











Transforming Effective Early Educational Interventions for Virtual Delivery

Main Public Output

Research Team

Christine O'Farrelly¹, Eloise Stevens¹, Elizabeth Byrne¹, Peter Cooper², Tom Gallagher-Mitchell³, Emily Goodacre¹, Tim Hobbs³, Judy Hutchings⁴, Aiman Kamarudin¹, Natalie Kirby¹, Jack Martin⁵, Tom McBride⁵, Lynne Murray², Cristina Preece³, Deon Simpson³, Margiad Williams⁴, and Paul Ramchandani¹.













- ¹Play Education Development and Learning, University of Cambridge
- ² School of Psychology and Clinical Language Sciences, University of Reading
- ³ Dartington Service Design Lab
- ⁴Centre for Evidence Based Early Intervention, Bangor University
- ⁵ Early Intervention Foundation

Affiliations list the institutions where the authors conducted the research.

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Executive Summary

Background

Socioeconomic inequalities in children's skills emerge early. Of these inequalities, gaps in children's language development are particularly marked, which is the strongest predictor of school readiness and in turn influences later school success and other outcomes. Stimulating learning opportunities in the "home learning environment" in the early years can act as a protective factor, reducing inequalities in families' caregiving experiences and children's outcomes. Early interventions that promote responsive and enjoyable interactions with books, such as book sharing programmes, have a strong evidence base for improving children's language development. However, maintaining the quality and effectiveness of such approaches at scale and outside of a highly controlled experiment has proven challenging (Axford et al., 2020; Gupta et al., 2021; Shonkoff, 2017). Early interventions also struggle to reach families who experience the highest levels of disadvantage.

To reach more families who might benefit, early interventions need to fit into the demands of family life and be responsive to families' priorities, as well as being feasible and practical for services to deliver. Virtual delivery provides one viable way to reduce delivery costs and many barriers associated with in-person support, thus helping to address issues of reach and cost-effectiveness.

The present study

The goal of this study is to provide an evidencebased book sharing programme that can be delivered virtually to families to address socioeconomic disparities in children's early learning and language acquisition. We used Rapid-Cycle Design and Testing (RCDT) to develop and test an online book sharing programme, called Playtime with Books, based on an existing, effective, face-to-face book sharing intervention. The Playtime with Books programme includes five online skills sessions and individualised video-feedback support delivered virtually by practitioners from local early years services or charities. We tested the intervention's virtual delivery and evaluated its feasibility and acceptability to families and early years practitioners.

Design The study used RCDT to develop the online programme and test its feasibility and acceptability with families and early years practitioners across three cycles. As the cycles progressed, we introduced some variations of the programme with reduced or alternative facilitator contact. The focus of the testing and learning was on the 'full programme' (which includes both the skills sessions and video-feedback) as this reflected all components of our theory of change.

Setting Families and early years practitioners were recruited from six sites across England and Wales, including local council early years services (e.g., children's centres) and charitable organisations, providing support for local families and local community-led social support projects.

Target population Target participants were caregivers over 18 years and their children aged 10–24 months and early years practitioners. Families facing high levels of socioeconomic disadvantage were prioritised.

Participants A total of 49 families (22 of these were in the high disadvantage group) and 19 facilitators, participated across all cycles. For the full video-feedback programme, there were 35 families (18 of these were in the high disadvantage group) and 13 facilitators.



Intervention Parents received a book pack with four books to use throughout the programme. They had an initial welcome call with their facilitator before accessing five online book sharing skills sessions. Each week, parents were encouraged to complete a skills session in their own time and engage in daily book sharing interactions with their child. Additionally, parents in the full programme had up to three video calls with their facilitator, in which they received personalized video-feedback, aiming to celebrate and reinforce parents' positive book sharing behaviours and interactions with their child.

Data collection Parents and facilitators completed a demographics questionnaire and were invited to complete an online interview or survey to explore their experiences with all aspects of the programme. Parents also completed preand post-intervention questionnaires and facilitators completed video call logbooks.

Findings

Overall. Between January and August 2022, 35 families registered to participate in the full programme (including video calls), 29 families started the intervention and of these 23 (79%) went on to complete at least one book sharing skills session, with 19 (66%) completing all 5 sessions. Most (78%) of these families completed at least two video calls

Research question 1: Is Playtime with Books acceptable and feasible for families?

Parental engagement with the programme was good overall and parents gave very positive feedback, indicating high acceptability and feasibility of the programme. Most families who started the programme engaged well with the skills sessions and video calls; with 62% completing at least three skills sessions and two video calls. There was no obvious pattern of participation based on levels of socioeconomic disadvantage. This level of completion is better than most face-to-face parenting programmes (see Axford et al. 2012).

Parents valued the majority of the programme elements, with the video-feedback being particularly appreciated. Parents accounts suggested that they value the collaborative, strengths-based, and child-centred approach that characterises the video-feedback model which they said helped to build their confidence. This acceptability matters because families facing economic hardship may be more likely to experience interventions that adopt deficit approaches (Smith, 2019). Parents also perceived the programme to be beneficial for them and their child noting positive changes in the way they share books together and how it had supported their child's development. Areas for improvement were highlighted for future testing of the programme (e.g. ensuring all the book sharing skills are appropriate for younger children).

Research question 2: Is Playtime with Books acceptable and feasible for early years services?

For those who delivered the programme, engagement with the intervention was high and they found it acceptable and feasible to deliver, appreciating the benefit it has for families in their areas, especially those who cannot access face-to-face sessions. Facilitators particularly appreciated the video calls and feedback, which they recognised as helping to support parents' book sharing practice and build their confidence with the skills. Some of the facilitators reported barriers to delivery including the time and resources required and having protected time to deliver the programme within their roles.

Key Learnings

- 1. The online Playtime with Books programme had high levels of acceptability and is feasible for families to complete, suggesting that the programme may be a viable way to widen access to early support.
- 2. Families report that the online book sharing programme works well, that they shared books more frequently with their child, they felt more confident doing so, their child enjoyed sharing books, and that they had observed positive changes in their child's language since participating in the programme. This supports our theory of change and the notion that the programme works in a similar way virtually as it does in the face-to-face delivery model.
- 3. The video-feedback sessions were positively received by families, indicating that this element is a promising addition to the programme.
- 4. There were challenges for the facilitators in finding time to deliver the programme. Although facilitators viewed the programme positively, many struggled to fit in the time required, indicating that effective scaling will benefit from adaptations that include further efficiencies alongside protected time for practitioners to deliver the programme.
- 5. Rapid-Cycle Design and Testing offers a rigorous and valuable approach to adapting effective interventions for virtual delivery. Through continuous learning, we were able to use insight from stakeholders to drive refinements to the programme to improve its scalability.

Conclusions

Given the persistent attainment gap between children facing disadvantage and their peers, it is imperative that we explore options for improving skills such as early language development at scale. We have demonstrated the feasibility of virtual delivery of a well-established approach to building early language, which is acceptable to families from a range of backgrounds (including those who are traditionally less well reached by digital innovations such as families facing high levels of socioeconomic disadvantage). Playtime with Books offers the potential for enhanced home learning environments for young children at scale and at lower cost. We believe that an urgent and productive next step is to test the potential for the programme to be integrated into local and national delivery pathways.



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1. Introduction: The case for early book sharing

1.1 Inequalities in children's early skills

Socioeconomic inequalities in children's skills emerge long before school entry (Asmussen et al., 2018). Early gaps are particularly marked in children's language development, the strongest predictor of school readiness and later school success, which places children at risk of later employment and mental health difficulties (Hoff, 2013; Law et al., 2017). These inequalities are driven in part by the constellation of risk factors that poverty often confers, which can undermine a family's ability to provide care as optimally as they would like (Oppenheim & Milton, 2021). Based on the Family Stress Model economic pressure can contribute to parental distress and impinge on the mental space and effort that parents have available for responsive parenting, both of which can affect parenting practices (see Oppenheim & Milton, 2021). In this way poverty can affect the quality of the home learning environment which includes access to books, and the provision of responsive and stimulating interactions (Kelly et al., 2011; Melhuish et al., 2008). Indeed, up to half of the socioeconomic disparities in children's skills are explained by the influence of poverty on families' abilities to provide frequent, highquality caregiver-child interactions (see Kalil, 2015; Kiernan & Mensah, 2011).

Importantly, the relationship between poverty and the home learning environment is complex. Despite constrained resources, many families facing socioeconomic disadvantage do provide an enriched and supportive home learning environment (Melhuish et al., 2008; Phillips & Lonigan, 2009; see also Cooper, 2021). When families can provide stimulating learning opportunities in the home this can act as a protective factor - buffering the impact of socioeconomic disadvantage on children's development (Sylva et al., 2004, 2012). Thus, equitable access to support for the home learning environment is imperative for reducing disparities in families' caregiving experiences and children's outcomes. Programmes that support high-quality book sharing interactions provide a powerful route to achieving this (Pace et al., 2017).

1.2 An urgent time for early childhood

The need for equitable access to support has never been more pressing. The recent COVID-19 pandemic has dramatically disrupted children's learning opportunities in early years settings and at home (see Oppenheim et al., 2022). This includes interactions with books, with strikingly fewer parents of young children from birth to 5 years reporting reading every day in 2021 (53%) than in 2019 (66%) (Palmer-Crew & Clark, 2021). Additionally, fewer 2-year-olds met their expected level of development in 2021 compared with 2019, and children starting school during the pandemic were reported as having significantly lower levels of school readiness skills, needing more support, and experiencing less progress in language and literacy development, than previous cohorts (Bowyer-Crane et al., 2021; Nash et al., 2021; Tracey et al., 2022). These learning gaps and disruption to the home learning environment were disproportionately experienced by children facing socioeconomic disadvantage (Andrew et al., 2020; Nash et al., 2021; Tracey et al., 2022). Concerningly, early years providers are reporting a continued impact of the pandemic on new babies' development and increased demand for specialist speech and language support (Hogg & Mayes, 2022; Ofsted, 2022). These pandemic-related impacts, coupled with the cost-of-living crisis, are likely leading to a perfect storm of risk for early childhood, both in the here-and-now of children's lives and as enduring impacts on children's life chances.

1.3 Book sharing: A powerful context for learning

Book sharing is a critical part of the home learning environment and an ideal context to promote children's language learning (Asmussen et al., 2018). It provides an intimate space for parents and children to enjoy reciprocal interactions and shared attention. During book sharing with picture books the adult pays attention to what the child is interested in, follows this interest, and builds on it in an emotionally supportive way that actively involves the child (see Murray et al., 2022). This is in contrast with the more passive activity of a parent reading a book to their child. High quality book sharing interactions are characterised by the adult pointing to and naming and expanding on what the child is interested in, asking questions and making comments matched to the child's ability, linking the book content to the child's own experiences, and using an animated voice and gestures to encourage the child's interest (see Murray et al., 2022). According to developmental science these features of book sharing are crucial components that underpin language development (Murray et al., 2022; see Figure 1).

Interventions that work with parents to support high quality book sharing have been shown to promote children's learning and development. These interventions are based on principles from sociocultural theory that children's learning is supported through interactions with caregivers that are attuned to the child's cues and interests and developmental level (Dowdall et al., 2020). Interventions often involve sessions for parents that provide guidance on high quality book sharing techniques; role play or feedback with an instructor; and summary materials such as tip sheets. A meta-analysis of 19 randomised controlled trials (RCTs) of book sharing programmes, which included families in disadvantaged communities, found large effects for improvements in the quality of caregiver book sharing skills and children's expressive and receptive language (Dowdall et al., 2020).

There is mixed evidence as to whether book sharing also benefits children's attention and socioemotional skills (Cooper et al., 2014; Dowdall et al., 2021; Murray et al., 2016; Murray et al., 2022; Vally et al., 2015; Xie et al., 2018), which alongside language, are central to children's school readiness.

Although book sharing interventions are impactful across the age span of early childhood (0-6 years; Dowdall et al., 2020) interventions may be especially valuable at 1-2 years. This is the age at which joint attention and language develop rapidly; and when caregivers' shared reading and children's language development reinforce each other, shaping subsequent interest in books and language outcomes (Raikes et al., 2006). A positive start with books can have lasting influences on children's wellbeing; for example, children who experience a good home learning environment in the preschool years are more likely to have better academic and socioemotional outcomes at age 14, and report greater confidence in their academic ability and school enjoyment through to age 16 (Sammons et al., 2014; Sylva et al., 2012). Thus, early interventions that facilitate families in having enjoyable interactions with books can help to set children on strong pathways for their development and learning.



1.4 The need for next generation early interventions

Despite the strong evidence for the effectiveness of book sharing, delivering such approaches to the necessary quality outside of a highly controlled experiment has proven challenging (Axford et al., 2020; Gupta et al., 2021; Shonkoff, 2017). Understanding more about the challenges in delivering these programmes in real world contexts, and how to overcome them, is critical to considering how more families might benefit from book sharing interventions. Central to the challenge of implementing evidence-based interventions at scale are fundamental design issues and oversight of the context and complexity of implementation (Lyon & Koerner, 2016). Although early interventions are carefully developed, they often require specialised workforces, training and/or high-resource delivery, which means they are limited in the number of families that can benefit from them (Lyon & Koerner, 2016). For effective programmes to be more viable and sustainable at scale, they need to be aligned with service providers' goals, be feasible for services to deliver, and fit into practitioners' existing workflows.

Programmes can also struggle to reach families who experience the highest levels of disadvantage; those who are disproportionately affected by structural, economic, and practical barriers to access (Lingwood, Levy, et al., 2020). These include logistical and practical barriers to accessing centre-based supports such as lack of transport, child-care, time, and/ or inflexible work schedules (see Kalil, 2015; Lingwood et al, 2020). Families may not feel confident or comfortable in educational spaces (e.g., libraries) and may not want to engage in programmes where they feel targeted based on their demographic profile, especially where programmes focus on reading (see Lingwood et al., 2020). For example, Vanobbergen and colleagues (2009) found that families participating in a book gifting scheme ignored a tip sheet on how to read as they reported feeling judged on their own reading abilities.

Delivery models that take didactic approaches may also inadvertently be perceived by families as taking a 'deficit', rather than strengths-based, approach to parenting. This underscores the need for models that encourage equitable and collaborative relationships between practitioners and caregivers, that emphasise the child's needs through the interaction itself (Smith, 2019).

1.5 Transforming an effective intervention for virtual delivery

New approaches to early intervention must be responsive to families' priorities and needs and fit into family life, for example, by taking place at feasible times and locations, (Lingwood et al., 2020). This is especially urgent in the wake of current crises; frontline services have already needed to make major adaptations to delivery, in light of the pandemic and reduced resources. and imperatives for cost-effective service delivery are strong (Martin et al., 2020). Virtual delivery may transform the way that effective interventions are delivered and increase their potential reach, achieved by reducing delivery costs, barriers to access for in-person support, and stigma (Harris et al., 2020). Careful yet efficient adaptation and testing of programmes in new delivery modalities is needed to ensure that interventions retain effectiveness and widen, rather than further constrain, access for families facing disadvantage.

In this study we used Rapid-Cycle Design and Testing (see FNP & DSDL, 2020; Green et al., 2021) to develop and test a remotely delivered (web-based) book sharing programme, called Playtime with Books (PwB). Rapid-Cycle Design and Testing is particularly suited to adapting and optimising interventions for different delivery contexts and scaling through its use of quick, iterative tests that foreground learning and potential solutions based on usability. The PwB programme is based on a proven, effective face-to-face intervention (see (Cooper et al., 2014; Dowdall et al., 2021; Murray et al., 2016, 2022; Vally et al., 2015) that aims to promote and support young children's (aged 10-24 months) language and development. The original book sharing programme was initially developed and evaluated among low-income township dwellers in South Africa, has an established evidence base, and has been adapted for wider delivery in several contexts (UK, Sweden, Italy, Brazil, Colombia, India). The intervention is ideally suited to combining guided remote parent training with virtual contact between caregivers and a programme facilitator, thus retaining personal and individualised support - a key component of the original programme and of effective virtual interventions (Harris et al.. 2020).

This work is central to policy and practice priorities in public health and early education and associated speech language and communication pathways (e.g., Healthy Child Programme, Development Matters, Start for Life, Talk with Me), which emphasise the importance of the home learning environment and the need for modern, virtual services that widen access and are designed around the needs of the family.

