent playing and learning with their children, conversations with parents during the focus groups evidenced that the use of the play bags facilitated more shared play between parents and children. Parents mentioned that Boromi encouraged them to participate in the child's play and learning experiences actively.

Another parent highlighted how Boromi fostered meaningful interactions with extended family members, suggesting that the play bags appeared to strengthen the parent-child bond through shared activities and play.

One parent shared the example that the play bags fostered engagement between their child and their child's grandparents, "when we get the bags, it encourages the grandparents to get involved too... it's a real treat".



It gives us a chance to look at something different... we make an effort to play with them."

Although not directly an outcome of this evaluation, parents also mentioned how the play bags fostered a sibling bond. The activities in the bags prompted children to collaborate and play together, fostering sibling bonding and cooperation. One parent mentioned how her children, despite different ages, found joy in playing together with the bags, even when



They've all ended up playing with them... my older kids joined with him, and they play together."

it wasn't their turn. The bags' variety and novelty also kept the children engaged and motivated, avoiding boredom and promoting independent play without relying on screens or electronic devices. Parents observed that the Boromi play bags promoted independent play among siblings.

Key Finding 8: Discussions with parents

indicated that parental engagement with their child's learning increased, which in turn seemed to positively impact their agency in devising new play ideas outside of the play bags with their child

The focus groups with parents sought further insights into parental agency to design and support new learning opportunities. By exploring the bags together and participating in the play activities, **parents gained insights into their child's interests and learning preferences.** This experience led them to devise new play ideas and activities outside of the bags, tailoring learning opportunities to their child's individual needs. For example, one parent mentioned how **the bags sparked their creativity to find other role-playing activities that align with their child's interests,** leading to an enriched learning environment at home. Parents expressed that the play bags provided them with ideas and materials to engage in meaningful learning experiences with their children.

Multiple parents commented that play can become repetitive, so Boromi offering a variation of resources they may not have traditionally bought their child offered new ideas.



Different things every week make them excited because it's something new."

Boromi play bags also empowered parents to become more proactive in their child's learning journey by introducing them to diverse play opportunities. They felt more confident introducing resources and play inspired by the bags. One parent from an EAL background discussed how they explored spots around the house that would need a screwdriver at home, after having used a toolkit in a Boromi play bag. Particularly when busy with younger children, work or household chores, parents commented they did notice how little time they were spending with their child, **and Boromi helped them to set specific time aside to spend with their child.** Another parent



There was a screwdriver in the bag, so her father took her around the house and showed her how it is used ... She learned a lot and it was good for her."

noted how Boromi encouraged imaginative play, alongside children's creativity and fostered collaborative play experiences among siblings. Parents expressed excitement and eagerness to explore the bags with their children, setting aside dedicated time for family play and interaction. This heightened engagement also extended beyond the bags, with **parents expressing interest in finding more learning materials and activities to support their child's development.**

From conversations with parents, it seems that instances of parents and their children playing with other items in the house independently of a Boromi play bag were not overly common, though parents had a lot to share in terms of increased instances where they played directly with the Boromi activities along with their child, or of their children playing with their siblings.

Home environment

Key Finding 9: The change in average scores for the quality of learning activities that parents perform with preschool children from 2021–23 were statistically significant ($p < 0.01$) suggesting Boromi had a positive impact upon this.

The EPPE HLE scale was used to measure the quality of learning activities that parents perform with preschool children. The average scores from baseline to endline **showed an increase of 0.05 percentage-points change which was statistically significant $p < 0.01$.** This was from an average score of 4.33 at baseline to 4.68 at endline.

The parents of EAL children showed an increase of 0.07 percentage-points change from 3.97 at baseline to 4.47 at endline whereas non EAL children showed an increase of 0.04 percentage-points change from an average score of 4.5 at baseline to 4.76 at endline. This suggests that Boromi had an impact upon the quality of learning activities for parents of EAL children as well as non EAL children. This is shown in Figure 11 below, where progress of children with EAL and those without are shown, alongside children whose EAL status was not disclosed (indicated as N/A).

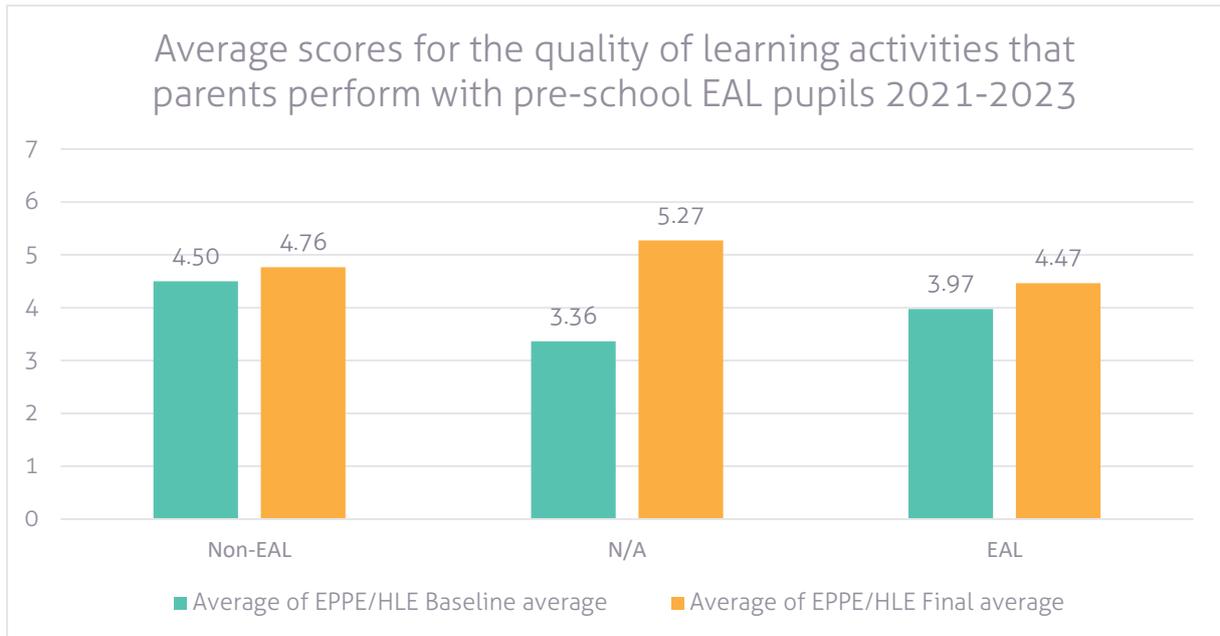


Figure 11: Chart to show average scores of EAL pupils from the EPPE HLE using a Likert Scale from 0=not occurring to 7= very frequent, n=61. N/A indicates children whose EAL status was not disclosed.

