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Evaluating a brief online dialogic book sharing training for teaching support staff

Rebecca May Lothian

A thesis submitted to the School of Psychology, Bangor University, in partial fulfilment of the requirements of the degree of Master's by Research

30th April 2024

'I hereby declare that this thesis is the results of my own investigations, except where otherwise stated. All other sources are acknowledged by bibliographic references. This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree unless, as agreed by the University, for approved dual awards.

I confirm that I am submitting this work with the agreement of my Supervisor(s).'

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'Yr wyf drwy hyn yn datgan mai canlyniad fy ymchwil fy hun yw'r thesis hwn, ac eithrio lle nodir yn wahanol. Caiff ffynonellau eraill eu cydnabod gan droednodiadau yn rhoi cyfeiriadau eglur. Nid yw sylwedd y gwaith hwn wedi cael ei dderbyn o'r blaen ar gyfer unrhyw radd, ac nid yw'n cael ei gyflwyno ar yr un pryd mewn ymgeisiaeth am unrhyw radd oni bai ei fod, fel y cytunwyd gan y Brifysgol, am gymwysterau deuol cymeradwy.

Rwy'n cadarnhau fy mod yn cyflwyno'r gwaith hwn gyda chytundeb fy Ngoruchwyliwr (Goruchwylwyr)

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other this year (as we always have and always shall). I look forward to seeing what

happens next in both of our journeys towards careers in Psychology.

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Abstract

Research has linked socio-economic disadvantage with marked deficits in pre-school children's key skills, particularly oral language skills, that affect school readiness. Programmes aimed at addressing this problem have largely focused on helping parents to promote these skills at home. However, given the significant increase in the numbers of children arriving in school with these skill deficits, which has been further negatively impacted by the Covid-19 pandemic, the foundation phase of primary school is an additional environment for targeting language deficits. There is some evidence to suggest that TA-led interventions can be effective when adequate training and support is provided, but currently their support is not being utilised effectively due to limited training opportunities. This feasibility study explored the acceptability of providing a brief, online Dialogic Book-Sharing training to TAs, and whether this training would be effective in upskilling TAs and enabling them to improve the language outcomes of children aged 3-7 years in a school context. Eleven TA-child dyads from five primary schools across North Wales participated. Mixed methods including self-report questionnaires, direct observations, and interviews. These assessed TAs' use of DBS skills, sense of competence, and perceptions of the training and implementing the skills, as well as assessing the effects of the training on standardised and naturalistic measures of child expressive language. Data was collected at baseline, post-training (2-3 weeks after the final training session) and 4-6 weeks after the 1st follow-up. The results showed that the training had significant positive effects on TAs' use of reflections and child language abilities post-training. There were small to large sized effects of the training on all TA skills and child expressive language. However, the size of these effects was reduced at follow-up. Thematic analysis revealed TA satisfaction and provided useful feedback to improve the feasibility of implementation in schools. Overall, the results of this feasibility study provide positive evidence for this training being an accessible way for schools to strengthen their prevention infrastructures by professionalising a growing, but relatively untrained, group of the school workforce. This has implications for improving the life trajectories of many children, by improving key school readiness skills in preparation for the more formal instruction of subsequent years of education.

Chapter 1:

General Introduction

What is school readiness

All early childhood experiences (from birth to 5-years-old), both in the home and in early education and care settings, are educational and contribute to rapid development of foundational skills upon which subsequent development builds (National Research Council & Institute of Medicine, 2000; Williams et al., 2019). These basic skills indicate whether a child can effectively engage, learn, and achieve at an appropriate level in a formal school setting (Bandyopadhyay et al., 2023). Historically, children's school readiness was assessed to determine whether their needs could be met within a mainstream school or whether special educational provision was more appropriate (Hughes et al., 2018). However, more inclusive educational policies mean that children's school readiness is now assessed to establish what adjustments a school might need to make to meet a child's developmental needs (Hughes et al., 2018). Therefore, descriptions of school readiness consist of three components including: (1) the ability of the family and community to fosters development of early skills and readiness to learn, (2) the readiness of the school to meet the needs of each individual child at all levels of readiness, and (3) the readiness of the child (High et al., 2008; Williams et al., 2019).

Family and community supports that contribute to child readiness include the provision of excellent prenatal care for mothers, and for children ongoing comprehensive primary care and access to optimal nutrition, daily physical activity, and high-quality early childhood education and care so that children arrive at school with health minds and bodies (National Education Goals Panel [NEGP], 1995). Additionally, from the very beginning, parents have an important role to play in helping their child learn therefore education should be provided to parents to promote effective teaching skills (NEGP, 1995).