1.6 The Playtime with Books (PwB) study: Aims and objectives

The goal of this study is to provide an evidence-based book sharing programme that can be delivered remotely to families to address socioeconomic disparities in children's early learning and language acquisition. To do this, the RCDT methodology is used to adapt a proven face-to-face book sharing intervention for children aged 10-24 months for virtual (webbased) and scalable delivery. We situate this innovation in the principle of participatory design: working with and for families and service practitioners.

Key objectives:

- 1. To adapt Murray and Cooper's evidencebased Shared Picture Book intervention into a five-session virtual programme, delivered through an online digital e-learning platform.
- 2. To test the intervention by using RCDT to evaluate the feasibility and acceptability of the intervention's design and delivery for families and early years practitioners.

2. Method

The process by which the intervention was adapted and tested is outlined in the subsequent sections. The study was granted ethical approval by the Faculty of Education, University of Cambridge.

2.1 Stage 1 - Translation to online and virtual delivery

In its original form, the Shared Picture Book intervention has five manualised sessions that are delivered face-to-face by a trained facilitator to parents in small groups (4-8 parents and their children) (e.g., see Dowdall et al., 2017). Sessions start with a presentation including video examples and modelling that illustrate the principles of sensitive book sharing, e.g., following the child's lead, encouraging their participation, facilitating their handling of the book, elaborating on the picture content, and linking the book content to the child's own experience. The presentation is followed by group discussion about the 'book of the week' (each week, families are provided with a new book to use during book sharing interactions at home). Next, each caregiver receives individualised guidance as they engage in book sharing with their child.

In the current study, this model of delivery was adapted for a web-based platform, meaning that families could access the five intervention sessions online at home in their own time. Parents also received up to three individualised video calls with a programme facilitator, providing reflection and video-feedback to positively reinforce their use of book sharing techniques and skills. Throughout the report we focus on the learning and insight gathered about the delivery and receipt of the full PwB programme which includes both the skills sessions and individualised video calls¹.

Book sharing skills session development

Content from the five parental training sessions of Murray and Cooper's original Book Sharing programme was adapted for online delivery in the PwB programme. The content authoring software package iSpring (Microsoft, 2001),

which operates as a Microsoft PowerPoint addon, was used to create engaging and interactive e-learning content that was incorporated into the learning materials. This included audio voice overs and videos of a facilitator guiding parents through the material, exemplar videos of real parents and children engaging in book sharing (modelling each week's key book sharing techniques), animations, and interactive exercises and quizzes to encourage parent's engagement with the content and consolidate their learning. All sessions were hosted via the online Learning Management System (LMS) Moodle Cloud (Moodle Cloud; www. moodlecloud.com), which served as the user interface through which participants accessed the weekly e-learning sessions.

Addition of video-feedback calls

A key component of the original face-to-face intervention was the individualised guidance and feedback that parents received from a facilitator during the group sessions. To emulate this one-on-one interaction between a parent and facilitator in the online PwB intervention, video-feedback calls were incorporated throughout the programme. These sessions aimed to promote parental sensitivity and reinforce parents' use of positive book sharing skills. Parents could engage with up to three video-feedback sessions across the PwB programme.



¹ Throughout the report where we refer to the Playtime with Books (PwB) programme and/or the 'full programme' we are referring to this version of the programme that included skills sessions and up to three video calls that included video-feedback.

Ahead of each video call, parents were asked to send a brief video clip (under 5 minutes long) of a book sharing interaction between them and their child via the secure online file sharing platform WeTransfer. Each video call lasted approximately 30-40 minutes, during which parents had an opportunity to talk with a facilitator about their experience with the programme, including how they found the current week's book sharing interactions with their child and the key skills they had been practicing. They also viewed the video clip together, during which the facilitator would pause the video to highlight positive moments (e.g., interactions where the parent used book sharing skills successfully).

Book packs

Each participating family received a physical PwB pack containing four 'books of the week' (each corresponding to one of the first four skills sessions) and five summary cards (each providing a simple summary of each session's key book sharing skills). A picture of the PwB pack and a list of books are provided in Appendix 1. The book packs were delivered to families using a secure (tracked) UK Royal Mail delivery service.

Theory of change

The development of PwB was guided by the intervention's theory of change (see Figure 1 and appendix 2) and existing approaches to programme adaptation. The theory of change sets out how Playtime with Books works and the changes that we expect to see as a result of families' participation in the programme. The theory of change helped to guide the team on what adaptations could be made to the programme by identifying core components of the original face-to-face programme that needed to be retained to preserve the intervention's efficacy; alongside new assumptions and improvements relating to the virtual delivery. The 'strategies' panel shows the inputs involved in the adapted version of the intervention This helped the team to specify new assumptions specific to online delivery (e.g., access to internet-enabled devices, digital literacy) and elements that were designed to foster an engaging virtual programme (i.e. interactive elements). The 'targets panel sets out how the intervention works and what changes the programme aims to bring about in order to realise benefits for parents and children. These benefits are detailed in the 'outcomes panel. The theory of change helped to guide what data should be collected to test whether the programme was working as expected.

STRATEGIES

- · Facilitator training
- · Welcome call with parents/welcome video
- · Sending books and summary cards
- · Dedicated online space (moodle) for resources
- · Online programme content
- · Online programme interactvie elements
- · Video feedback/feedback calls
- Reminder messages

TARGETS

- · Trusting and empathetic facilitator/parent
- · Parents' motivation and engagement
- Regular book sharing interactions
- Parents' knowledge of book sharing skills
- Parents' skills during book sharing (quality of interactions)
- · Parents' confidence/selfefficacy
- Increased joint attention and reciprocity
- · Children's interest and enjoyment of book sharing

OUTCOMES

Parent Outcomes

- Book sharing becomes embedded in home routine
- Increase in sensitive responding and reciprocity during book sharing
- Increase in general sensitive responding

Child Outcomes

- Language (receptive and expressive)
- Socioemotional
- Attention
- Cognition
- Interest in books

- · Parent educational experience
- · Parent digital literacy
- Engagement and openness to change
- Baseline skills

Child moderators

- · Baseline skill/development
- · Interest in books

Delivery moderators

- · Facilitator buy in/engagement
- · Facilitator's digital fluency and access to technology
- Therapeutic alliance
- · Programme fidelity

Figure 1. Playtime with Books Theory of Change.

2.2 Stage 2 - Rapid-Cycle Design and Testing (RCDT)

In collaboration with the Dartington Service Design Lab, we used RCDT to translate the PwB intervention for virtual delivery, and learn how to optimise its reach, implementation at scale and acceptability. RCDT is a flexible and agile evaluation approach that draws on established research methods from implementation science, service design and evaluation. It enables programme stakeholders to practice continuous learning and adaption by using fast, smallscale test cycles to gather various data, learn, and make informed decisions about how to improve programme design and delivery and participants' experiences. One cycle includes five well-structured steps: (1) Assess, (2) Design, (3) Implement and Observe, (4) Analyse and Learn, and (5) Pause and Decide. The number and duration of cycles in a study are based on learning and improvement needs (Green et al., 2021). In this study, we ran three cycles over 13 months (each cycle overlapped throughout the study).



Overview of cycles

Cycle 1

In the first cycle, we applied the first step of RCDT - Assess - by holding a workshop to gather insights from parents about their needs and priorities. Specifically, we established consensus regarding the programme's purpose, characteristics, and desired outcomes; involved parents in the production of PwB's theory of change, learning agenda, and research questions; jointly considered ways to immediately improve PwB's accessibility; and learned how to make families' experience in PwB more meaningful and engaging, and to help them successfully fit participation into their daily life.

Key learnings from this Assess step included the importance of emphasising to parents from the outset that the use of video-feedback in PwB is to highlight positive moments in the parent-child interactions, primarily what the child is doing and experiencing. Stating this helps to reassure and encourage parents about participating in this component of the programme. This and other learnings from the workshop were used during the Design step to refine the design of the virtual PwB programme materials, protocol for video-feedback sessions and facilitators' training manual. The Assess and Design steps lasted four months.

Our learning needs in Cycle 1 focused on addressing research question 1: Is Playtime with Books feasible and acceptable to families? Three parents and one facilitator participated at this point in the programme. Over three months, we applied the Implement and Observe step and the Analyse and Learn step to implement the programme (including recruiting and delivering sessions to families) and gathered and analysed initial evidence about the usability and feasibility. At the end of the three months, we reflected on the evidence and decided how to improve the programme for further implementation and scaling in the next cycle (Pause and Decide step).

Cycle 2 and Cycle 3

Cycle 2, which lasted 4 months, included a Design step to incorporate the improvement decisions from Cycle 1 - beginning Cycle 2 with an Assess step was not necessary as there were no suggested changes to the purpose. priorities, learning agenda or programme theory by this point in this study. As with Cycle 1, Cycle 2 applied the Implement and Observe and Analyse and Learn steps to further address research question 1 and, additionally, research question 2: Is Playtime with Books feasible and acceptable for early years practitioners to deliver? Specifically, this second cycle aimed to provide understanding of whether PwB could be facilitated successfully by trained early years practitioners working in children's centres and charitable organisations (e.g., early learning practitioners, parent and community organisers) providing parenting support in community settings across the UK. Therefore, these steps included a two-day facilitator training with seven practitioners across four sites. and the recruitment of 18 additional parents through local recruitment processes across the sites. Evidence and learning from the four months of testing were used to inform further improvement decisions.

The final cycle (Cycle 3) lasted five months and included a Design step to incorporate the improvement decisions from Cycle 2, followed by the remaining three steps of a RCDT cycle. During Cycle 3, an additional six facilitators were recruited and trained across three sites and 14 more parents were recruited locally to further test research questions 1 and 2. This cycle also included the option for participants to take up only the self-directed skills sessions and to replace the video-feedback with a telephone call² (see Section 3.5). The ending of this cycle was also the end of testing including the final reflections, sensemaking and recommendations for PwB.

The number and duration of cycles were decided at the start of the study by the research team based on the two research questions and the planned study size and duration. Over 13 months, there was a total of 49 participants in the three cycles of testing.

2.3 Recruitment

The aim was to recruit a target number of 30-40 families (parents/caregivers and young children aged 10-24 months) across the three cycles.

Inclusion criteria for participating families:

- 1. Participating caregiver aged ≥ 18 years
- 2. Child aged 10 24 months at screening
- 3. Have access to the internet and a device with a camera (e.g., mobile phone, tablet, or laptop)
- 4. Sufficient fluency in English to access and engage with the programme

Families facing high levels of socioeconomic disadvantage, who may be disproportionately affected by barriers limiting their access to early intervention provision, were prioritised. For the purpose of this study, several proxies of socioeconomic disadvantage were used to index families as being in a high socioeconomic disadvantage group (referred to as 'high disadvantage group' going forward) or a general socioeconomic group. Criteria for the high socioeconomic disadvantage group included a lower annual household income (< £18,000), being in receipt of benefits (e.g., universal credit, child benefit, child tax credit, etc.) or having a lower educational attainment level (GCSE equivalent or under). Caregivers of children with severe intellectual, language, or developmental delays that were sufficient to preclude participation in the intervention, were excluded from the study.

Early years practitioners were also recruited as facilitators to deliver the PwB programme to the families.

² The report focuses in the main on the full PwB programme which includes video calls, unless specified that we are drawing on learning from the self-directed and telephone call versions of the programme.

Recruitment setting

Families and early years practitioners were recruited from six sites across England and Wales, including the East of England (Peterborough and Cambridge), South West London (Camberwell), North East London (Haringey), North East of England (Tyneside), and North Wales (Gwynedd). The sites included local council early years services (e.g., children's centres), charitable organisations providing support for local families and local communityled social support projects. Services provided a range of supports including drop-in sessions, weekly parenting workshops, stay and play sessions and parenting courses. Parents were offered a £20 voucher for completing research activities before and after participating in the programme as a thank you for their time and participation.

Recruitment procedure

Families Materials, including a PwB programme flyer and recruitment guide were distributed to the recruitment sites. The flyer summarised the programme (i.e., what participation would involve for families) and provided the contact details of the research team. Physical copies of the flyer were distributed to children's centres, nurseries, and preschools local to the recruitment sites. Digital copies of the flyer were also disseminated via the social media profiles of children's centres (e.g., Facebook). Families were also recruited directly via invitations from recruiters in the recruitment sites. The flyers and invitations included a web-address and QR code that families could use to register their interest through an online form. Practitioners encouraged and supported parents to complete the online form either at the recruitment site or at home.

The registration of interest form requested information to determine a family's eligibility for inclusion, including their child's age, whether they had access to a device with a camera and internet connection and whether they met our priority characteristics in terms of annual household income, whether they received any benefits and their educational level. Respondents were informed that their responses would only be used to determine eligibility and their personal information would remain confidential and stored securely according to current UK GDPR guidelines.

Eligible families were then sent an information pack electronically (via email), which included a study information sheet, consent form, demographics questionnaire, and pre-programme questionnaire.

Following informed consent, families were enrolled in the programme and sent a PwB book pack and a voucher as a thank you for their participation.

Facilitators Managers of the children's centres across the recruitment sites nominated staff members working as early years practitioners as potential PwB facilitators. The nominated practitioners were given information about the programme and what participation as facilitators would involve. Practitioners who agreed to participate completed a consent form and demographics questionnaire. Some facilitators already knew and worked with the families that they were then allocated to deliver the programme to, whilst for other facilitators, the families were new to them.

2.4 Procedure

Families' Procedure

Welcome call Once caregivers were enrolled in the PwB intervention, they were contacted by their assigned programme facilitator to arrange an initial welcome video call. Where possible, families were matched with a local facilitator. During the welcome call, the facilitators introduced themselves and talked about what participation in the PwB programme would entail. Parents also had the opportunity to ask questions or discuss any concerns they might have with their facilitator.

Weekly book sharing skills sessions and daily book sharing Parents received personal login details to gain access to the web-based e-learning management system Moodle Cloud (www.moodlecloud.com), which hosted the five book sharing skills sessions. When parents logged into the dedicated PwB Moodle Cloud interface for the first time, they were able to access a guidance document about the programme and the first skills session. See Figure 2 for an example of the Moodle interface.

Although parents had access to the Moodle Cloud platform throughout the study, the skills sessions were only available sequentially as and when it was time to complete them (e.g., during week one of PwB, parents could only see the first skills session, while the other four remained hidden until later in the programme). Each week, parents were encouraged to complete a skills session and engage in daily book sharing interactions with their child, with a specific focus on applying and practicing the key book sharing skills and techniques introduced that week. While parents were encouraged to complete each session within one week, if possible, they were also advised that they could take more time if needed.

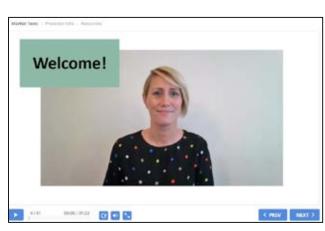
Each of the five skills sessions contained a slide deck containing the PwB programme content and materials (including engaging and interactive media such as videos, audio narration, and exercises). The first four sessions introduced a total of 12 key book sharing skills (three per session). The fifth session summarised all the skills. The programme content was presented using colourful

and dynamic visuals to promote parents' engagement with the materials (see Figure 2 for examples). Interactive exercises and guizzes were incorporated throughout the sessions to help parents consolidate their learning, as well as example video clips of real-life parentchild book sharing interactions that modelled each week's three key skills. Parents were free to complete each skills session in one sitting or in multiple sittings (their progress would automatically be saved if they stopped/quit the session, meaning they could rejoin later and pick up where they left off). Parents could complete the sessions at their own pace, having the options to pause, replay, or go back to any slide. Each session, if completed in one go, would take approximately 30 minutes, but the duration depended on the pace and activity of each parent. Appendix 1 provides visual depictions of the programme elements, the book packs provided to parents, and a breakdown of the skill sessions and their corresponding books and themes.