Additional measures and data collection

Boromi Domains: teachers

Key Finding 10: Teachers reported that children showed a statistically significant ($p < 0.05$) improvement in all four Boromi domains of Invent, Imagine, Share and Investigate across 2022–2023 indicating the positive impact that the bags had on children’s development in these areas.

The Domain responses from teachers for 2021/22 showed an average score of 3.47 for Invent, 3.47 for Imagine, 4.03 for Share and 3.97 for Investigate. Figure 14 below shows the average scores at endline in the year 2021-2022 for male and female children reported by teachers. This figure indicates that girls were reported to have the highest capacity in displaying all four domains compared to boys. Amongst boys however, the highest rated domain was their ability to share.

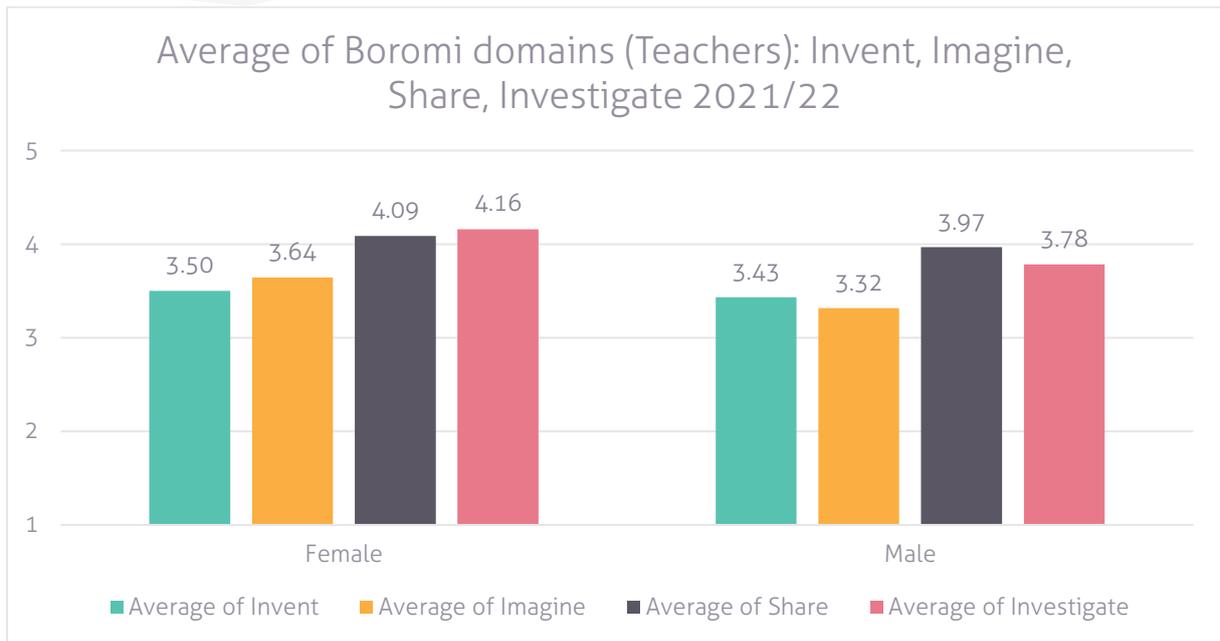


Figure 12. Average of Boromi domains 2021/22 teacher reported, n=116. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree.

The domain responses for 2022/23 showed an increase for all four domains, as shown in Figure 15 below. Teachers reported a positive increase in children amongst all four domains, with the domain of investigate showing the greatest increase of a 25.5 percentage point change. This indicates that the Boromi play bags encourages children to explore and widens their perspective of the types of activities available to them.

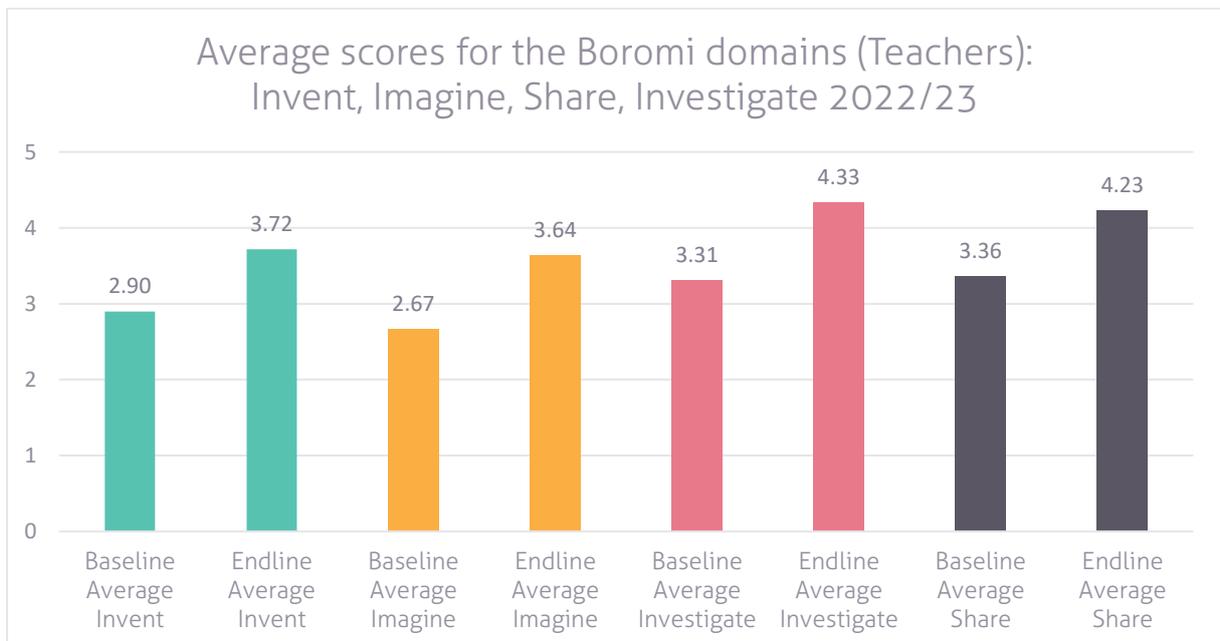


Figure 13. Average scores for the Boromi domains 2022/23 reported by teachers, n=78. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree.