The readiness of schools is demonstrated by the school's ability to facilitate a smooth transition from early years settings (either home or early childhood education) to school, and by a commitment to the success of every child (NEGP, 1995). To achieve this

schools must understand early childhood learning and development and how children learn, to have an awareness of individual children's needs (including the effects of adverse childhood experiences such as poverty and racial discrimination), and make a concerted effort to tailor instruction to each child's unique pattern of early skill development to maximise their growth, including meeting special educational and disability needs within the classroom (NEGP, 1995). Schools must effectively prepare every member of staff that they employ, by providing adequate training and professional development to enable them to provide effective instruction to children that cognitively challenges rather than overwhelms the children (NEGP, 1995). Also, schools should be able to identify children who are falling behind and introduce appropriate early intervention programmes and support parent involvement to raise achievement (NEGP, 1995). Finally, schools must be flexible and alter practices and programmes that are not benefiting the children that they serve (NEGP, 1995). Accommodating the variation in children's skills upon entry to school can be burdensome and affect teachers' ability to promote learning in each child (NEGP, 1995), hence research and policy has heavily focused on reducing this burden by targeting intervention programmes at parents and preschool providers so that they can prepare children for school prior to school entry. However, given that increasing numbers of children continue to arrive at school with inadequate levels of school readiness (Savanta, 2024) even when parent interventions have been provided (Welsh, Bierman & Mathis, 2013), more research needs to identify effective intervention programmes for school-based staff, particularly in the initial years of school, to help children catch up to their peers.

Readiness in the child is determined by a set of interdependent developmental trajectories, including cognitive (language, literacy, numeracy, executive functioning), socioemotional (approaches toward learning, interpersonal skills, behavioural control), and physical skills (gross and fine motor skills; NEGP, 1995). Language is one of the most fundamental predictors of school readiness and school success (Morrison & Hindman,

2012; Storch & Whitehurst, 2002) because language is connected to all skill areas (Çakıroğlu, 2018).

What is the importance of language to school readiness

Language is the principal method of human communication, in which words are used in a structured way to convey meaning through speech, writing, or gesture (Oxford Dictionary). It is divided into receptive (understanding) and expressive (talking) language (Welsh Government, 2020). Receptive language often precedes expressive language (Welsh Government, 2020; Welsh Government, 2017a) meaning children can understand more than they can say.

Five features of language have been defined by Catts and Kamhi (1999) that work autonomously and interact as children's language skills develop: phonology (speech sounds), semantics (meanings of words and sentences), morphology (meaningful parts of words and word tenses), syntax (rules for combining words in sentences), and pragmatics (use of language in an appropriate context). Upon entry to primary school listening and speaking skills are essential because they allow children to access the instruction and feedback teachers provide and to discuss their ideas with teachers, peers, and parents (Çakıroğlu, 2018). Phonology, semantics, and morphology combined enable, speaking and listening skills (and thus receptive and expressive vocabulary) to develop, and they also contribute to children's ability to read and comprehend words, to express themselves in writing, and to understand and reason to solve mathematical problems (Kelly & Allen, 2015; Morrison & Hindman, 2012). All five features of language contribute to the ability to understand sentences, whether heard or read (Connor, 2014). Therefore, if children have understanding and expression difficulties, they lack the foundations on which to build their whole school learning experiences (Beard, 2018). In some cases, this can lead to the child learning patterns of avoidant behaviour as they become less able to cope with the language, literacy, and academic demands of class (Beard, 2018).

It is important that early childhood language inequalities are identified and provided with early intervention, because children's vocabulary and ability to talk in two-to-three-word sentences, at the age of two is a strong predictor of school readiness at four (Roulstone et al., 2011); and vocabulary at age 5 is a very strong predictor of the qualifications achieved at school leaving age and income later in life (Feinstein and Duckworth, 2006). Early language deficits, if not identified, often persist and influence later academic achievements, mental and physical health, and career and economic prospects; thereby perpetuating inter-generational cycles of disadvantage (Centre for Social Justice, 2014; Fawcett, 2003; Lyon, 2002). Unfortunately, the gap in language development is much larger than gaps in other skills (Barbarin et al., 2006; Waldfogel and Washbrook, 2010; Welsh Government, 2017a), with children from lower income families lagging behind their high-income counterparts by 16 months in vocabulary at school entry (Welsh Government, 2017a).

National statistics show that children who experience speech, language, and communication (SLC) difficulties are over four times less likely to pass GCSEs in English and Maths (I CAN, 2021). This can lead to fewer job opportunities because the changing job market means communication skills, along with influencing, computing and literacy skills have shown the greatest increase in employer rated importance (Welsh Government, 2017a). Communication difficulties in the workplace can impact on problem solving and decision making abilities, resulting in less effective practice (Bercow, 2018). This has great cost for society too, as it was estimated that by the end of 2020, loss of production due to poor communication would have been £8.4 billion a year (Bercow, 2018).