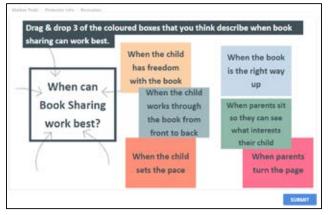




1a. Interface of the Moodle Cloud



1b. The skills sessions' narrator introducing the programme



1c. Example of an interactive quiz



1d. Example of a skill introduced in the session

Figure 2. Examples of the content in the skills sessions

Home video clips of parent-child book sharing interactions During the programme, parents were asked to record three short video clips (under 5 minutes each) of a book sharing interaction between themselves and their child. Typically, facilitators requested a video after parents completed skills sessions 2, 4, and 5 (though this suggested timeline could change at the discretion of facilitators, if needed, to accommodate parents' schedules).

Video calls between parents and facilitators

Parents had up to three video calls with their facilitator via a video-conferencing platform such as Zoom or Microsoft Teams. During each call, parents could share any challenges they faced, or concerns they had, whilst participating in the PwB programme and trying out book sharing for themselves. Another purpose of these calls was to provide parents with video-

feedback on the video clips they shared, with the aim of highlighting and reinforcing parents' positive book sharing behaviours and interactions when engaging with their child. The facilitator paused the video at key times in the clip, to draw the parent's attention to positive moments (e.g., where a parent had used one of the key book sharing skills correctly and/ or where the child looked happy and gazed directly at the parent). Facilitators watched the video clips and prepared their video-feedback messages at chosen time points, prior to the video calls with the parent. When video clips were not provided by a parent on time, the video calls would either be postponed to give the parent more time to record a clip or the video call would go ahead without the videofeedback element.

Facilitators' Procedure

Facilitator training Facilitators completed two half-day training sessions (approximately 8 hours in total), delivered (live) through a videoconferencing platform. Both sessions were recorded for facilitators who were unable to attend any part of the training. The training was delivered by a clinical researcher in the PwB research team who has extensive experience training facilitators in other video-feedback interventions that promote positive parenting (Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline; e.g., O'Farrelly et al., 2021). Prior to the training, facilitators were granted access to the PwB Moodle Cloud platform and tasked with completing all five book sharing skills sessions.

The training sessions centred around five key themes, including:

- Background information, study objectives, and an overview of the PwB programme
- 2. An overview of the book sharing skills introduced in the online skills sessions
- 3. Background information on the benefits of video-feedback approaches for promoting positive caregiving
- 4. Guidance on how to prepare the videofeedback in advance of the video calls with parents
- 5. Guidance on how to deliver videofeedback during the video calls

Facilitators were also sent digital (and physical, upon request) copies of the PwB programme training manual, which covered the training content in more detail. Each facilitator received individual supervision and support from the clinical researcher for their first family.

Administrative tasks Facilitators were responsible for several administrative tasks to ensure smooth and successful programme delivery. The tasks included arranging the welcome call, preparing video-feedback messages for the video calls, scheduling of the various contact points between facilitators and

parents was communicated via emails, text messages, or phone calls.

The welcome call took approximately 15 to 20 minutes and served to (1) formally welcome families into the PwB programme and give facilitators a chance to introduce themselves and the programme, and (2) build rapport between families and facilitators.

Facilitators prepared scripts of messages for the video-feedback element of the video calls. They did this each time they received a video clip from a parent, which occurred up to three times per parent throughout the programme. It took facilitators approximately 1 hour to prepare each script. For their first family, facilitators attended a supervisory session with the clinician in the research team, which lasted approximately 30 minutes. Facilitators were offered a total of three supervision sessions for their first family. The facilitators and the supervisor used this time to review the drafted script, discuss challenges that the facilitators may have faced, and work together to improve the script if needed.

Facilitators spent approximately 6.5 hours on their first cases including supervision and this reduced to 5 hours on subsequent cases (or about 1 hour a week).

2.5 Data collection and analysis Families

Questionnaires Parents completed a demographics questionnaire and pre- and post-intervention questionnaires via Qualtrics. The demographic questionnaire sought details relating to the caregiver's employment status. ethnic background, education, benefit use, and their relationship with the child. The preintervention questionnaire included questions about the frequency of parents' existing book sharing practices and about the type of other interactions that they engage in with their child. There were also items on parental self-efficacy during interactions with their child (adapted from the Self-Efficacy for Parenting Tasks Index -Toddler Scale; (Coleman & Karraker, 2003). The post-intervention questionnaire was identical to the pre-intervention questionnaire, except that it included additional questions about caregivers' thoughts about the PwB programme and how it was delivered. Data were analysed descriptively.

Video clips The video clips submitted by parents (via the secure file-sharing platform WeTransfer; www.wetransfer.com) were saved in an encrypted folder that only the research team could access. The facilitators saved the video clips securely on their work devices and deleted the video clips after each video call.

Participant experience interview and survey

Participating families, including those who withdrew at any point during their participation and those who only managed to complete some but not all parts of the programme, were invited to complete an online interview. The interview took place after parents completed the post-questionnaire. The interview was semistructured (devised by the research team; see Appendix 3) and explored parents' experiences with, and reflections about, all aspects of the PwB programme. The interview probed parents' expectations when starting the programme and included questions about the online format. e-learning skills sessions, book sharing skills, selection of books in the book pack, duration of the programme, recording and sending the video clips, video calls and video-feedback. For families who did not complete or who withdrew from the programme, questions exploring their reasons for not participating further. Parents who could not or did not wish to be interviewed were given the opportunity to share their experience through an online survey (Appendix 3) that included similar questions to the interview. Interviews were transcribed and analysed using principles of rapid qualitative analysis (Vindrola-Padros & Johnson, 2020). Transcripts were first parsed into pre-defined deductive categories using an Excel spreadsheet (e.g., parents' perceptions of the programme's structure and content) after which categories were reviewed for patterns and where appropriate themes were identified that spoke to commonalities in parents' and facilitators' experiences.

Facilitators

Demographics The facilitators' demographic questionnaire included questions about their qualifications, years of experience in early years, and prior experience with interventions similar to the current programme.

Video calls logbooks Facilitators were asked to complete a logbook following each video call with families to (1) record details about the discussion and note any questions that parents had, and (2) record information about their own experiences of conducting the video call session. Questions on the feasibility of preparing and delivering the video-feedback to parents were also included (see Appendix 4).

Participant experience interview and **survey** After delivering the PwB programme to a parent (or parents), facilitators were invited to an online interview with the research team. The interview was semistructured and explored facilitators' experiences with various aspects of the programme, including the training, format of the programme, preparation and delivery of video-feedback, video calls, and working with parents (see Appendix 4). The interviews were also transcribed and analysed using principles of rapid qualitative analysis as described above. Facilitators who were not able, or did not wish, to attend the interview were asked to complete an online survey that included similar questions to the interview.

3. Findings:

Engagement and key programme changes

3.1 Families' characteristics

Forty-nine families participated in the study across the three cycles. Twenty-two families (45%) were in the high disadvantage group and 27 (55%) were in the general socioeconomic group. Table 1 presents the characteristics of the families who participated in each of the different versions of the programme. Thirty-five families registered to participate in the full programme. Of these families, parents were predominantly female (97%) with a mean age of 32.2 years (SD=5 years). Just over half of parents

(n=19, 54%) reported having degree-level education or higher, 10 said they have an A-level or equivalent, three reported having GCSE-level education or lower, and the remaining three did not disclose their education level. Most parents identified as being from White racial or ethnic background (n=22), one identified as being from Black racial or ethnic background, and 12 identified as being from another racial or ethnic background. Half of families (n=18, 51%) were categorised as being in the high disadvantage group.

Table 1. Characteristics of participating children and parents

	Full programme N=35	Telephone Version N=6	Self-directed version N=8
	N (%/SD)	N (%/SD)	N (%/SD)
Child characteristics			
Sex (female)	19 (54)	3 (50)	6 (75)
Sex (male)	16 (46)	3 (50)	2 (25)
Age (months), mean (SD)	14.9 (4)	16.8 (6.2)	17.4 (3.5)
Parent characteristics			
Sex (female)	34 (97)	5 (83)	8 (100)
Sex (male)	1 (3)	1 (17)	0 (0)
Age (years), mean (SD)	32.2 (5)	27.2 (6.8)	34.6 (6.3)
Racial/Ethnic background			
Black	1 (3)	0 (0)	0 (0)
White	22 (63)	6 (100)	6 (75)
Another racial/ethnic background	12 (34)	0 (0)	2 (25)
Employment status			
Employed	16 (46)	4 (67)	6 (75)
Paid parental leave	3 (9)	0 (0)	1 (13)
Looking after home and children	13 (37)	1 (17)	0 (0)
Looking for work	3 (9)	1 (17)	1 (13)
Highest qualification			
GCSE or lower	3 (9)	4 (67)	0 (0)
A level or equivalent	10 (29)	0 (0)	1 (12)
Graduate	19 (54)	1 (17)	7 (88)
Prefer not to say	3 (9)	1 (17)	0 (0)

	Full programme N=35	Telephone Version N=6	Self-directed version N=8
	(%/SD)	N (%/SD)	N (%/SD)
Annual household income			
£9,000 or below	3 (9)	0 (0)	0 (0)
£9,001 to £18,000	4 (12)	2 (33)	0 (0)
£18,001 to £27,000	6 (17)	2 (33)	0 (0)
£27,001 to £36,000	5 (14)	0 (0)	0 (0)
£36,001 or above	12 (34)	0 (0)	7 (87)
Prefer not to say	5 (14)	2 (33)	1 (13)
Receive benefits			
Yes	18 (51)	3 (50)	0 (0)
No	14 (40)	2 (33)	8 (100)
Prefer not to say	3 (9)	1 (17)	0 (0)

3.2 Families' participation

Full programme

After registering and providing consent to participate in the full programme, the parents received a book pack and had a welcome call with their facilitator. Of the 35 families who registered, 29 received the welcome call with their facilitators and six families did not; two families withdrew before their welcome call due to time constraints; two families stopped engaging and were not reachable; and the other two families completed a self-directed version of the programme that only involved the skills sessions (see Section 3.5). Of these six families, four were in the high disadvantage group and two were in the general socioeconomic group.

Book sharing skills sessions

After the welcome call, 29 families were given access to the skills sessions to complete in their own time. Of these, six could not continue with the programme, three were unreachable and three could not participate due to time constraints/family circumstances such as family emergency and birth of sibling (three were in the high disadvantage group and three were in the general socioeconomic group).

Of the remaining 23 parents, 19 parents (66%) completed all the content in all five sessions, two parents completed four sessions, one parent completed three sessions, and one parent completed one session. Of the parents who completed at least three sessions, 11 were in the high disadvantage group and 11 were in the general socioeconomic group. Figure 3 presents the parents' engagement with the skills sessions.



Video calls

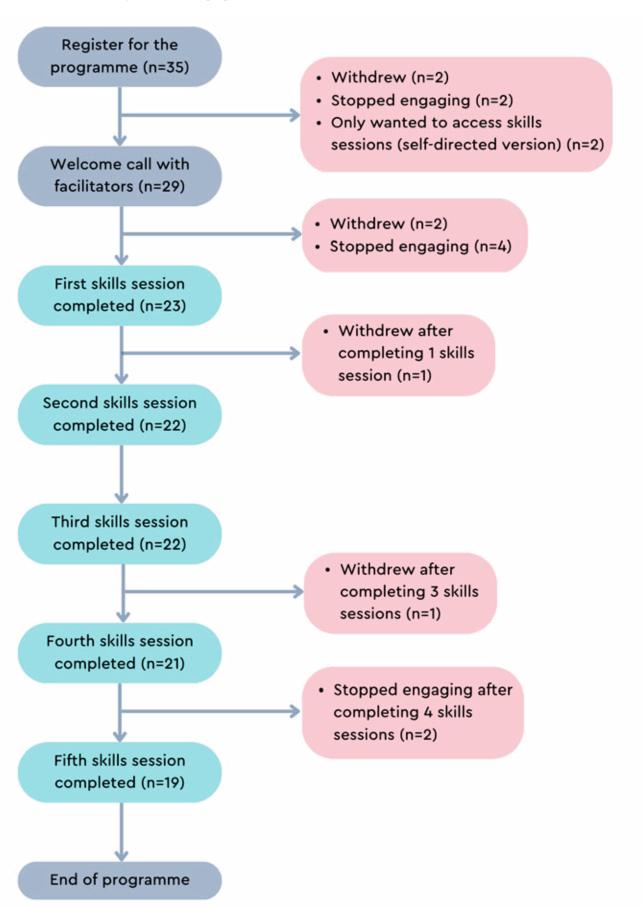
Twenty-three parents had the opportunity to join a video call with their facilitator (as they completed at least one skills session). Of these, 20 families (87%) completed at least one video call. Specifically, 15 families (65%) completed all three video calls, three families (13%) completed two video calls and two families (9%) completed one video call. For the five parents who received only one or two video calls, their facilitators were unable to complete further calls due to their availability and the term-time nature of their working. Three families were unable to complete any calls due to time constraints/ family emergencies. Of the parents who completed at least two video calls, eight were in the high disadvantage group and 10 were in the general socioeconomic group. Figure 4 presents the parents' engagement with the video calls (aside from their engagement with skills sessions which is presented in Figure 3).

Overall engagement with the programme

Given the formative nature of the evaluation, we did not specify at the start of the study what a minimum number of sessions or calls that would represent a good or sufficient level of participation in the programme. However, if we consider completion to be at least three skills sessions and two video calls (referred to as 'completed' going forward), then of those who had a welcome call (n=29) and started the programme, this would mean 18 (62%) 'completed'. Of 18 who completed, eight were in the high disadvantage group and ten were in the general socioeconomic group. Of the 11 who did not complete, six were in the high disadvantage group and five were in the general socioeconomic group. This indicates there was no obvious difference between the groups in terms of disadvantage. If we apply the same thresholds to all of the families who registered (n=35) then 51% of families could be considered completers; although it is worth noting that of the six families who did not do a welcome call, two of these families opted to move to the self-directed version of the programme (skills sessions only) and completed all five sessions.



Figure 3. Flow chart of parents' engagement with the online skills sessions



Register for the programme (n=35) Withdrew (n=2) Stopped engaging (n=2) · Only wanted to access skills sessions (self-directed version) (n=2) Welcome call with facilitators (n=29) Withdrew (n=4) Stopped engaging (n=4) · Only wanted to access skills sessions (self-directed version) (n=1) First video call completed (n=20) Facilitators could not proceed to do remaining video calls (n=2) Second video call completed (n=18) Facilitators went on summer break (n=3) Third video call completed (n=15)

Figure 4. Flow chart of parents' engagement with the video calls

Telephone and self-directed version

End of programme

Four out of six parents completed the telephone version, and five out of eight parents completed the self-directed version, which are similar completion rates to the full programme. Feedback from these parents was positive, reporting how they found the programme helpful and enjoyable.

3.3 Facilitators' characteristics

Nineteen early years practitioners from family service providers in Haringey, Camberwell, Peterborough, Cambridge, Tyneside, and Gwynedd were recruited and trained to deliver the programme across the three cycles. Table 2 presents the characteristics of six facilitators who completed a demographics form and

participated in the different versions of the programme. Thirteen of the facilitators were trained in the full programme version and six were trained in the telephone version (see Section 4.5). Table 3 presents the breakdown of facilitators based on the sites they were recruited from.

Table 2. Characteristics of participating facilitators

Facilitators' characteristics	Full programme	Telephone Version
	n=3	n=3
Professional background		
Play and early development officer	0	3
Researcher	1	0
Therapist	1	0
Community organiser	1	0
Years of experience in early years services		
4 years or less	1	0
5 to 10 years	2	0
11 years or more	0	3
Prior experience in delivering online or book sharing programmes		
Yes	2	2
No	1	1

Note. Missing information from 13 facilitators

Table 3. Participating sites and number of facilitators

Site	Participating facilitators (n=19)
Camberwell	2
Cambridge	5
Haringey	2
Peterborough	2
Tyneside	2
Gwynedd*	6

Note. The six facilitators from Gwynedd delivered the telephone version of the programme

3.4 Facilitators' participation

Of the 13 facilitators trained in the full programme, two withdrew before starting delivery with families (one due to a change in role, one left the service) and a further facilitator's families withdrew from the study. Ten facilitators were able to deliver the programme to families, supporting them in their participation of both the book sharing skills sessions and the video calls. The median number of families that each facilitator saw was 1.5 (range 1-4 families each).