Boromi Domains: parents

Key Finding 11: Across 2022/23, parents reported a 2.5 percentage-point increase in their child’s ability to share.

In June 2022, several additional questions were added to the endline survey to better understand and measure any changes in children according to the four main themes of Boromi: Invent, Imagine, Share and Investigate. Therefore, these questions were asked of parents and teachers at endline 2021/22, baseline 2022/23 and endline 2022/23. Endline only scores for parents in 2021/22 showed an **average of 3.83 for Invent, 3.90 for Imagine, 4.44 for Share and 4.34 for Investigate**. Figure 12 shows the average scores for the four domains of Boromi at endline in the year 2021/22 for male and female children reported by parents. Interestingly, parents reported overall greater alignment of behaviours exhibited in their children across both genders, where boys and girls showed similar average scores. Furthermore, parent reported scores for 2022/23 show a higher average rate than that reported by teachers. One reason for this could be that parents and teachers observe the children in different environments, where children could show less or more of certain behaviours.

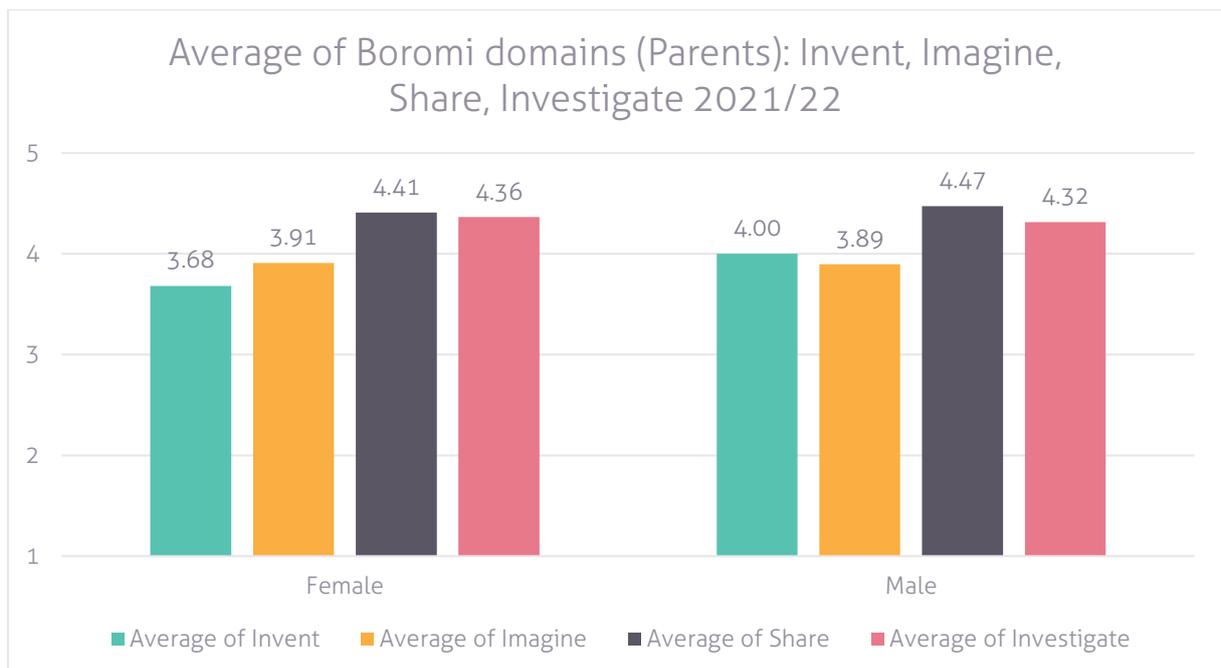


Figure 14. Average of Boromi domains 2021/22 male and female reported by parents, n=41. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree.

The domain responses from parents in 2022/23 showed a slight decrease from baseline to final for Invent, Imagine and Investigate but an increase from 4.55 to 4.65 in average scores for the share domain. This is shown in Figure 13 below:

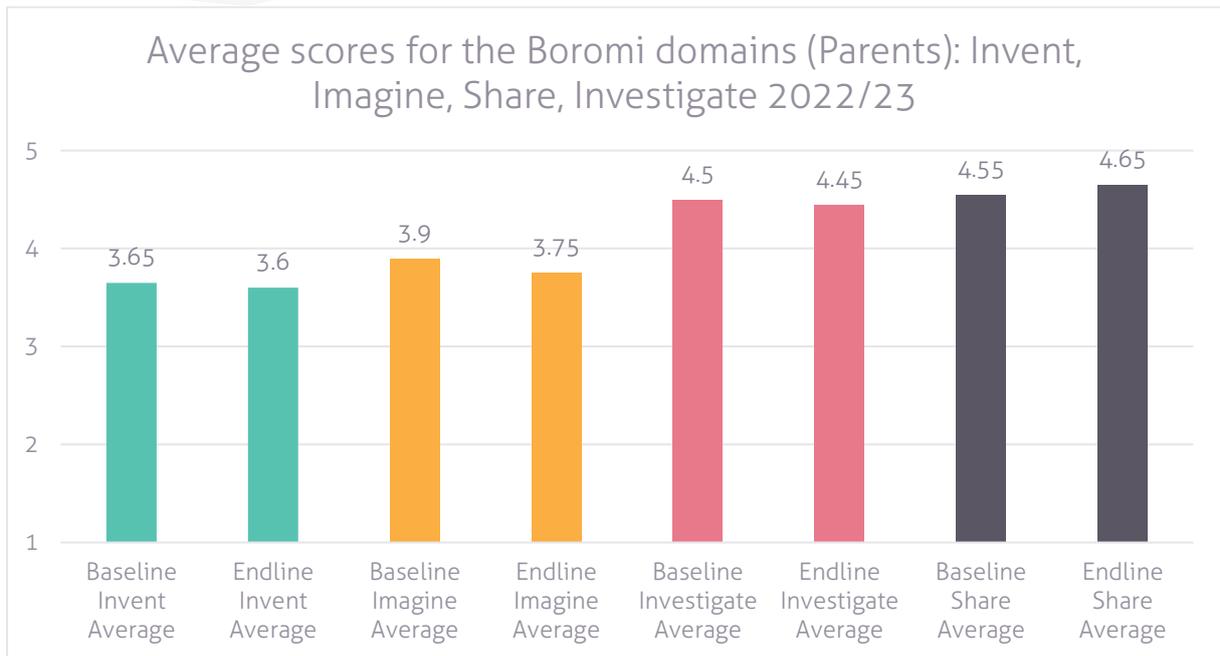


Figure 15. Average scores for the Boromi domains reported by parents 2022/23 reported by parents, n=20. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree.

Child voice

Key Finding 12: When asked how playing with the Boromi play bags made them feel, 88% of the children responded with a positive emotion, expressing happiness, confidence and excitement.

To gather evidence directly from the children on how they experienced the play bags, children were asked by their parents how the bags made them think, feel, and do. Parents then noted down their child’s response.

Comments noted by the parents on what the play bags made their children think suggested most children had a desire to play and explore more or had positive emotions towards their learning.

Figure 16 below shows the percentage of responses for each theme extracted from the children’s comments:

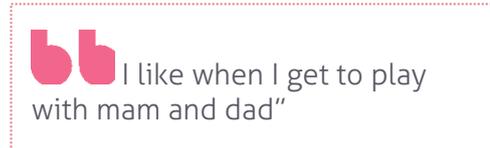




Figure 16: Chart to show what the Boromi play bag made children think, n=36

When the children were asked how the Boromi play bags made them feel, most responded with comments that indicated that **it made them feel happy**. Other comments suggested it

bb It made me feel really happy and excited"

made them feel excited, confident or nervous/surprised. Figure 17 below shows the percentage of responses for each theme that emerged from the comments on how the Boromi play bags made the children feel:



Figure 17: Chart to show how the Boromi play bag made children feel, n=42

There were a variety of responses on what the play bags made the children do with the greatest number of children wanting to continue directly engaging with Boromi related play. A large proportion of children expressed a desire to play with others, such as playing treasure hunts or building, and engage in play activities inspired by Boromi or general play. Figure 18 below shows the number of responses from the children within the different themes identified:

 Lots of building. I made different shapes"



Figure 18: Chart to show how the Boromi play bag made children feel, n=42

As can be seen in Figure 18, 25% of children expressed that that the Boromi play bag inspired them to initiate play activities directly outside of the resources provided in the play bags. Interestingly, although parents in the focus groups did not mention any instances of inspired play together with their child, it seems that children engaged in inspired play without the parents.

Teacher end of term survey

Key finding 13: Termly feedback surveys completed by teachers showed an increase of 22.62 percentage-points from term 1 to term 3 when they were asked the extent to which the offline physical accessibility affects parental accessibility and engagement in the programme.

In the 2022/23 academic year, teachers responded to a termly feedback survey. When asked "How would you rate the overall engagement of your class's children with Boromi over the past term?" scores remained largely stable, showing an average of 4.43 in term 1, 4.55 in term 2 and 4.50 in term 3. When asked to report on the engagement from parents however, average scores went from 3.9 in term 1 to 4.05 in term 2 and dipped to an average of 3.5 in term 3. Yet, when asked about the engagement of the hard-to-reach

parents, scores increased from an average of 3.24 in term 1, to 3.45 in term 2 to 4.00 in term 3, indicating that throughout the year, hard-to-reach parents and families increasingly engaged with Boromi. Perhaps this could be that once Boromi play bags become more embedded in the offering of a school, engagement of harder to reach families increases.

Teacher’s average rating of family enjoyment of the programme showed marginal and steady increases, from 4.48 in term 1 to 4.4 in term 2 to 4.50 in term 3. Although these changes were not statistically significant, it indicates that as time progressed, families sustained a high level of engagement and enjoyment with Boromi. Teachers were also asked how much value the parents in their class place on the importance of talking with their child. Average scores fluctuated somewhat, showing an average of 4 in term 1, decreasing to 3.4 in term 2 and increasing again to 4.5 in term 3. This indicates that **teacher observations emphasised that parents place more value on the importance of talk with their child at the start and end of the school year.**

When teachers were asked how valuable they found Boromi in supporting their children’s learning they responded with 4.29 in term 1, 4.25 in term 2 and an average of 4 in term 3. This could be due to more availability of time to engage with the bags at the start and end of the year or the value placed on the Boromi play Bags ability to help with preparation for the child’s next academic year.

Average scores increased each term when teachers were asked the extent to which they thought the offline accessibility positively affected *parental accessibility* in the programme. Figure 19 below shows the increase in average scores from term 1 to term 3, where the total change was 22.62 percentage points. This suggests that over the course of the 2022/23 academic year, **teachers increasingly viewed the physical and offline nature of Boromi play bags as offering a positive and accessible activity** for parents and their children.