Video calls

Figure 5 presents the flow of the facilitators' participation throughout the full programme. The 10 facilitators trained in the full programme who were able to complete delivery of the programme delivered it to 18 families altogether. Six (60%) of these delivered all three video calls with 13 families, two facilitators delivered two video calls with three families and two delivered one video call to two families. Of the four facilitators (40%) who delivered less than three calls, three were due to working term-time only and not having time to fit in all three calls before the summer holidays and the fourth was due to working part-time, making it difficult to find a mutually convenient time for the video calls with their parent.

Video-feedback

Of the 47 video calls conducted by the facilitators in Cycles 2 and 3, 44 included video-feedback (94%). All parents who received video calls were able to send at least two clips including the two parents who only received one video call, indicating their willingness for a second video-feedback call despite their facilitators not having the capacity. The three video calls that did not include video-feedback were evenly distributed across three families and were due to the parents not being able to send their video clips as scheduled. The parents reported that they could not record the clip for reasons such as sickness and going on a trip in the summer holidays.

The data suggests that the number of video calls delivered is more dependent on facilitator time and availability, while the number which included video-feedback is more dependent on the parent sending their clip on time, than the facilitator not being able to do it.

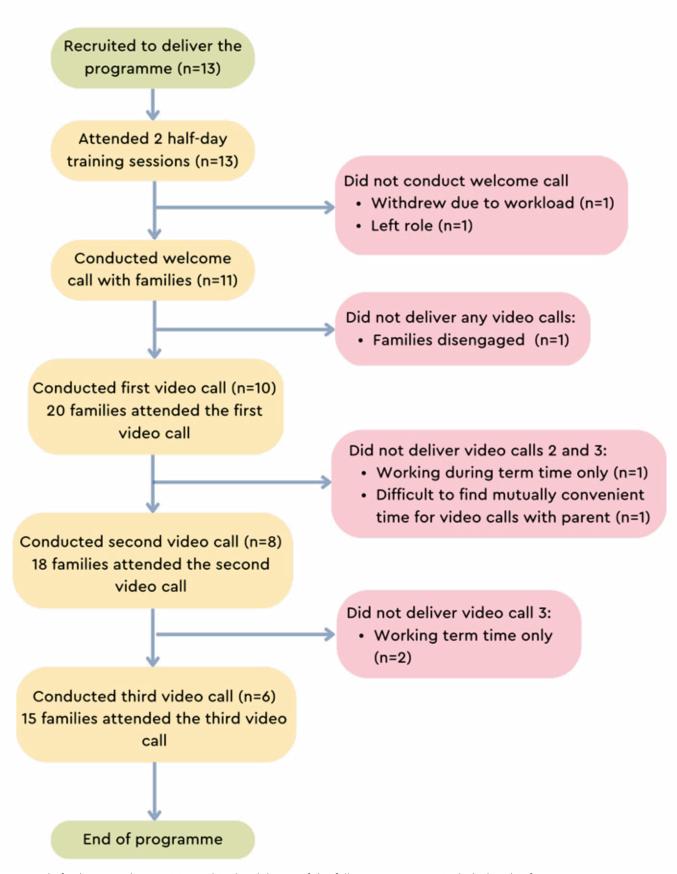
3.5 Key changes arising from the Rapid-Cycle Design and Testing (RDCT)

Using RCDT, we gathered feedback from participants throughout the study and adapted the programme where feasible as the study progressed. Three key changes were made to the programme and two further programme versions were offered to parents.

Reducing facilitators' workload

During Cycle 2, we received feedback from facilitators that the administrative tasks, including enrolling parents on skills sessions, sending reminders, and requesting video clips, were taking too much of their time and as a result, they were not able to fully complete the tasks (see Section 5.6). Based on these learnings, we allocated the majority of the administrative tasks to the research team as this element of the programme could conceivably be automated if the programme was delivered through a fully integrated platform. This allowed us to reduce the facilitators' workload and test whether facilitators could more easily deliver the programme.

Figure 5. Flow chart of facilitators' programme engagement



Note. only facilitators who participated in the delivery of the full programme are included in this figure.

Simplifying the welcome calls

Facilitators fed back that it was challenging to schedule the welcome call. In response we transferred some aspects of the welcome call into a pre-recorded welcome video on the Moodle platform. This enabled facilitators to focus on building rapport with parents as part of a shorter welcome call, before referring them to the welcome video for further information, which they could watch in their own time.

More flexibility for timing of video calls

During Cycles 1 and 2, facilitators were instructed to conduct the three video calls at set intervals (after parents completed the second, fourth, and fifth skills sessions). The purpose was to allow parents to engage with the skills content and to share clips with facilitators, whilst giving facilitators sufficient time to prepare feedback ahead of the video calls. However, the set intervals were not always convenient for parents and facilitators. In Cycle 3, we let facilitators know that they could schedule video calls as and when worked best for both them and the parents they were working with, which was welcomed by all the facilitators.

Introduction of different programme versions

Two further versions of the programme were also introduced to provide families and services with greater flexibility. One replaced video-feedback calls with check-in telephone calls. The second, self-directed version, allowed parents to access the skills sessions without any contact with facilitators.

Telephone version

The telephone version was introduced based on a site request to allow more flexibility for parents and facilitators who might not have the capacity/or preference to engage with the video call version. In this version, the video calls were replaced by telephone calls to provide a simple check-in with the parent about how they were getting on with the skills sessions and book sharing activities, and to provide support

if needed. Since there was no opportunity for video-feedback to be conducted, parents were not required to record clips of themselves book sharing with their children. Six families and six facilitators were recruited from Gwynedd, North Wales, to take part in this version.

Self-directed version

The self-directed version was introduced for parents who did not have the capacity for any direct contact with a facilitator but were still interested in learning about book sharing. This version is also for services who do not have the capacity to provide individual support for families but would like to give families the tools and opportunity to book share with their children. In this version, parents are given access to the skills sessions and provided with email reminders to complete the skills sessions; they do not have contact with a programme facilitator. Eight families were recruited to take part in this version from the same sites as the full programme version.



4. Findings:

Is Playtime with Books acceptable and feasible for families?

Thirty-eight of the 49 families who were registered in any version of the programme provided feedback (26 from the full programme version, five from telephone version, and seven from self-directed version). Nineteen of the 38 were in the high disadvantage group and 19 were in the general socioeconomic group. We attempted to collect feedback from all participating families including those who withdrew at any point of the programme or who completed some, but not all parts of the programme, to account for all of the factors that influenced the programme's acceptability and feasibility. Twenty-seven of the families who fed back had 'completed' the programme (interview n=21 and survey n=6), and 10 families who fed back had not 'completed' the programme or withdrew (interview n=4, survey n=3, and email n=3). Overall, 33 families completed both the pre- and post-questionnaires.

4.1 Families enjoy the programme and it fits well with family life

Findings across the study demonstrated that Playtime with Books is generally acceptable and feasible for families. Of those families who start the programme, most engage well³ and enjoy taking part. In particular families liked how the online format fitted with family life and enjoyed working through the sessions in their own time. Equally, families appreciated how the programme was personalised to them and their child through the relationship with the facilitator and the video calls. In particular, parents valued how the video-feedback offered them a way to see how their child was experiencing book sharing and the difference that they themselves were making. Parents described the programme as having a positive impact on their ability to establish a regular book sharing routine, transforming the way they shared books with their child, boosting their relationship with their child, and making a tangible difference to their child's language development.

4.2 Families value the programme

The majority of parents were able to participate in part or all of the programme including the skills sessions and video calls. As detailed in Section 3, of the 29 parents who registered for the full programme and went on to take up the welcome call, most (69%) were able to participate in at least one video call.

Parents generally spoke very positively about the programme, how much they had enjoyed taking part and the impact that it had on them and their children. For example, one parent described it as: "Amazing. For me and for my son, it was amazing as a programme... we learned a lot together" and "I've done something that helps me and my son". Parents valued the programme's focus on book sharing rather than reading and its emphasis on the child's enjoyment, with one parent describing it as a "fantastic way to teach parents how to have fun learning how to explore books with their [child]...to look at more than just the words in the book". For many parents the programme gave them a toolbox of skills and an important sense of confidence "in understanding how to help [their] child get the most out of reading stories together". For others it also built on what they were already doing well as one parent said. "It helped me to build on the good practices we already had...and gave me some new ideas". There was a sense that these benefits meant the commitment "was definitely worth [it]". One facilitator mentioned that a parent they worked with appreciated how the books were supplied by the programme: "Repeatedly through the programme, mum shared how nice it was to have all the books supplied as it's not something they already had access to."

³ In this section we focus on the acceptability and feasibility of the full programme to families, which included the skills sessions and the video feedback.

4.3 Families welcome the online delivery format

Parents strongly endorsed the online delivery format, reporting that it offered a range of advantages that made it more feasible for them to take part. Thirty-two out of 33 parents who completed a post-questionnaire (from all programme versions including some who didn't 'complete' the programme) said they preferred the intervention being virtual to face-to-face delivery, while one parent indicated that they would have preferred to access the intervention in an early education setting. One parent who withdrew without completing the programme and the post-questionnaire, said that she was happy with the online format, whilst another who withdrew said she would have preferred face-to-face group sessions in a local library. and a third said she would have preferred a mix of both online and face-to-face sessions. Parents who preferred the online format found it to be flexible and convenient, easy to access and navigate, well-structured and paced, and included useful reminders.

Flexibility and convenience

The majority of parents preferred the online format as it worked well with the demands of family life offering them flexibility and convenience to fit it around other commitments, especially caring for their children alongside work. For example, one parent said: "It fitted around our life rather than having to find childcare to go somewhere and do it. It just fitted in. It was so much easier that way." Many parents mentioned liking the flexibility of being able to do it "at your own time and at your own pace". This meant that families could watch the sessions while doing other things, "in the 30 minutes that I get to myself" or have the flexibility to "pause it for 10 minutes and, like, do something else and then come back to it and watch the rest".

Indeed, for many parents the online delivery was the critical factor that enabled them to take part because it meant "there were no blockers to doing this". A few parents highlighted that they could not have participated otherwise: "That's why I actually participated, because it was

online. If it was in central somewhere, I probably would have been 'I can't commit at the moment." This was echoed by another parent:

"I think if it was an in-person course, I think that would've been better to learn the skills, but then, would I have had the time to do that? I'm glad I found the time to do it...it was worth it because I don't think I would've been able to do it, if it wasn't virtual"

Easy to access and navigate

The majority of parents reported that they accessed the sessions easily on their own devices (mainly phones or laptops) with all devices working well. Some parents mentioned how they found it easy doing the programme as they were familiar with online communication/working. Equally, even those who parents didn't see themselves as tech-savvy found the online format accessible. A few had some difficulties initially (e.g., logging in or navigating the interface) but these tended to be easily resolved. Overall, the technology worked well.

Well-structured and paced

Most families liked the structure and found it feasible to complete the five skills sessions and three video calls over 6-8 weeks. Parents (n=18) took an average of 8.3 weeks to complete the full programme and the majority reported that the duration was about right for the amount of content covered with one parent saying it was a 'perfect balance'. Most liked the spacing of the sessions as it gave them time to practice the new skills with their child. Parents also appreciated the flexibility of having more time to complete a session when they needed it.

Helpful reminders

In general families found reminders (be it emails/text/WhatsApp) to be helpful prompts to complete a session or to send clips: "'cause I mean, I'm pretty busy, so a reminder's always good". Some highlighted that these channels were preferable to a call, as it was easier to receive and respond to messages when juggling work and/or a young child.

4.4 The skills sessions were 'brilliant'

For those who started the full programme and completed the welcome call, the majority (66%, n=19 out of 29) completed all five skills sessions (which covered all the online content) with an average of 4.4 sessions completed per parent. Parents generally spoke positively about the sessions describing them as enjoyable and interesting, a good length, well-pitched and paced and they welcomed the interactive elements and diversity in the clips.

Enjoyable and interesting

The majority of parents enjoyed the skills sessions and found the content interesting, engaging and helpful with one parent describing the sessions as 'brilliant'. Most parents said they learnt a lot and a couple mentioned feeling "excited" and "eager" to try out the new skills each week. There was a sense that it exceeded expectations for an online programme such that one parent said, "I really enjoyed it and it was probably one of the best online courses I've done", while another explained: "I assumed it would be some kind of slides or some kind of information to read through but...it was much better than I actually thought."

Good length

Overall, most parents reported that the number and duration of the sessions seemed about right. A few mentioned that the sessions felt a little long, but most said that there was the right amount of information in each.

Well-pitched and paced

In general parents said that the content and the skills were clearly explained, pitched at the right level, and easy to understand. One parent who has English as her second language said that the pace and clarity of the video helped her to understand the content well. However, a couple of parents found the sessions "a bit repetitive" and would have preferred them to be more succinct and to have the option to go through them more quickly.

Interactive elements

Most parents liked the more interactive elements of the sessions, finding the example videos and quizzes helpful to focus their attention. In particular parents found the example videos helpful to show the skills in action: "the online videos were fantastic and informative - very clear".

Diversity in clips

One parent liked the diversity of the caregivers in the clips saying that "it was really nice to see different types of people at different ages as well" and another mentioned that the videos included parents that she could relate to.



4.5 Relationship with a facilitator is key

Although the online delivery format was welcomed, parents valued the relationship with a real-life facilitator. Parents appreciated the practical and technical assistance that this offered, but they especially valued the rapport and reassurance provided by the facilitator. They saw the 'welcome call' as key to establishing the relationship early on, making the programme feel more personalised. The relationship appeared to work well despite the virtual format, with one parent noting that although she understood the difficulties in building relationships online, she found it easy to do this with her facilitator.

The relationship lays the foundation

Parents appreciated the 'welcome call' as a way to establish a relationship with their facilitator right from the start. They appreciated how the facilitator explained everything at the beginning, helping them to build a better picture of what the programme involved. They also valued the facilitator's interest in them and their child: "I think it's good to just build that relationship as well, and she asked questions about me, about [my child]" which gave one parent the sense that her facilitator "cared". For another parent this was especially important as her child had not yet been to nursery so she had not had the opportunity to talk with anyone before in this way. Some mentioned liking seeing their facilitator in person via a video call, helping them to put a face to the name and starting to build the rapport before beginning the programme.

Support and reassurance

Parents especially valued the reassurance that facilitators provided. One parent mentioned how it reduced their anxiety and another said: "It's nerve-wracking but [the facilitator] was really lovely and she introduced herself. She explained everything in the beginning...It felt like someone was listening if you had questions". Parents also spoke about how the welcome call helped them feel more confident about

the programme going forward; particularly in helping to reassure them about sending the clips of themselves and their child book sharing later on. For example, one parent said it "definitely made it more comfortable because I knew who was viewing it". Another said that having the introductory call definitely made the rest of it easier because,

"...making a video of yourself...can make you feel quite vulnerable and like watching yourself back. So knowing the person who's going to be looking at that video in great detail, is a benefit and makes it a little bit safer."

4.6 Video calls are so important!

The video calls were described as being a hugely important feature of the programme. For some parents this was their favourite part of the programme and others described it "as fundamental as [the book sharing skills sessions]". One parent emphasised that the programme wouldn't have been the same without the opportunity to get feedback on things she was doing right or suggestions to try something different as otherwise "it would have just been pointless because you could watch a YouTube video, couldn't you?"

Support of facilitator

The importance of having a person to talk to about their progress in the programme came through strongly in parents' feedback. They appreciated having the opportunity to talk to their facilitator about the book sharing skills which provided a place for them to reflect on their experience and consolidate their learning. As one parent said:

"it's not necessarily a kind of teaching and learning like relationship, but it's a chance for you...to process some of the learning that you've done...it helps you go, 'oh yeah, I can see why that didn't work for me' so I can try and approach it a different way".

Parents also described facilitators as providing important reassurance, confidence and motivation to keep going or tackle more challenging skills. Crucially, facilitators could provide personalised support. Two parents spoke about how their children explored books differently to the children in the videos and their facilitators helped them in gaining the confidence to let their child take the lead: "the conversations with [my facilitator] gave me the confidence to say actually this is how my child book shares and I don't really care how other children book share..."

Number, duration and structure

In general parents and facilitators found the number of calls, the duration and the spacing worked well in supporting parents to learn the skills, take in the feedback on those skills and build on them. However, one parent would have liked more video calls:

"I would have more, five, six, seven, something like that. It was very good. It was what motivated me.... After the first call, when I sent my video, [my facilitator] showed me what I'm doing and how it's very useful for [my child], for her development, and I was eager to record another one straight away".

A few parents also mentioned that the structure of the calls worked well with the check-in first, watching the clip next, and then finishing with questions. For one parent the check-in made her feel more comfortable before launching straight into the video.

Time limitations

Some parents mentioned limitations of time around the video calls. Four parents who were registered on the full programme felt that they did not have the time to fit the video calls in alongside caregiving and work and so were offered to move to a self-directed version (three of these four parents went on to complete all five skills sessions). Another parent who withdrew before having a video call, said that she didn't mind doing the video call, but that

she struggled to do it with her baby around and would have preferred contact with the facilitator to be through email.

The feasibility of sending clips

Of the 23 parents who were asked to record and send a clip in the programme, 21 were able to do so. Most of these found it easy to record and send the clips using their own devices (either phones or laptops) and also felt comfortable doing so. Only a few parents had problems recording it initially and needed to ask other family members for help or practice it a few times to learn how best to do it. A few parents noted that it could be challenging to find the time to send the clips, but that it was worth it because they enjoyed the calls.

4.7 Video-feedback is where the 'magic' happens

Precious, joyful moments

Almost all the parents loved the video-feedback and described it as being hugely beneficial, welcoming the opportunity to see for themselves how their child experienced their book sharing skills and how the programme supported their development. Figure 6 below summarises the key takeaways from the video-feedback element that parents shared.



Figure 6. Parents' perspectives on the benefits of video-feedback

Several parents mentioned feeling emotional watching the clips. As one parent described "Ah, it was lovely. It was like, joyful, watching his little face and having somebody else say, ohh, look at that, that bit." Facilitators also spoke about how the clips could be "heartwarming" for parents. One facilitator explained that the parent had told her the clips provided:

"very precious little moments...! get to see the whole story it's telling, not just the laughter and smiling I feel in the moment but being able to watch my child in these clips when I might have been pointing to the book is really sweet"

Another facilitator described how the parent "loves watching how happy [her] child is in the videos" and "absolutely loved it when [her] child hugged the book!". These heart-warming moments helped to make the video-feedback worth it for some parents who didn't like seeing themselves on the video "I didn't like seeing myself. But...it cheers me up...I could see how much he was enjoying the book sharing. So, it actually made me feel better about myself". For another parent, a facilitator noted that while mum didn't like watching herself, she enjoyed watching the clip with the facilitator and explained "I love it when you stop and [it] gives me time to reflect that what I am doing is helping my child develop."

Seeing things from the child's perspective

For many parents the video-feedback enabled them to take their child's perspective, helping them to see how much the child enjoyed sharing the books together and appreciating their child's own individual personality. As one parent emphasised:

"it was so sweet rewatching the videos and seeing how, like the stuff that you don't see and how much he enjoyed it..." She went on to say, "it's the little moments where you look at each other or like you see the enjoyment on his face that you don't see because you're reading. And he's like experiencing something while you're looking in a different direction."

Similarly for another parent the video-feedback helped her to see how important she was to her child: "I liked seeing how my son wants to make jokes and share his knowledge with me which I hadn't appreciated so much before". For others it helped them to see their child's personality and strengths, for one parent this was appreciating her daughter's strong character.

According to facilitators, parents especially valued when the facilitator drew their attention to moments of eye contact, shared emotion (e.g., laughing) and connection or pointed out what their child was thinking and feeling. For example, one facilitator noted "at the end of the chat [the parent] said she had noticed how much her child looked to her and how many lovely moments they had together...at times when she was using book sharing skills". Another facilitator recalled that mum could hear [her child] breathing quickly when I pointed it out, which she realised meant she was really focused and hadn't noticed that at the time."

This also helped parents to notice and delight in changes and progress in their child's language, emotional development and attention. One facilitator reported that three parents noticed how much more their child was speaking when watching their clips back while another noticed that two parents noticed how their children understand" and "can recognise" different emotions in the clips. For example, one of these facilitators explained how the parent "found it amazing watching [her child] develop. She has been worried about his speech and on the video chat you can clearly see him trying to repeat words that she says and points to. She has never noticed this before." She said another parent was "shocked" and "overjoyed" by how much her son has developed in his speech and was so happy to hear him say words such as "bouncy" which she had not heard him say before. One parent told her facilitator that watching the clips "had allowed her to see just how far her child's language has come, even just in the time between the clip being filmed and our feedback session." She could see how her daughter was naming so many things and working so hard to name words.

Seeing things from a different perspective could also cast things in a new light, with some parents realising that interactions that they had thought were challenging had gone well after all. "The thing is, in the moment you don't really notice your child's reaction...I think I thought she'd just been an absolute terror and it was quite nice to hear that, like actually there's lots of really good book sharing".

I make the difference

Seeing for themselves how their children were enjoying and benefitting from the interactions and the difference they were making was a motivation for some parents to continue using the skills. For example, one parent highlighted how: "it was nice to have the reassurance that what you were doing was making a difference... to watch it back and to see she [the child] was enjoying it was like well it's fine making a fool of yourself because if she's happy then it's working. It's nice to be able to watch that back because you miss so much otherwise". A facilitator also commented that a parent "really noticed where [her son] was smiling after she had used a skill" showing her how beneficial the skills were, while another noted how helpful it was for the parent to "see the child's responses to her actions" such as how much the child was copying her (pointing, dancing, waving). More generally parents noticed how their own skills were improving and, as one facilitator described, coming more naturally to them as the programme progressed.



Feeling positive and confident

Parents really valued the programme's strengths-based approach which helped them to recognise that they were doing a good job. One parent explained that her facilitator "said everything in a really positive way. You always come off feeling like you were doing a good job" which helped her "because you don't always realise why you're doing it and if you're doing it okay". The positive messages also helped parents view their children more positively and feel proud of their achievements I was happy when I heard her saying such nice and good things, always. It made me...feel so good and proud that my son is doing so good".

Some parents especially liked the focus being on their child's experience and how the activities were benefitting the child, rather than being on the parent. At the same time one parent was disappointed that there wasn't more constructive feedback: "I was hoping for some more tips about what I could do better. It was lovely to hear I was doing the right stuff, but some more constructive feedback would have made it more worthwhile for me."

4.8 Parents perceived a positive impact of the programme

Most parents described the programme as having a positive impact for their book sharing skills, their relationship with their child, and the child themselves. Figure 7 provides a visual depiction of these perceived benefits and a hypothesised circular relationship between them.



Figure 7. A visual depiction of parents' perceptions of the programme's benefits

More frequent book sharing

Most parents reported that they were book sharing more frequently by the end of the programme. Out of 19 parents in the full programme who completed the pre- and postquestionnaires, the number who reported book sharing daily, increased by 26% from 12 at the start of the programme to 17 at the end. 95% (n=18) of those who completed a post questionnaire also said they strongly agreed or agreed to having been able to establish a book sharing routine that they and their child felt comfortable with by the end of the programme. These findings were supported by parents' feedback in the interviews, across all versions of the programme. Some parents appeared to cherish these routines. For example, one mum mentioned establishing a routine whereby they always book share after she returns home from work each day, even for a few minutes and that this has continued beyond the programme. Another parent explained how it was:

"quite precious to build in those special moments and to keep and to maintain those....it meant that you kind of embed it in your life a little bit more because if I didn't carry it on, I would definitely miss it"

A couple of parents mentioned not being able to find as much time to practice book sharing during the programme as they would have liked, however, they said they intended to continue to book share with their child.

A different approach to using books

Most parents reported that the programme had a big impact on how they book shared and on the skills they used, compared to before they started the programme. They felt that this transformed the experience for both them and their child. For example, one parent described how they learnt how important it is "to use actions, voices, enthusiasm to help keep my daughter engaged with the book, it really does work". This could take time as parents got used to remembering the different skills in the moment and becoming more comfortable doing things where they might feel self-conscious like using an animated voice: "I was a bit afraid of sounding a little bit silly. But I've got over that now." This included skills that parents hadn't thought of using before such as focusing on emotions and facial expressions.

Parents could see how their approach cultivated a different experience for them and their child such that book sharing was no longer boring. One parent described how the skills had made all the difference:

"when we first started, it was all me. She'd sit and I'd read and because we have paper books at home, it was like 'don't touch the books'. That kind of thing. And with me reading to her...sitting at the side of me and reading together and she used to get really bored very quickly with it. Obviously, the tone of voice, I'm sitting her on my lap, and letting her do it herself has definitely made a difference. She likes it now"

Another parent explained the difference it had made to link the book to their child's experience:

"Before it would just be me reading the book and it would be very boring and I'd be like 'ohh a dog look a dog' but now it's like 'wow look at that dog! Is he brown? Where have we seen a brown dog? A brown dog lives next door. The dog's called...' It's so much more to it now and the linking and she's just so interested"

This made for a more enjoyable and rewarding experience for parents too as one parent explained that she doesn't blame her daughter for feeling bored when they used to read before, because thinking back she didn't enjoy it either, compared to how they share books now which is, "just so much fun and imaginative and just bursting with energy." Similarly, another parent who had found books repetitive said that she and her son had "rediscovered a love for the books that we've kind of got bored of because we're not just reading them, he's doing what he wants and he's discovering".

Two elements of the experience appeared to be particularly important. Firstly, parents emphasised that their "big takeaway" was that "you don't have to read what's on a page" and how they really welcomed this shift in mindset. As one parent put it:

"that's just an adult control thing. You get a book, you read it and it's just learning that that's not necessarily the way you have to always do it. And then that was a really nice change for me actually"

Parents described how this allowed them to see that "[there's] so much more [to books]" than what's in the text and how "it was more engaging looking at the pictures without words". The second element was giving the child the freedom to take the lead and to focus on their enjoyment. By taking a bit more of "a back seat" it allowed parents to let go of preconceived ideas about how they should book share "to keep the book as it should be, to open the pages one by one, everything an adult will do". Instead, parents spoke about how letting the child "be free with the book" generated a much more enjoyable experience. One parent described how now her son "enjoyed it a lot. He still takes the books and doing whatever he wants, turning it upside down, open three or four pages, going back and forth. At least he enjoyed it. I saw he loves the book". Indeed, another parent had noticed that by:

"giving [her daughter] the book and letting her lead, I've now seen that she's a lot more interested in it"; "She gets so excited now when I get a book out because she knows she can take it off me and she can [inaudible] the pages. She's very independent."

More confidence when book sharing

Some parents particularly noted how the programme had helped them feel more confident in sharing books with their children. It helped them to feel that they were "doing the right things" and that this was "so motivating for a parent and that's so reassuring..." Facilitators also commented on how the programme helped parents' confidence: "it was also a joy to watch as I could see the confidence in the parent also when book sharing with her son".

Stronger family relationships

Many parents talked about how having dedicated, special time with their baby/ toddler had strengthened their relationship. For example, one parent spoke about how it had supported her connection and relationship with her child, helping her manage the time that she spends with him and react differently to him. Another parent said, "we read all the time but this programme has helped us both learn how to share books more deeply, we connect more with each other as well as with the stories and images we share." Some parents also mentioned "sharing it down the family", and "consciously trying to extend the conversation" with "the whole family involved". One parent also mentioned how the programme has "opened up an avenue" for her two children to interact together, with the eldest "twirling around and using actions to show her brother what the babies in the book are doing".

Bringing skills into everyday life

Parents shared that they found the skills "really easily transferable" and that they now use them outside of book sharing interactions. Several parents mentioned following their child's lead more in everyday life has enhanced their interactions. The 'point and name' skill was discussed as particularly useful to daily life and that parents have "taken that away and [are] using that all the time now". For example, applying it to playtime when doing puzzles. Parents also talked about how they use the 'linking' and 'building' skills regularly to add information and "having those extra bits of conversation", particularly outdoors. Pointing out things in the garden and trying "to link it with other stuff that we've seen" or things they know that their child has seen or done before. Finally, parents described how they talk about emotions more with their child in their everyday lives, something that was observed by facilitators: "it was also nice to hear how the mother was using her skills outside of book sharing when it came to emotions by using different tones".



A love of books, a love of book sharing

Many parents reported that the programme had increased their child's interest in or 'love' of books. Parents tended to credit this to the shift in allowing their child to take the lead and have freedom to explore the books. Some parents described how, prior to the programme, their child resisted sitting with them to book share, sometimes preferring to sit with a book alone. In comparison, since starting the programme parents said that their child would now initiate book sharing, picking up a book themselves and bringing it to them. One parent described how her child "absolutely loves reading now...he'll actually sit down, and he'll want me to read to him....He will go and get the book and he will be more ready to do the activity". Parents also conveyed the sense of excitement this brought for their children:

"now he gets really excited. He's jumping up and down and he's asking for stories like he's got words that he associates with the book. So he'll say 'nap' when he wants rabbit nap and stuff and he gets so excited to get a book out and he's just loving reading even more than he did before. I think that's the best thing for us"

Several parents reported that this enjoyment meant that their child wanted to book share for longer and one parent reported that they are now enjoying books every day and have even joined the local library.

More playful

A couple of parents reported how their children were now more interested in toys and playing since book sharing regularly. One parent mentioned how her baby is picking up toys and giving them to her more and another parent said that her son is more interested in playing with toys on his own than he was before. Her facilitator explained:

"At the start and end of the call, [mum] described in detail how the programme had benefited her son in lots of ways including having more confidence with books, wanting to look at books more, using more verbal language more, started mouthing words more but also how it had led to him being more exploratory and curious with toys too, when he used not to be very interested in them before starting the programme. She said he will play with them now and independently when he wasn't very interested before"

Improved language

Many parents noticed improvements in their children's language development such as increased gesturing and pointing, sound and word imitation, and new words. For example, one parent said she had seen more change in her son than she was expecting and that he is now attempting new words. Another parent who took up the programme because of a concern regarding her daughter's speech, wished she had started the programme sooner as she found that her daughter was trying to make animal sounds, say a lot more, and copy her speech. Language improvements were also noticed by facilitators. One facilitator reported that "I noticed a huge development in [child]'s speech compared to the first video". See also section 4.7 Video-feedback is where the 'magic' happens, which discusses how video-feedback helped parents to see the impact that book sharing had on their child's development.

Emotional development

A few parents noticed improvements in their children's emotional development. A couple of parents specifically mentioned that the book 'Hug' (which was generally described as a favourite book) supported this. One parent shared with her facilitator that her son is now able to tell her when he feels sad and another noticed that when the book character was sad, her son pretended to cry for the first time and she realised he had learnt this emotion from the book. This parent also noticed that since reading 'Hug' her son now comforts his brother "whenever his brother cries like he'll go over to him and go, oh sorry".

4.9 Reasons for varying levels of participation in the full programme

Eleven out of 29 families who had the welcome call did not 'complete' all of the skills sessions and video calls as they either withdrew or were only able to participate in some elements (less than 3 skills sessions and less than 2 video calls). We were able to explore the underlying reasons with seven of the 11 families through interviews, surveys, and over email. Five of the families were in the high disadvantage group. Overall, we found that the leading reason for families not being able to complete all of the programme elements was due to the families' lack of time (n=3) followed by facilitators' availability (n=2) and the remaining reasons were change in circumstances (e.g., illness, family emergency) (n=2). There was no clear differences in level of participation based on families' level of disadvantage.

4.10 Scope for improvement

Although parents generally endorsed the programme as acceptable and feasible, their feedback also highlights areas for improvement.

Books

Most parents and children liked the choice of books. However, some indicated that they would like more variation, particularly if they had an older child. As a result, some parents found themselves choosing to use other books, instead of the 'books of the week'.

Skill level

Some parents found some of the more advanced skills (e.g., feelings and linking) difficult to use with children under the age of one. Despite this challenge, facilitators still commented on how well parents of younger children were able to use these skills: "mum did a really great job of using so many different skills, even some of the more advanced ones that her child wasn't totally ready for but pitching them at a level that the child could access". In these cases, facilitators were advised to explain that not all skills were as appropriate for younger children and to encourage parents to continue practicing them for when their child will be able to understand them. In other cases, parents received guidance on using more advanced skills in a way that is appropriate for their child's developmental age. For example, focusing on 'linking to the here and now' more than 'linking to your child's past experience'.