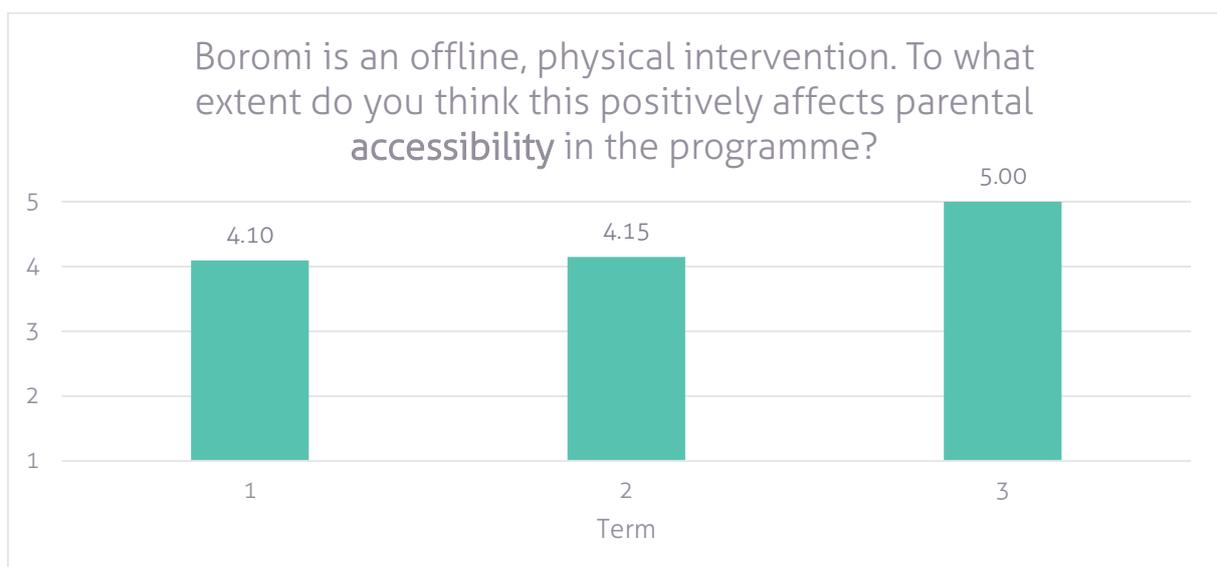


Figure 19. Average scores over each term to show the extent to which the offline, physical intervention affects parental accessibility. Term 1: n=21, Term 2: n= 20, Term 3: n=2. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree.

In addition, a similar trend was shown when teachers were asked the extent to which the offline physical intervention positively affects *parental engagement* in the programme. The increase in average scores over each term is shown in Figure 20 below:

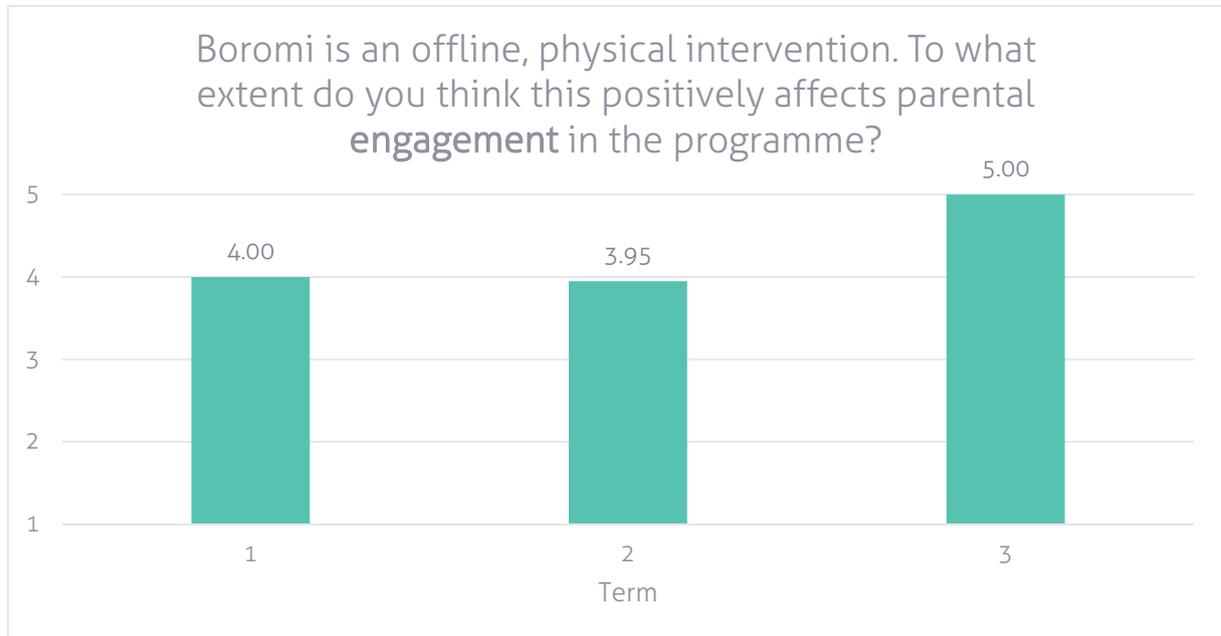


Figure 20. Average scores over each term to show the extent to which the offline, physical intervention affects parental engagement. Term 1: n=21, Term 2: n= 20, Term 3: n=2. Responses using a Likert Scale 1: Strongly Disagree to 5: Strongly Agree.

Out of the families that were offered Boromi, most teachers reported 81-100% signed up in term 1 and term 2. In term 3, most teachers reported that 61-80% of families signed up who were offered to take part in the programme. This is shown in Figure 21 below:

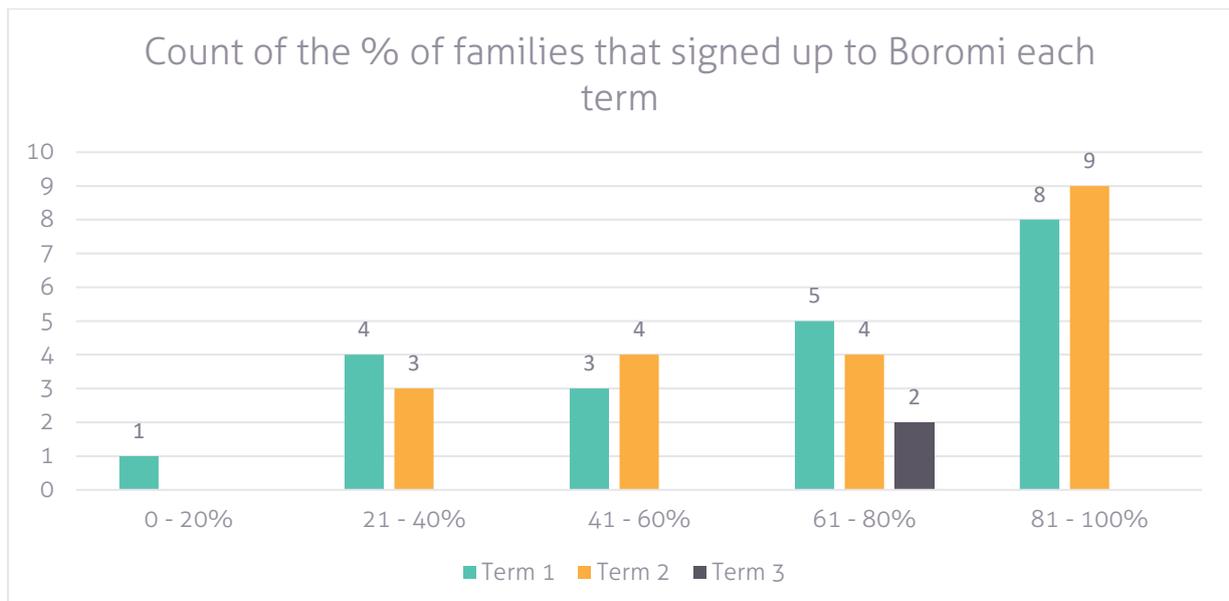


Figure 21: Chart to show the count of the percentage of families that signed up to Boromi each term Term 1: n=21, Term 2: n= 20, Term 3: n=2

In term 1 most families borrowed a bag three times, in term 2 most families borrowed a bag once or 4-5 times and in term 3 most families borrowed a bag 3 or 4-5 times. This is shown in Figure 22 below:

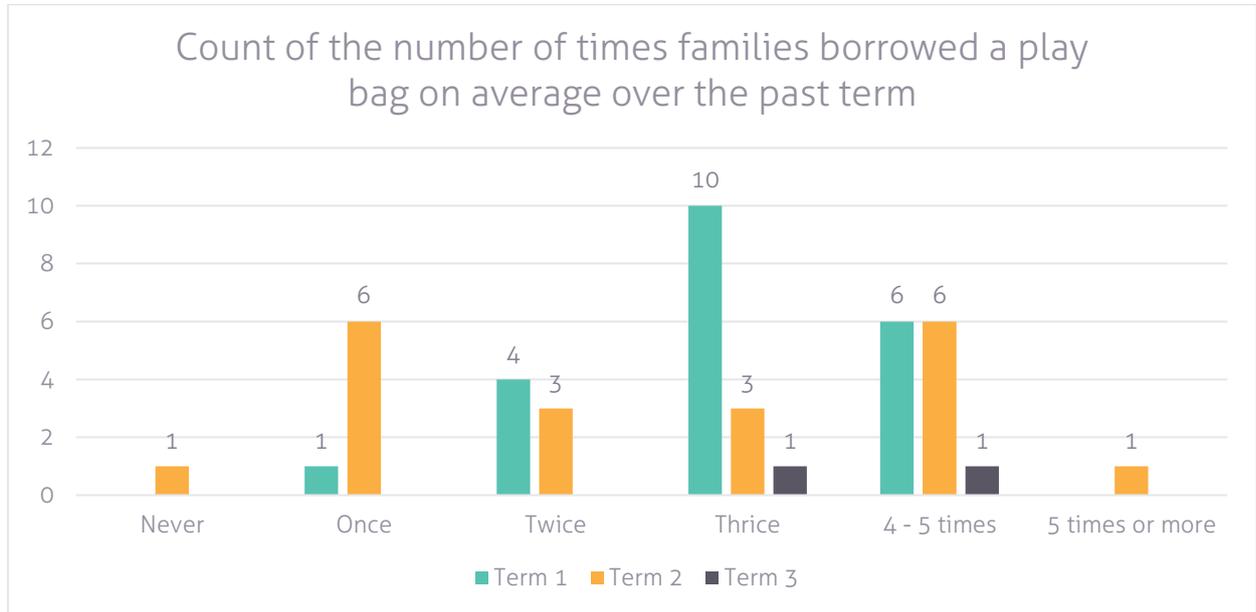


Figure 22: Chart to show the number of time families borrowed a play bag on average. Term 1: n=21, Term 2: n=20, Term 3: n=2

The most common length of time families borrowed a bag for in term 1 was 3-4 nights, this was the same for term 2 and for term 3 the most common length of time was 3-4 nights or 5-7 nights as shown in the graph below:

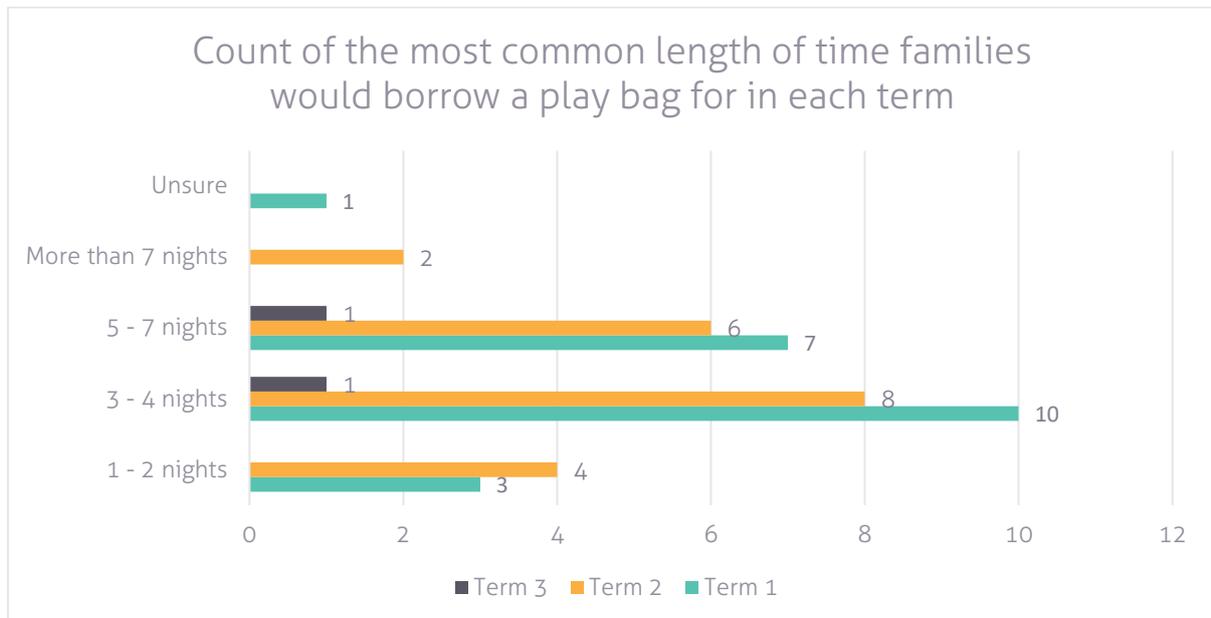


Figure 23: Chart to show a count of the most common length of time families would borrow a play bag for each term, n=43