Mix of session type

Finally, three parents expressed a preference for group sessions and another said they would have liked a mix. The preference was due to a desire to connect with and talk to other parents engaging with the programme.

4.11 Summary of findings

The feedback collected from the parents through interviews, questionnaires, and surveys highlight some key factors related to the acceptability and feasibility of the programme for families. In summary, engagement in the programme was high and parents positively endorsed the programme. Families valued the online format and appreciated having a facilitator to work with through the programme. Receiving video-feedback on the clips of them book sharing with their children were particularly valued, helping parents to see how their child responded in book sharing interactions and further build the parents' confidence with the skills. Positive impacts of the programme were also noted, including an increase in the amount of book sharing, a change in the way books were shared together, an improvement in relationships within the family and an improvement in their child's language and emotional development. Suggestions for improvement to the programme included more variation in the books provided, ensuring all the book sharing skills are appropriate for younger children and offering ways for families to connect with other participants. In the next section, we will discuss the acceptability and feasibility of the intervention to early years practitioners.



5. Findings:

Is playtime with books acceptable and feasible for early years services?

We were able to gather interview, questionnaire, and/or survey data from 10 of the 16 facilitators who saw families in the study.

The overall engagement of facilitators with the programme was high and most facilitators reported that they found it acceptable and feasible to deliver the programme. They reported that they could see the benefit the programme has for families in their area, as highlighted by one facilitator:

"I would imagine that this programme would benefit the more vulnerable parents on our caseload. A lot of these parents have not had the most positive experiences with books as they associate them with school, and for some of them school was never a pleasant experience. I truly believe that this programme should be available to all parents and caregivers as it would make a lot of difference to the process of sharing a book with your child and it would benefit a lot of children to be introduced to a positive and enjoyable experience."

Facilitators were able to deliver the video calls to families, with 47 out of 54 (87%) potential video calls being conducted. Furthermore, they were able to write and deliver quality video-feedback to parents, with 94% of all video calls including the video-feedback element. This indicates a promising uptake of the programme among facilitators and shows that early years practitioners can largely deliver the programme to families including the video-feedback element.

In the following sections, findings on key components of the programme are presented based on feedback from facilitators including the online format, training requirements, virtual engagement and contact with families, book sharing skills sessions and their experience of delivering the video calls.

5.1 Online format has a place

All 10 facilitators were able to participate in delivering the programme online. Seven of them had previous experience in delivering online programmes before. However, while the online delivery of the programme was possible, a few of the facilitators expressed a preference for face-to-face delivery – either as the main mode of delivery or in hybrid format. One facilitator said:

"I work in a community setting which is a drop-in session where families are so eager to come and be face to face and get that hands-on experience... I guess I was just thinking that why would you still do it online"

However, the same facilitator also appreciated the fact that delivering a programme online could provide better access to families who are less likely to attend the drop-in sessions offered

"but maybe again it could just be reaching those people that [need] to be more flexible...but I can definitely see where, in terms of where it work for certain families like I said, there might be some people, like you know, maybe due to a disability they can't access our groups, you know, or isolation or maybe even English as an additional language you know"



5.2 Training is helpful but too short

The facilitators shared their experience of preparing for and attending the Playtime with Books programme training. Their responses suggested a varying degree of acceptability of this element. To prepare for the training, facilitators were asked to complete the five book sharing skills sessions to familiarise themselves with the book sharing techniques parents were being introduced to. Four out of the 10 facilitators who provided feedback shared that they were not able to complete all five of the skills sessions prior to attending the training, with most citing 'lack of time' as the main reason. Those who managed to start at least some of the skills sessions said that it helped give them a better understanding of how the programme will work for families. One said: "[it] was good to see where parents were going to be (in reference to the skills sessions). It was good to walk in their shoes before they walk here"

Nearly all of the facilitators agreed that the content covered in the training was accessible, including the exercises to practice preparing and delivering the video-feedback. Some expressed concerns that the duration of the training sessions felt too short given the amount of content that was covered. One facilitator who had previous experience delivering book sharing programmes in a face-to-face format said:

"I personally thought like, even though I've done it before (delivered book sharing programmes), so I still had a background knowledge, I thought the two half days, there was a lot to take in and so I mean it was very well explained, but I just thought it was a bit too much to take in...So yeah, I was just thinking it might have been better to do it over three days maybe"

The facilitators were also provided with a manual which covered all the elements of the programme including guides and tips on preparing for the video calls and video-feedback. Some felt the manual was too long, however, most thought that the manual was helpful for them as a go-to document, with some even printing out a copy of the manual so that they had it to hand. One facilitator remarked:

"I do personally think it was great having the handbook as well, so I refer to that handbook, like every single time...So I thought that was brilliant how we had the handbook there. That was really, really good."

5.3 Supporting families' engagement

All of the facilitators were able to engage virtually with the families they delivered the programme to, either via text messages, emails, phone calls, or video calls. Four facilitators shared that the families they worked with were hesitant about the term "book sharing" or the Moodle website, which hosted the skills sessions, since some of them were not confident that they would be able to navigate through the website. Some facilitators spoke about how they engaged the parents they worked with using their own experience of book sharing. One said:

"I was very much talking to them on their level as a peer. So, I ended up sharing a little bit about my experience of book sharing. I was excited for them to find out about it" Since the contact between facilitators and families was only virtual, facilitators also stressed the importance of the welcome call in initially engaging parents and building rapport with them, echoing many parents' feedback about the importance of this call. One facilitator said:

"That's why I think the welcome call is just so important, especially when it's people like you, you've never met before, you've never known, they don't know you, it's a new course for them and they might be very like dubious or joining saying 'what am I getting me self into', 'what am I doing here?', and so yeah, I found it really good. The welcome calls for both of them went really well."

Most facilitators reported being able to maintain contact and engagement with the parents throughout the programme.

5.4 Skills sessions work well

Most of the facilitators found the content of the book sharing skills sessions to be accessible for parents - both in terms of understanding the content and in navigating the website. They also shared that the parents found it enjoyable. One facilitator, who had delivered book sharing programmes before, said that she found the content to be impressive and accessible for parents:

"I was very impressed. I probably was more impressed than I thought I would be, to be honest...It was so simply put together and easy for the parents to carry on, I just thought it was great the way that was done and it did. I felt 'oh, this is gonna work'. I found it more positive than I did when [my manager] sort of mentioned it to begin with, which was good"

Overall, the facilitators' feedback on the skills sessions suggest that they felt the delivery of book sharing information in this format was acceptable for parents.

5.5 Video calls are worthwhile

The part of the programme which involves the most time from a facilitator perspective is the video calls. These provide parents with personalised support from the programme facilitators, where they have the opportunity to discuss the programme, ask questions and receive video-feedback from their facilitator based on the video clips that they have sent of themselves and their children book sharing together. This feedback is focused on positive aspects of the parent-child interaction.

The feedback from the facilitators about the video calls was generally very positive. A few facilitators reflected on the video-feedback element as being a key part of the programme, with one saying:

"I think they worked really well and definitely because I was just saying that if you give a parent just the [skills sessions]. do it by themselves on moodle, I don't think they'll learn or realise what they're doing, so [to] stop and like doing that video call and stopping at certain points, I think it was vital for the parents learning as well and so they could see things...It's just so they can see what [they're] actually achieving, I just think it's vital for the parent because the confidence and the parent from week one to week three grows as well. And for them to realise that they're doing it right or knowing that they're doing things that they never knew that they were doing but realising, 'Oh yeah, I'll try that again or I'll continue doing that'

Some facilitators who were initially reluctant to conduct the video calls and deliver the video-feedback also shared that they were pleasantly surprised by the impact the feedback had on the parents they were working with. A facilitator who managed to deliver two video-feedback sessions to parents said:

"I'm being totally, completely honest with you. When we've been doing all of this before I did my first video call, and it was sort of hard to try and fit in here and there, it actually became a bit of a bind. And I'm being honest, completely honest with you. But after I did that first video call with [parent] and the feedback that she gave me and she was just so happy and she said she felt motivated and that she would never have noticed all of those things that I'd noticed about her sharing books with her children, then actually I felt really great after doing that first video call. Because actually at that point, I felt that [it] had been really worthwhile and then I sort of re, I re-evaluated it a little bit after that"

Despite the overall positive feedback, some facilitators described challenges. These were mostly centred around the technological aspect of the video calls. This suggests that better resources and support to use these, including the platform for delivery (some used Zoom, which had a time limit for personal accounts) will improve the experience for facilitators.

5.6 Key identified barriers and enablers

This section presents the key barriers and enablers identified by the facilitators, as displayed visually in Figure 8.

Barriers

Despite the fact that facilitators were able to deliver the programme to the families they worked with, the most consistently mentioned challenge was time. This was because of the commitments they had in their existing roles. Some struggled to find the time to complete the preparation for the training and some mentioned that it was difficult for them to find the time to prepare the video-feedback for the calls with parents. This was made more difficult when parents were delayed in sending in their video clips, limiting the preparation time. A few facilitators also highlighted the challenge they were facing in putting aside some protected time within their daily routines to conduct the video calls. Although the majority were able to still successfully complete the calls, some reported that they had to move some of their other responsibilities around to allocate some time for the programme. As one facilitator highlighted: "It is time consuming in your work and week, but obviously like my work has been great because obviously I have just cut some things out to do this."

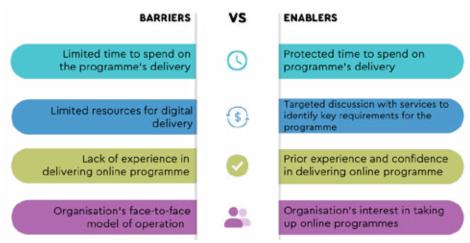


Figure 8. Facilitators' perceptions of barriers and enablers to programme delivery

A second barrier that the facilitators identified related to the technology required to deliver the video calls including a stable internet connection, access to a video-conferencing platform, such as zoom, to host the video calls and the ability to download the clips and play them on their work device. These were not always available for the early years practitioners. For future delivery of the programme, more targeted discussions with the practitioners' organisations about IT requirements is recommended, prior to starting the programme.

Enablers

Based on the facilitators' feedback, we have also identified four enablers that contributed to successful facilitation of programme delivery. Two are in response to the barriers – having protected time for the programme and targeted discussion to identify IT requirements – and a further two are the early years practitioners' previous experience and the support of their organisation/employer.

Facilitators described how their previous experience enabled them to better support parents in engaging with the programme and helped the facilitators themselves in managing the challenges of delivering an online programme that was new to them. Some of the facilitators had prior experience of delivering a book sharing programme to parents which enabled them to share information with parents about the potential benefits of the programme. One facilitator shared the following:

"I think everybody when they first hear about it, they're very sceptical at first, they're just like 'book sharing? I already read with my child, no I don't need it'...I was more using my background knowledge of it and saying like 'look it's really beneficial' and in like really knowing the project and knowing what it's going to give the child and I think that's really important as a facilitator...to have like a lived life experience with it and knowing what you're talking about"

Some facilitators also had experience in delivering virtual programmes, and this helped reduce the challenges of delivering a new programme using virtual tools.

The second enabling factor was the support and interest of the facilitators' organisation/employer interest. Facilitators whose organisation have delivered book sharing programmes before or are offering programmes that include book sharing activities appeared to more actively engage in the programme and see it through. This may be in part because the facilitators valued book sharing programmes already.

5.7 Summary of findings

The feedback collected from the facilitators through interviews, questionnaires, and surveys highlighted some key factors that either improved or reduced the feasibility of programme delivery. On the one hand, time and resources appeared to be the main barriers for the facilitators. On the other hand, previous experience in delivering a book sharing programme or delivering an online programme, and book sharing activities being a strategic priority for the organisation, were reported as factors that supportbetter facilitation of programme delivery. Overall engagement in the programme was high, and the facilitators were very positive in their endorsement of the programme. In the next section, we discuss learnings and insights based on these findings. followed by suggestions for future work.



6. Learning and next steps

6.1 Learnings and next steps

We adapted and tested the acceptability and feasibility of Playtime with Books, an online book sharing intervention with individual video-feedback support⁴, delivered by local early years services or charities. This was delivered to families with children aged 10-24 months, in areas of high economic need, with a focus on whether it is feasible to deliver this to families experiencing socioeconomic disadvantage (indexed by low income, education and/or receipt of benefits).

Parents completed up to five weekly online session and then used the skills learnt in practice with their child during that week with a picture book provided as part of the programme. In addition parents were able to access individualised guidance delivered in the form of video-feedback. Video-feedback is a powerful intervention which has been demonstrated to lead to changes in parent behaviour and positive outcomes for children (O'Farrelly et al., 2021; van IJzendoorn et al., 2022). Families could access up to three individual video-feedback sessions as part of the programme.

6.2 Key findings

The key findings of the study were that we were able to deliver the programme as originally devised to a range of families. Roughly half of families who registered for the full programme were considered to be facing high levels of socioeconomic disadvantage. In addition we were able to use the Rapid-Cycle testing methodology to test adaptions of the programme that included a lower level of individual support to the parent (please see the companion learning report 'Pedal Rapid-Cycle Design and Testing learning report: Moving the "Playtime with Books" intervention online.).

Our overall findings were:

1. The online version of the programme had good levels of acceptability and is feasible for families to complete. The families described many positive features of using an online programme to learn about and develop skills in book sharing (e.g. flexibility of the programme,

ability to fit sessions in to busy family life). The sessions and online technology were easy for parents to manage and were technically possible using a variety of devices (including mobile phones).

Most families who started the programme (participated in a welcome call) engaged well with the online sessions and video calls. Given the formative nature of the evaluation we did not pre-specify what a good level of participation would look like. Nonetheless, if we take this to be three of five sessions and two of three possible video calls, then 62% of families who started the programme could be considered as 'completing'. Participation in the programme did not appear to differ by socioeconomic background of the families, although the overall participant numbers in the study are small for these inferences. This level of engagement is lower than the 85% of families (similar in demographic background) who showed a good level of participation (5 of 7 sessions) in the UK trial of the faceto-face version of the programme; although participation was related to socioeconomic risk in this sample with families experiencing higher risk participating in fewer sessions (EPICC study; Murray et al., 2023). It is worth noting that the EPICC study achieved particularly high levels of engagement for a face-to-face parenting programme, where it is more typical for 40-60% of families to drop out completely (see Axford et al., 2012). From this perspective the engagement could be seen as generally positive given that attrition is a concern for online programmes (Martin et al., 2020)

It is encouraging that several families said that they were only able to participate because the programme was offered online. Thus, it is possible that the families who are attracted to PwB may represent a group who face barriers to accessing face to face support (see Lingwood et al., 2020) and thus are not typically served by these programmes or reflected in their study samples. The elements that we 'designed in' to the online delivery format based on the emerging literature (e.g., interactive quizzes, reminders; Harris et al., 2020; Martin et al.,

⁴ In this section we focus on learning gleaned about the feasibility and acceptability of the full programme which included the online sessions and video feedback

2020; Thongseiratch et al., 2020) were well received by families and may have helped to support engagement. Given that parents' level of engagement with sessions in book sharing interventions is predictive of better outcomes (Dowdall et al., 2020; Murray et al., 2023), it is worth identifying whether other tools that have promoted engagement with book sharing elsewhere (e.g., goal setting), could further optimise participation (Mayer et al., 2019).

2. Families report that the online book sharing programme works well. Parents spoke positively about the content of the programme and the enjoyment that they and their children got from book sharing. Their feedback lends support to the position that the virtual programme works in a similar way to the face-to-face programme.

The findings show that most families were able to establish a book sharing routine that worked for them and their child, and nearly all families reported that they read to their child daily following the programme. This finding is positive, as routines that include daily reading (compared with less frequent reading) are a key target of the intervention, as they are likely to be especially beneficial for children's development (Kelly et al., 2011; O'Farrelly et al., 2018: Raikes et al., 2006). Parents' qualitative feedback also endorsed core elements of the theory of change which offers confidence that the online version of the programme worked as expected and in keeping with the original intervention. Specifically, parents report feeling confident about book sharing, using the book sharing skills, and experiencing more enjoyable, frequent, and sustained book sharing experiences with their child, all of which are benefits we would expect to see in the faceto-face programme. This is not to be taken as evidence of effectiveness (e.g., in the absence of a counterfactual we cannot be sure that these perceived benefits are not a feature of children's natural development), however they are a valuable endorsement of the programme's acceptability and its theory of change.