Most teachers (a total of 17) reported that out of those children borrowing play bags, 41% - 60% were eligible for pupil premium. Figure 24 below shows the total number count of responses from teachers over the three terms reporting on the number of pupil premium children borrowing Boromi play bags:

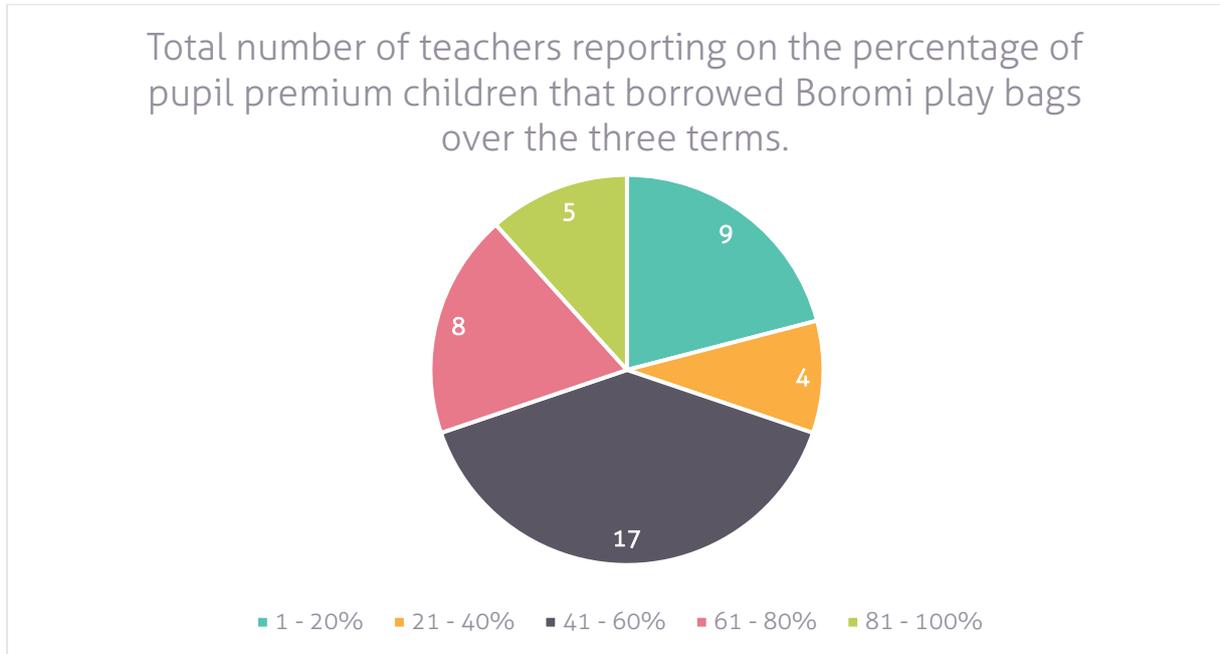


Figure 24: Chart to show the total number of pupil premium children that borrowed a Boromi play bag over the three terms, n=43

4. Summary

To summarise, this evaluation was aimed to explore the impact of Boromi's free borrowable Play Libraries on children's social and emotional skills, cognition, behaviour and language and oracy skills. In addition, it explored the impact of the bags on parental confidence and knowledge to initiate play-based activities and support their child's learning at home. Between 2021 and 2023, evaluation findings from surveys suggest **improvements in children's behaviour** as a result of the play bags, and **improvements to their communication, language and oracy skills**. Moreover, it was apparent that **children's skills were enhanced through their experiences with the Boromi play bags** specifically their **ability to share** (reported by both teachers and parents through the Boromi domains) as well as their **enhanced engagement and motivation to learn** which was reflected through the qualitative work with parents and teachers. This was also supported by parents and teachers in focus groups who reported that the Boromi play bags helped to improve children's vocabulary and language skills both directly through instructions and indirectly by encouraging interactions with parents. Oracy and Reading scores reported by teachers in 2021-22 also increased, showing that the **Boromi play bags had a positive impact upon the children's reading ability and their ability to express themselves fluently and effectively**. Yet it is important to note that with the absence of a control group we cannot confidently attribute this impact to Boromi over some other background factors.

Furthermore, an increase in scores from parent custom surveys suggested that Boromi had a **positive impact upon parents' ability and confidence to support their child's learning at home**. In addition, qualitative work showed that **parents felt more empowered to engage with their child's learning as it gave them more confidence to participate with their interests and play** inspired by the bags.

As previously discussed, several limitations need to be kept in mind when interpreting these results. These are noted in the recommendations section below.

5. Recommendations

Evaluation recommendations

Continue to increase sample size where possible

The sample size for the parent reporting scales in the evaluation was relatively low, which limited the level of inferential analysis possible in this evaluation. Increasing the sample size through parent incentives or reviewing the period in which parents are asked to complete surveys may help in higher response numbers. This in turn, will strengthen the robustness of findings, where there is a larger number of programme participants. In addition, future evaluations should aim for a slightly larger sample size and greater coverage of stakeholder groups (especially teachers), particularly in the context of qualitative research. This will enable us to make more confident conclusions about the impact of Boromi. It may be worth also considering an incentive for this.

Use control groups

To be more confident that the changes observed in the outcomes above were due to the impact of Boromi and not due to some broader background factor that affected the entire population a control group could be considered. ImpactEd would be able to advise on specific control group approaches if this was something Boromi wanted to pursue.