3. The video-feedback sessions were very positively reviewed by families. Parents commented on how helpful the individual feedback sessions were in supporting them in developing skills in book sharing and in wider aspects of their relationship with their young children.

The importance that parents placed on the video format and the relationship with the practitioner is in keeping with the literature, which indicates that digital programmes are most effective when they include an element of personalisation and support from practitioners (Harris et al., 2020; Martin et al., 2020). Parents' accounts of the support they derived from the relationship with the practitioner (e.g., feeling trust, reassurance, listened to and cared for) lends support to the position that good parent-practitioner relationships (or therapeutic alliance) are possible in virtual and online delivery models (see Martin et al., 2020).

The findings also indicate that the videofeedback may be a promising addition to the programme; that potentially offers additive benefits beyond simulation of the in-person feedback offered in the group-based setting. Video-feedback has a strong evidence base for supporting sensitive parenting and positive outcomes for children, including socioemotional outcomes (O'Farrelly et al., 2021; van IJzendoorn et al., 2022). Parents' accounts about what they gained from this component of the programme (e.g., noticing the child's signals, seeing things from their child's perspective, sense of competence) supports the notion that the video-feedback might work broadly similarly in this context to how it is expected to operate in dedicated programmes, albeit at a lower intensity (see van IJzendoorn et al., 2022). This may be especially important for shared reading when parents are motivated by evidence that their child is enjoying the interaction, but may find it hard to interpret their child's cues (e.g., exploring the book in their own order see Preece & Levy, 2020).

Crucially, parents' accounts suggest that they value the collaborative, strengths-based, and child-centred approach that characterises the video-feedback model. This acceptability matters because families facing economic hardship may be more likely to experience interventions that adopt deficit approaches (Smith, 2019). According to Smith these approaches may rely heavily on didactic teaching and the assumption that parents lack the necessary skills to provide nurturing and stimulating interactions. By focusing on the parent they can also miss opportunities for parents to witness how their child is benefitting from shared reading interactions. In contrast video feedback aims to take a collaborative and personalised approach, situating the parent as the expert and celebrating and building on the knowledge and skills that individual parents and children bring to the interaction. Rather than scruitinising the parent, video-feedback centres the child's experience, allowing parents to see the positive difference they are making (e.g., responding to their child's interest) through their child's enjoyment.

4. There were challenges for the facilitators in finding time to deliver the programme.

Although facilitators viewed the programme positively and managed the new techniques involved in video-feedback, many encountered practical challenges, principally around fitting in the time needed for sessions and preparation alongside their everyday work. Some protected time is necessary to allow practitioners in early years services to fully participate as facilitators in this programme. We would also expect the time burden to facilitators to reduce as they gain experience in delivering the intervention. Notwithstanding this, organisational buy in and support for facilitators to engage with training and deliver the intervention will be essential for successful scaling (Franks & Schroeder, 2013; Gupta et al., 2021).

5. Rapid Cycle Design and Testing offers a rigorous and valuable approach to adapting effective interventions for virtual delivery. Our study highlights the value of RCDT in embracing the complexity of real world implementation and optimising interventions for the contexts in which they will be delivered. As a case study, we hope this study provides a useful example of a formative evaluation (see Skivington et al., 2021). We were able to dedicate time to considering how the virtual delivery of the programme intersected with its theory of change and identify key uncertainties (e.g., is a virtual offer desirable to families?) that informed our research questions. Through continuous learning, we were able to use insight from stakeholders to drive refinements in the intervention (within the boundaries set by the theory of change). For example, using this approach we were able to adapt the programme to reduce the administrative burden to facilitators. We believe these changes increase the likelihood that the intervention can succeed at scale and speak to the value of employing RCDT before embarking on efforts to scale an intervention or evaluate its effectiveness under real world/pragmatic conditions.



6.3 Areas for improvement and next steps

From the findings of the study we can have confidence that the initial signs are that the programme is feasible and acceptable, including for families facing socioeconomic disadvantage. There are several potential next steps to consider in taking the intervention to the point of widespread delivery.

- 1. Refining the programme for the youngest children. Parents' feedback suggests that some of the more advanced skills may be pitched slightly beyond the development of the youngest children (e.g., 10-14 months). It may be that spreading out the sessions for the youngest children or further tweaking the content to emphasise the skills parents can use now and those they can use later on, will help to maximise the fit for the youngest children.
- 2. Delivery at a wider scale. It would be useful to test the feasibility of the programme at a larger scale; perhaps across one or two larger regions and/or with a wider range of delivery partners. This would allow us to test the best ways of identifying and reaching children and families with highest need (e.g., through standard care pathways, see Hutchings et al., 2013). It would also provide information on how best to set up

- and deliver such a programme, including how best to deliver the books (whether in partnership with another organisation, or as a core part of this programme) and how best to staff the video-feedback sessions at scale. It would also allow for the final specification of the technology requirements for the programme to offer the best user experience for parents and services (whether through an app, or other delivery format).
- 3. There could be additional testing of less intensive versions of the programme where video-feedback is either too time-consuming or not possible for other reasons. We might expect a lighter touch version of the programme to have reduced effectiveness in terms of achieving the desired programme impact on parent behaviour and children's language. Nonetheless, general acceptability of the self-directed version of the programme suggests that this could have value as part of a universal offer (e.g., alongside universal book gifting schemes) at very little cost, with the video-feedback version forming part of a targeted offer to families with greater need. The lighter touch versions of the programme would require testing and further piloting.



- 4. The programme's effectiveness could be tested through other evaluation approaches designed to attribute outcomes to the programme's design and implementation e.g. a randomised controlled trial or other related methodology. This could be pragmatic in design and include e,g., objective measures of child language development as a primary outcome and parent behaviour as a key mediating pathway.
- **5. Final concept development** an integrated platform or app could be developed to allow for more efficient delivery of the facilitator training and book sharing programme.

Not all of the above steps are necessary, but they represent some of the next potential steps in taking the programme to scale.





6.4 Conclusions

Given progress on closing the attainment gap between disadvantaged children and their peers appears to have stalled, it is imperative that we explore options for improving skills such as early language development at scale. We have demonstrated the feasibility of delivering a wellestablished approach to building early language through online delivery (with viable technology and deliverability) that is acceptable to families from a range of backgrounds (including those who are traditionally less well reached by digital innovations (such as families facing high levels of socioeconomic disadvantage). There is already existing evidence that the original book sharing programme is effective in improving children's language development, and this online version offers the potential for enhanced learning for young children in the home environment at scale and at lower cost. We believe that an urgent and productive next step is to better understand how the programme could be integrated into local and national delivery pathways.

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Appendices

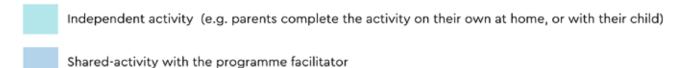
Appendix 1: Programme elements and book sharing pack: Visuals

Programme overview.

Programme elements as depicted visually to parents; book pack and contents, and a breakdown of the skills sessions and their corresponding books and themes.

Pre-programme	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Receive book pack	Skills session 1	Skills session 2	Skills session 3	Skills session 4	Skills session 5	
Welcome call with facilitator	Daily book sharing	Daily book sharing	Daily book sharing	Daily book sharing	Daily book sharing	Daily book sharing
Watch welcome video on Moodle		Home video 1 of book sharing activity*		Home video 2 of book sharing activity*		Home video 3 of book sharing activity*
		Video call 1 with facilitator*		Video call 2 with facilitator*		Video call 3 with facilitator*

Legend



^{*} Note: These activities can be done at any point throughout the programme based on the parents' and programme facilitators' availability

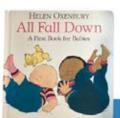
Book sharing pack.



Books included in the pack are:

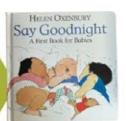
- 1. Say Goodnight by Helen Oxenbury
- 2. All Fall Down by Helen Oxenbury
- 3. Clap Hands by Helen Oxenbury
- 4. Hug by Jez Alborough

Skills overview.



Skills session 1

Book title: Say Goodnight Theme: Having fun with books!



Skills session 2

Book Title: All Fall Down Theme: Engaging your child and supporting their language

Skills introduced:

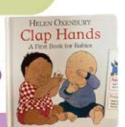
- Getting ready to book share
- · Follow child's interest
- · Point and name

Skills introduced:

- Engaging your child
- Supporting your child's language
- · Link to here and now

Skills session 3

Book Title: Clap Hands Theme: Asking, praising, repeating and building



HUG @

Skills session 4

Book Title: Hug Theme Linking and feelings

Skills introduced:

- Ask 'where', 'what' and 'who questions
- Praising and repeating words
- · Building

Skills introduced:

- · Building and linking
- Naming and showing feelings to your child
- Explaining and linking feelings

Skills session 5

Theme: Summary & practice

Appendix 2: Playtime with Books Theory of Change

Playtime with Books Theory of Change.

STRATEGIES

- · Facilitator training
- Welcome call with parents/welcome video
- Sending books and summary cards
- Dedicated online space (moodle) for resources
- · Online programme content
- Online programme interactvie elements
- Video feedback/feedback
- · Reminder messages

TARGETS

- Trusting and empathetic facilitator/parent
- Parents' motivation and engagement
- Regular book sharing interactions
- Parents' knowledge of book sharing skills
- Parents' skills during book sharing (quality of interactions)
- Parents' confidence/selfefficacy
- Increased joint attention and reciprocity
- Children's interest and enjoyment of book sharing

OUTCOMES

Parent Outcomes

- Book sharing becomes embedded in home routine
- Increase in sensitive responding and reciprocity during book sharing
- Increase in general sensitive responding

Child Outcomes

- Language (receptive and expressive)
- Socioemotional
- Attention
- · Cognition
- · Interest in books

Parent moderators

- · Parent educational experience
- · Parent digital literacy
- Engagement and openness to change
- Baseline skills

Child moderators

- · Baseline skill/development
- · Interest in books

Delivery moderators

- · Facilitator buy in/engagement
- Facilitator's digital fluency and access to technology
- · Therapeutic alliance
- · Programme fidelity

In this section we detail key elements of the Playtime with Books Theory of Change with a focus on the programme's mechanisms of change. The 'strategies' panel shows the inputs of the Playtime with Books programme. This includes the activities that take place as part of the programme. The 'targets' panel details the changes that we expect to come about as a result of parents' participation in the programme. These include the key mechanisms by which we hypothesise the programme works. The 'outcomes' panel includes the ultimate benefits that the programme is designed to provide for families and children.

A core target of the programme, or its underpinning mechanism of change, is improvements in parents' booksharing skills. Murray et al (2022) provide an overview of the evidence supporting book sharing as a privileged and intimate space for connection and learning. This work accounts for many of the skills targeted by the playtime with books programme and explains how they give rise to gains in children's language and thinking skills. For example, 'following your child's interest' and 'pointing and naming' are two key skills that promote joint attention between the child and parent. For children, the experience of having the focus of their attention and interest shared is thought to provide a sense of agency and helps to sustain their attention for longer. Children can invite adults to share and respond to their interests through pointing, a 'chain reaction' that appears to trigger children's learning (see Murray et al., 2022). In this way pointing and other gestures, allow children an opportunity to elicit speech from parents for words they don't yet know as well as providing a practice ground for children to 'feel' out the meaning for words before they can say them (Rowe & Goldin-Meadow, 2009). Also when parents point and 'name' together, something they do more in book sharing than in other conversational exchanges, they are providing valuable opportunities

for children to learn new words. Playtime with books encourages parents to do this in an engaging way by using an animated voice and actions which further stimulate children's attention (see Murray et al., 2022). Research shows that parents tend to talk in a richer way during book sharing such as when they describe the pictures, ask questions, and link the book to the child's own experience, all of which help to elicit language and may encourage verbal reasoning (e.g., Demir-Lira et al., 2019). When this is done with a book with little or no text as in Playtime with Books, the parent can cultivate a highly personal experience for the child by highlighting and linking elements of the book that are matched to the child's experience, competence, wider experience and interest.

Playtime with Books aims to deliver support and guidance on these skills in the context of a trusting and empathetic parent/facilitator relationship. A trusting parent practitioner relationship is often an essential component of effective parenting programmes (Martin et al., 2020). Thus, it was important to retain this feature of the programme as we translated it for remote delivery. Indeed, digital parenting interventions that include contact with a practitioner (rather than self directed learning) have been shown to be more effective (Harris et al., 2020). The importance of establishing a therapeutic relationship and ways of achieving this were included in the facilitator training. Facilitator/parent interactions that are positive, empathetic, and build trust are also central to the video feedback model. We anticipate the programme impact will be moderated by the 'therapeutic alliance' between the parent and facilitator, or the degree to which a trusting and empathetic relationship has been possible for that particular practitioner/parent dyad. This can be influenced by a range of factors (e.g., facilitator training, skill and inclusive practice, parents' openness to change and the fit between the parent and facilitator [e.g., personal attributes, ethnicity, similar experiences] (see Pote et al., 2019).

Parents' motivation and engagement in booksharing is another key target. An important focus of the intervention is to provide an intimate space for parents and children to have fun together. Sharing positive emotions during book sharing helps to promote children's learning (see Murray et al., 2022). Additionally, according to qualitative research with parents when they see that their child is enjoying book sharing and having fun this boosts their own enjoyment and helps them to sustain a book sharing routine (see Preece and Levy, 2020). And it is this frequent and sustained book sharing that helps to support language gains (see Raikes et al., 2006; O'Farrelly et al., 2018).

We anticipate that enjoyment also helps to encourage parents' engagement in the programme (i.e. uptake of the skills sessions and feedback calls), which is also likely to be a moderator of its effectiveness (see Murray et al., 2023). Notwithstanding this, the factors that influence parents' engagement are complex and there will be other programme factors that are important in targeting this moderator (e.g., how engaging the online programme is, how easy it is to take part and how well the programme minimises barriers to participation).

Promoting parents' confidence and self-efficacy is another common target of parenting interventions; when parents feel confident they are more likely to use parenting practices that support development (see e.g., Wittkowski et al., 2016). In the original intervention parents were offered one-to-one support and encouragement at the end of the group-based session. To replicate this experience Playtime with Books includes strengths-based video feedback which focuses on positive moments of interaction to celebrate the things that parents are doing well and build their confidence.

Appendix 3: Interview and survey questions for parents

Semi-structured interview questions.

Participant interview questions

Opening

Thank you so much for taking part in the Playtime with Books study. We are very grateful for the time and energy that you've spent throughout the programme. This interview is just for us to record your experience with the programme – both for research purposes and also so that we could improve this programme. This should take around 30 minutes. You don't have to answer anything that you would prefer not to. Do you have any questions before we get started?

I am going to record this interview so that we can transcribe your feedback. Afterwards we'll delete the recording. Is that okay?

[PRESS RECORD]

1. Expectations and book sharing in general

Aim: understand participant expectations on book sharing itself, expectations around the programme delivery itself, e.g., the sessions.

Key questions

Did you have any expectations about the online format of the programme?

2. Acceptability of the programme

Aim: gain understanding in how acceptable participating families found the programme overall. Establish if there are things that could be changed to encourage future families to take part, understand how we can make the programme as acceptable as possible.

Why did you choose to take part?

Overall, how did you find the programme?

Was there anything that you didn't like about the programme?

What did you like most about the programme?

Is there anything that you would change about the programme?

How do you think [child] found the programme?

3. Contact with the Playtime with Books team

Aim: understand the participant experience of contact with the programme team and the research team excluding video-chats.

Welcome calls

You had the welcome call through video call. How did you feel about this method?

How did you find the welcome call?

Did you feel like you understood what the programme involved after the welcome call?

4. Book sharing information and content

Aim: determine if the information presented in the sessions was pitched in the right way and at the right level for participants. I.e., was it too easy/obvious? Was there too much information and too many new skills to cover in one week?

Technical aspect of accessing the content

The online sessions were hosted on our Playtime with Books Moodle sessions. How did you find accessing and navigating this?

What device did you access the sessions on?

How was your experience with the device?

About the content

How did you find the information/content of the sessions?

What did you think about the level of interactivity of the sessions? (For example, the slides where you could click through tabs, or click on hotspots to reveal information)

Were the example videos helpful?

5. Practicalities of completing the programme and book sharing

Aim: understand the practicalities of completing the sessions and doing regular book sharing. Were there any aspects of this that were not feasible?

What did you think about the duration of the programme?

How was it finding time to complete the online sessions?

How was it finding time to book share regularly with [child]?

How did you find trying book sharing out yourself after completing the first session?

How did you find trying out the different skills?

Do you think that you will continue to use the skills when engaging in books with your child?

Do you think that you would use these skills with your child outside of book sharing activities? I.e., when playing

6. Video clips and video chats

Aim: understand the participant experience of the video feedback calls, in terms of functionality, helpfulness and if there were any challenges experienced. Understand the value of video feedback in book sharing.

Recording and sending videos

In general, how did you find it when you were asked to record a clip and send it to us?

What device did you use to film yourself book sharing with your child? How was the experience?

How did you find the process of sending your video through WeTransfer?

Video chats and video feedback

Thinking back about your first video chat, how did you feel before and after the chat?

After 3 video chats, how do you now feel about this element?

How did you find this structure of the video chats?

How did you find speaking to your facilitator about how you were finding the programme and the Book Sharing skills?

How did you find rewatching your clip?

How did you find the messages that your facilitator said at specific moments in the video?

How did you find the number of video feedback chats that you had (3)?

How did you find the length of these calls/chats?

Do you think that the feedback in these calls will help you to book share with [child] in the future?

What device did you use for the video-feedback calls? Did you experience any internet or connection related challenges during any of your video feedback chats?

7. Playtime with Books branding and packaging

Aim: determine if the way that the programme was branded and presented influenced participant buy in or engagement with the programme.

Key questions

Did you use the summary cards?

What did you think of the summary cards?

Survey.

Playtime with Books Participant Survey

A Expectations on book sharing and the programme

Thank you so much for taking part in the Playtime with Books study. This survey helps us to learr more about families' experiences of the programme so that we can improve it for other families in future. All feedback is really valuable including families who may not have been able to complete programme. The survey should take less than 15 minutes to complete.

7.1 Expositions on book onaiming and the programme
Before participating in this programme, had you heard of the term 'book sharing' before?
○ Yes
○ No
Did the programme and the activities fit your expectation of what would be involved?
○ Yes
○ No
How was this programme different than your expectations?
What did you think book sharing would involve when you first heard about it?
B. Experience of programme
Why did you decide to take part in this programme?
In general, what did you think of the programme?

What did you like about the programme?					
What did you not	: like about the pr	ogramme?			
What did you thir	nk of the duration	of the programn	ne?		
O Too shor	t				
O Quite sh	ort				
O Just righ	t				
O Quite lor	ng				
O Too long					
How much do yo	u agree with the t	following statement	ents?		
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I understood					
what the programme					
was about					
before starting					
I enjoyed the programme	\circ	\circ	\circ	\circ	\circ

I liked the fact that the programme was online

After receiving your Moodle login details, were you able to log in to and navigate the online sessions?
○ Yes
○ No
Please describe what challenges you faced when trying to log in to or navigate the online sessions

C. Moodle Online Sessions

How much do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I enjoyed going through the online sessions	0	0	0	0	0
I found the content of the online sessions helpful	0	0		0	0
The skills introduced in the online sessions were easy to understand	0				
The skills introduced in the online sessions were easy to implement	0	0		0	0
The example videos of parents and children book sharing together in the online sessions were helpful	0				
The quizzes in the online sessions were helpful	0	0		0	0

What did you think of the number of the online sessions (5 sessions)	ons in total)
○ Too few	
O Quite a few	
O Just right	
O Quite a lot	
○ Too many	

D. Practicalities of book sharing

How much do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I found it easy to book share with my child each week during the programme	0	0	0	0	0
I was able to find time to book share with my child most days throughout the programme	0	0	0	0	
I will continue to book share with my child after the programme	0	0	0	0	0
I will use some of the skills I have learned from the programme in other activities with my child e.g., play	0	0	0	0	
I liked the selection of books in the pack sent to me	0	0	0	0	0
I used the summary cards provided	0	0	0	0	0

If I could change something about the selection of books provided, it would be...

E. Recording/sending clips and video chats

Recording/sending clips

How many video clips of you and your child book sharing together did you record and send to your

facilitator during	the programme?		,		·
▼ 0 3					
What device did	you use to film you	ırself book shariı	ng with your child?		
How much do yo	ou agree with the fo	llowing stateme	nts? Neither agree		Strongly
	2	Disagree		Agree	

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I found it easy to record a clip of my child and I book sharing together	0	0	0	0	0
I found it easy to send the clip to my facilitator using WeTransfer	0	0		0	0
I felt comfortable sending clips to my facilitator	0	0		0	
I found it easy to find the time to record and send a clip to my facilitator		0		0	

Video Chats

How many video chats did you have with your facilitator to discuss h	now you were	getting on	with the
programme?			

▼ 0 3			

How much do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I found the video chats helpful in supporting me to book share with my child		0		0	0
I found it helpful to talk through the different book sharing skills with my facilitator		0		0	
I felt anxious before or after my first video chat	0	0	0	0	0
I found the video chats enjoyable	0	0	0	0	0
I found it easy to find the time to do the video chats with my facilitator		0		0	

How did you find the number of video chats you had with your facilitator?
○ Too few
O About right
○ Too many
How did you find the length of these chats with your facilitator?
O Too short
O About right
○ Too long
What device did you use for the video-feedback calls?
Did you experience any internet or connection related challenges during any of your video chats?
○ Yes
○ No
Please explain
Watching the clips back
How many video clips did you watch back together with your facilitator throughout the programme?
▼ 0 3

How much do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
I found watching the video clips back with my facilitator helpful in supporting me to book share with my child					0
I learnt something new about my child or how they respond when watching the clip back with my facilitator		0		0	
I learnt something new about myself when watching the clip back with my facilitator	0	0			0
I found watching the video clips with my facilitator enjoyable		0		0	0
I felt better about watching the clips back as I progressed through the programme		0		0	

How did you find the messages that your facilitator said when they paused the video to	throughout?
Were there any comments or types of comments that your facilitator made that you following helpful?	ound more
Were there any comments or types of comments that your facilitator made that you fo	ound unhelpful?
What did you like about the video chats?	
If I could change anything about the video chats, it would be	
Is there anything else that you would like to add or say about this programme?	

Appendix 4: Interview questions for facilitators

Semi-structured interview questions for facilitators.

Facilitator interview questions

1. Understanding of the programme

Aim: understand facilitators understanding and perception of the programme

Before you were contacted about taking part in delivering this programme, have you heard of the phrase 'book sharing'?

Have you delivered book sharing programmes or similar programmes before?

When you first heard about the programme, what were your initial thoughts on what the programme will be and what it involves?

After attending the training and delivering this programme, did your expectation on the programme change?

Could you share with us any reasons why you decided to train to become a facilitator with us?

2. Facilitator's training of the programme

Aim: understand facilitators experience from the training sessions

In general, how did you find the training sessions?

Before you attended the training, you were given access to Moodle and a few documents to have a look at (e.g., online sessions, manual), were you able to go through it before the training?

Did you think that the manual was helpful?

During the training, you were given a couple of homework scripts, were you able to do them?

During the training, how did you find the practice tasks?

After completing the training, did you feel confident to deliver the programme to a parent?

3. Parent contact

Aim: understand facilitators experience of contacting and communicating with parents.

Did you recruit the parents whom you worked with for the programme?

How did you find contacting and communicating with the parent?

What form(s) of contact did you use when communicating with parents?

How did you find the welcome call?

Did you experience any challenges when communicating with parents?

Any other thoughts on contact and communication that we haven't covered yet?

4. Parent videos and preparing feedback

Aim: understand facilitators experience of obtaining parent videos and watching them to prepare feedback for the video calls.

How did you receive the videos?

Did you experience any challenges around the process of parents sending you videos?

Did you experience any challenges with any of the videos that you were sent?

How did you find preparing the video feedback?

Did you have enough time to watch the videos and prepare feedback before the calls?

How do you think other facilitators will find writing video feedback?

How did you find the spacing of the feedback calls? (I.e., 2 weeks, 2 weeks, 1 week)

Approximately how long do you think it took you to prepare the video feedback?

Any other thoughts or comments on preparing video feedback that we haven't covered?

5. Video feedback calls

Aim: understand facilitators experience of the video feedback calls

Which platform did you use for your video chats? (i.e., zoom, teams etc.)

How was your experience of setting up the calls with the parents?

Did you need to reschedule any of the feedback calls?

Is there anything you would do differently in setting up and delivering the video feedback calls?

How did you find the video feedback call that you conducted with the parents?

How did you find asking parents how they were finding the programme/skills/book sharing in general?

What aspects/messages in the video feedback do you think worked particularly well in the video feedback sessions?

Were there any aspects or messages that you provided that didn't work so well?

What aspects/messages do you think would be important to retain in the programme moving forward?

Are there any other types of feedback, comments or messages that you felt were missing during any of the feedback calls?

Were parents receptive to your feedback?

Did parents ask or comment on anything that you didn't feel prepared or able to answer / comment on?

Did you experience any technical difficulties when providing video feedback?

Did you complete the logbook following each feedback call?

Any other thoughts or comments on the video feedback calls that we haven't already covered?

6. Closing

Aim: wrap up and gain any additional thoughts or feedback

Are there any aspects in which you feel you could have been supported more by the PWB team?

Did you get anything out of being a part of this programme?

What do you think parents got out of the programme/liked most?

What do you think worked best about the programme?

Is there anything that you would change about the programme?

What do you think other facilitators would think about delivering the programme as part of their practice?

Are there any parts of the process that you feel could be improved on to better prepare you and/or future facilitators to deliver PWB?

Have you received any feedback from parents that might be useful for future versions of the programme?

How would you explain/describe Playtime with Books to other facilitators/parents?

Any additional thoughts or feedback that we haven't covered so far?

Appendix 5: Facilitator video call logbook

Playtime with Books Facilitator Logbook

Facilitator's logbook.

▼ Yes ... No

Please complete at the end of every video chat you have with a caregiver and re-reac preparing the feedback for your next video chat.	d before
Your name	
Your email address	
Participant ID number	
Video chat number	
▼ 1 3	
Did the video chat take place?	
▼ Yes No	

Please give details as to why you did not provide video-feedback as part of the video chat

Please give details of why the chat did not take place

Are you going to schedule in another time to deliver this video chat?

Did you provide video feedback as part of your video chat?

▼ Yes ... No

Please give details of why you are not going to be delivering this video chat

Are you planning on doing any further video chats with this parent (video chat 2/3)?

▼ Yes ... No

Please give details of why you are not going to be	deliveri	ing any	further	video c	hats wit	h this p	arent
Did the parent send you a video clip of them and the	neir chil	d book	sharing	before	the vide	eo chat	?
▼ Yes No							
Length of video clip sent by caregiver	0	10	20	30	39	49	59
Minutes				-			
Seconds				Ť			
Time taken to prepare video feedback	0	10	20	30	39	49	59
Hours				-			
Minutes				i			
How did you find preparing the video feedback?							
Time video chat took place							
O Morning (before 12pm)							
Afternoon (12pm-6pm)							
Evening (after 6pm)							
Duration of video chat							
	0	10	20	30	39	49	59
Hours				-			
Minutes				-			

How did you find delivering the video-feedback element in the video chat?
Have you experienced any recent challenges when communicating with the parents so far?
▼ Yes No
Please give details on the challenges that you had when communicating with the parents so far
Did you have any IT issues across the whole programme (e.g. when downloading the caregiver's clip/whilst preparing feedback/during the video feedback call)?
▼ Yes No
Please specify the issue(s)

Which book sl	haring skills did the caregiver do well in the video?			
	Getting ready to book share			
	Following the child's interest			
	Pointing and naming			
	Using a lively voice			
	Be positive about child's attempts			
	Repeat the word			
	Use actions			
	Linking to the 'here and now'			
	Asking "where?", "what?", and "who?"			
	Praise the child's attempts			
	Building			
	Making wider links			
	Naming and showing feelings			
	Explaining and linking feelings			
Were there an	y book sharing skills that the caregiver found a challenge or did not do in the clip?			
	Getting ready to book share			
	Following the child's interest			
	Pointing and naming			
	Using a lively voice			
	Be positive about child's attempts			
	Repeat the words			
	Use actions			
	Linking to the 'here and now'			
	Asking "where?", "what?", and "who?"			
	Praise the child's attempts			
	Building			
	Making wider links			
	Naming and showing feelings			
	Explaining and linking feelings			
Did the caregi	ver provide any positive comments about the feedback of note?			
▼ Yes No				
Please specify the comments				

Did the caregiver provide any negative comments about the feedback of note? ▼ Yes ... No Please specify the comments Did the parent notice anything new about their child from watching the clip? ▼ Yes ... No Please describe what did the parent notice about their child from watching the clip Which message/moments in the video-feedback do you think were of particular interest to the parent? Were there any aspects or messages in the video-feedback that didn't work so well? O Yes O No Please share more about the aspects or messages in the video-feedback that didn't work well Did the parent ask or comment on anything that you didn't feel prepared or able to answer in any of the video chats? O Yes O No Please share what the parent asked or commented on Did you need to reschedule any of the video chats throughout the programme? O Yes O No Please share the reasons to why you had to reschedule any of the video chats

During this vid	leo-feedback call, how receptive was the caregiver to your feedback?
	1 Not open/receptive
0000	2
\bigcirc	3 Somewhat open/receptive
\bigcirc	4
\bigcirc	5 Very open/receptive
Based on the	call, how would you describe the relationship between you and the caregiver?
	1 Very negative
0000	2
\bigcirc	3 Somewhat ok
\bigcirc	4
\bigcirc	5 Very positive
Based on the	call, to what extent do you feel that you and the caregiver are working on shared goals?
	1 Very different goals
0000	2
\bigcirc	3 Some shared goals
\bigcirc	4
\bigcirc	5 Strong sense of shared goals
	vere you able to follow the manual instructions when preparing your video-feedback e.g.
writing messa	ges from child's perspective, including the different types of messages?
	1 Not very closely
\bigcirc	2
\bigcirc	3 Somewhat closely
\bigcirc	4
\bigcirc	5 Very closely
	vere you able to follow the manual instructions for the delivery of the video-feedback chat
-	structure of check in, video-feedback, rounding up and in video-feedback being able to
share your sci	reen, stop and start the clip, deliver your messages?
	1 Not very closely
0000	2
\bigcirc	3 Somewhat closely
\bigcirc	4
\bigcirc	5 Very closely
How did you fi	ind the spacing of the feedback calls across the programme?
Anything else	that you would like to record from this session?

How much do you agree with the following statements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Before delivering Playtime with Books, I had previous experience of using zoom or similar video calling platforms	0	0	0	0	0
I felt that the technology available to me and the parent supported the delivery of the programme sufficiently	0	0		0	0
I felt confident when delivering Playtime with Books virtually	0	0	0	0	0
I struggled to deliver Playtime with Books virtually	0	0	\circ	0	0
The parent struggled to receive Playtime with Books virtually	0	0	0	0	0
I was able to follow the Playtime with Books manual closely when delivering the programme virtually (e.g. delivered all three video chats, delivered feedback as per instructions)		0			
I enjoyed delivering the programme	0	0	\circ	\circ	\circ

I think the programme was beneficial for the caregiver	0	0	0	0					
I would recommend delivering Playtime with Books to other practitioners	0	0	0	0					
If the caregiver struggled to receive the Playtime with Books programme for any reason, please explain what happened									
-	e to deliver Playtime ase say why)								
Yes (please say why) No (please say why)									
Do you have exp	perience of delivering	any other inter	ventions online?						
O Yes (ple	ase explain how doe	s this programn	ne compare to the	em)					
○ No									
Would you recor	nmend the programr	me to colleagues	s?						
O Yes (ple	ase say why)								
O No (plea	se say why)								

Notes