Repeat the evaluation.

This would help to identify whether the trends identified continue. This will strengthen the quality of the data and the confidence with which we can draw conclusions about the impact of the programme. This will also enable more accurate assessment of the long-term impact of Boromi.

Keep reviewed and adapted questions sets from the second-year surveys the same for future evaluations.

This would help with sample size and the robustness of the findings. It would also enable further comparison of future findings to the data from 2022/23.

Boromi to consider an incentive for teachers termly data.

In order to enhance the sample size for the termly data collected by teachers, teachers could be offered the chance to win an incentive, if data is completed for all three terms.

Programme recommendations

Teacher communication

Boromi could think about communicating more regularly with teachers to provide updates on engagement and progress as this could assist with raising engagement particularly for the end of term data.

Parent communication

For all participating schools, Boromi provides an introductory package containing webinars, videos and other accompanying documents. These resources can assist teachers in introducing the concept of Boromi to parents and carers. However, during the focus groups, it was clear that teachers were not always entirely aware of these materials. It is therefore suggested that Boromi could consider alternative ways in effectively messaging this to their schools to ensure teachers are more aware of the resources available to them.

Further align Boromi play bags with Boromi's outcomes

As parents noticed that their child's social and emotional development skills improved alongside their engagement and motivation to learn, Boromi could provide more challenging language and concepts within the bags to ensure the further development of communication, language and oracy skills.

Continue to provide novel activities

The children particularly enjoyed the activities which were very novel, such as the tent, the bug hunting, and the toolkit. Boromi could continue to introduce resources children may not be typically exposed to, as these were the ones that generally provided the engagement from children.

6. Glossary

Evaluation terminology

Academic attainment

This refers to test scores in academic subjects such as maths, science, English etc. Some evaluations will compare childrens' attainment in tests for these subjects at the start (baseline) and end (final) of an evaluation to see whether they have made progress over time.

Academically validated measures

These are scales to measure social and emotional skills linked to academic achievement and long-term life outcomes that have been developed and peer reviewed by academic researchers within the fields of education and psychology. These have been developed to ensure:

- ▶ Predictive validity. These skills have been shown to be closely related to desirable life outcomes such as educational achievement, employability and earnings potential, or long-term health and life satisfaction. (In psychometrics, predictive validity is the extent to which a score on a scale or test predicts scores on some criterion measure. For example, the validity of a cognitive test for job performance is the correlation between test scores and, say, supervisor performance ratings.)
- ▶ Construct validity. The measure tests for the skill that it says it does, as defined in the literature.
- ▶ Test-retest validity. The results stay the same when tests are repeated.

Baseline

The initial assessment of children's attainment or social and emotional skills, at the start of an evaluation.

Change over time

The difference between a child's baseline result and their final result, either for attainment or social and emotional skills. This indicates progress made during participation in the programme. This will begin to indicate whether the programme has had an impact on children, though we must also account for other factors that could lead to this change, which is why we recommend the use of control groups and qualitative analysis.

Control Group

A control group is composed of students who do not participate in the programme and who closely resemble the children who take part in the programme in attainment and demographic traits. It is used to get an indication of whether a change in results over the

course of the programme can likely be attributable to the programme itself, or whether results were likely to change over time in any case. Also known as a comparison group.

Evaluation

An evaluation is set up to measure the impact of a particular programme. This will involve monitoring the programme over a specified period, for one or more groups, in order to evaluate the progress participating children make. One programme can involve multiple evaluations, and we recommend gathering data across multiple time points to ensure valid and reliable results are generated.

Final

The final assessment of children's attainment or social and emotional skills at the end of an evaluation.

Matched Children

Matched children are children who carried out both a baseline and a final assessment at the start and end of the evaluation. It can be useful to consider results from Matched children only because this means only including those children who participated in the full duration of the programme.

Outcomes

We use outcomes to refer collectively to any social and emotional skills and academic attainment scores that are being measured over the course of an evaluation.

Programme

This could be any intervention, project or programme run in school with the aim of improving child outcomes or life chances. ImpactEd works with schools to build evaluations of their programmes in order to better understand whether they are having their intended impact.

Social and emotional skills

The term 'social and emotional skills' refers to a set of attitudes, behaviours, and strategies that are thought to underpin success in school and at work, such as motivation, perseverance, and self-control. They are usually contrasted with the 'hard skills' of cognitive ability in areas such as literacy and numeracy, which are measured by academic tests. There are various ways of referring to this set of skills, such as: non-cognitive skills, twentieth century skills and soft skills. Each term has pros and cons; we use social and emotional skills for consistency but we recognise that it does not perfectly encapsulate each of the skills that come under this umbrella.

Percentage change and percentage-point change

Percentage change quantifies the change we observed as a proportion of the value we started from. **Percentage point change**, on the other hand, quantifies the change we observed in absolute terms (i.e. not relative to the starting point). For example, if 50% of pupils answer 'yes' to a certain question in the baseline survey, but then, later on, 55% of

pupils answer 'yes' to the same question in the endline survey, this is a change of 5 percentage points but a change of 10% (since the difference, 5, is 10% of the starting value, 50).

Statistical analysis terminology

Statistically significant

A result has statistical significance when it is very unlikely to have occurred given the null hypothesis. In other words, if a result is statistically significant, it is unlikely to have occurred due purely to chance.

P Value

A p-value is a measure of the probability that an observed result could have occurred by chance alone. The lower the p-value, the greater the statistical significance of the observed difference. Typically a p-value of ≤ 0.05 indicates that the change was statistically significant. A p-value higher than 0.05 (> 0.05) is not statistically significant and indicates strong evidence for the null hypothesis; i.e. that we cannot be confident that this change did not occur due purely to chance.

Education terminology

EAL

Children with English as an Additional Language (EAL) refers to learners whose first language is not English.

Pupil Premium (PP)

The pupil premium grant is designed to allow schools to help disadvantaged children by improving their progress and the exam results they achieve. Whether a child is eligible for Pupil Premium funding is often used by schools as an indicator of disadvantage.



Partners and supporters



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