When children have difficulty understanding others and expressing themselves, the risk of experiencing social, emotional, and behavioural problems increases (Law, Garrett, Nye, 2005; Topping, Dekhinet, Zeedyk, 2013). The majority of children with emotional and behavioural disorders also have significant and undetected SLC difficulties (Hollo et al., 2014). As they get older, these children are at increased risk of antisocial behaviour and

crime – 60-90% of young offenders have SLC difficulties (Bryan, Freer & Furlong, 2010). However, if their difficulties are identified and the right support provided, this leads to a reduced risk of youth offending, lower rates of crime and the costs these problems create (Cronin & Addo, 2021). Even small gains in literacy competence have been associated with significant improvements in several areas of life (Dugdale and Clark, 2008).

How is language acquired

Language skills develop throughout the lifespan, but most typically developing children are relatively fluent users by 6 years old (Hoff, 2000). Substantial theory (e.g. Vygotsky, 1989) and research (Hart & Risley, 1995; Ninio & Bruner, 1978) has demonstrated that children's language develops through rich, collaborative experiences with expert language users including parents and teachers. Parents are children's first teachers; therefore, parental responsiveness plays a highly influential, facilitative role in early language development due to the frequent, ongoing nature of parent-child interactions (Niklas, Cohrssen and Tayler, 2016; Tamis-Lemonda, Kuchirko & Song, 2014). Both the quantity and quality of parental child-directed speech is associated with numerous aspects of child language development including receptive and expressive vocabulary development (Anderson, Graham, Prime, Jenkins & Madigan, 2021; Rowe, 2012), language processing skills (Fernald, Marchman & Weisleder, 2012), the syntactic and lexical diversity of children's speech (Huttenlocher, Waterfall, Vasilyeva, Vevea & Hedges, 2010), and children's school readiness and academic success (Brooks-Gunn & Markman, 2005).

Infants are born communicating their interests through gaze, vocalisations, object exploration and gestures; parents' responses to these signals help infants to learn words which enable them to make sense of, describe and participate in, the world (Niklas, Cohrssen & Tayler, 2016; Tamis-Lemonda, Kuchirko & Song, 2014). Generally, children are more likely to learn new words when they hear them in meaningful contexts on multiple occasions (Morrison & Hindman, 2012). In line with this, research evidence

suggests there are three characteristics of parental responsiveness which make them successful aids to early language development (see Tamis-LeMonda, Kuchirko & Song, 2014 for review of evidence). Firstly, responsive behaviours are contiguous (occur promptly after) and contingent (conceptually dependent) on infant behaviours (Tamis-LeMonda, Kuchirko & Song, 2014). Secondly, responsive behaviours are didactic and embodied, meaning infants are exposed to lexically rich, informative, multimodal input (verbal and non-verbal cues) which make clear the focal point of conversation (Tamis-LeMonda, Kuchirko & Song, 2014). Together these qualities of parental responsiveness increase infants' semantic ability to make sense of language, because they become better able to associate the words they hear with real-world referents, resulting in vocabulary growth. Children also learn language by using it in conversation with experts and other children (Morrison & Hindman, 2012). This is because a central element in early language acquisition is the child's mastery of reciprocal dialogue, not merely language exposure (Ninio & Bruner, 1978). Consequently, adults' expansions on children's language and requests for additional talk are key factors in building children's language skills (Morrison & Hindman, 2012). Hence, the final characteristic of responsive behaviours is that they accommodate the changing skills of the infant; parents scaffold infant learning by adapting their language based on the reciprocal social interactions they engage in with their infants (Tamis-LeMonda, Kuchirko & Song, 2014).

In addition to their informal interactions with their children, parents can develop their children's vocabulary, phonological awareness, and early literacy skills through more formal literacy activities within the home learning environment such as reading to their children, visiting libraries, and teaching their children letters and sounds within words (Niklas, 2015).

Environmental factors associated with language development

Negative early experiences cause significant disparities in children's knowledge and capabilities – which are evident well before school entry (National Research Council &

Institute of Medicine, 2000). These differences do not, in most cases, resolve themselves, instead they persist well into primary school (McClelland et al., 2000; McClelland et al., 2006). Many environmental factors have been linked to early childhood development including parenting styles, and sociocultural forces including socioeconomic status (SES), ethnicity and culture (Morrison et al., 2005). Evidence suggests that these environmental influences are themselves complex and interact with each other, and child factors, to chart children's developmental trajectories (Morrison & Hindman, 2012).

SES has received the most attention in the literature because higher numbers of low-SES children perform poorly on standardised vocabulary tests compared to more advantaged children (Hart & Risley, 1995). SES exerts an effect on language development through its impact on the home learning environment and parenting skills (HLE; Hart & Risley, 1995). This includes reduced access to books and parenting behaviours whilst reading books that do not promote language learning (McCormick & Mason, 1986; Ninio, 1980). Reading to children and exposure to books during the early years contributes to vocabulary development (Bus et al., 1995). This is because it is an activity in which (a) labelling occurs most frequently and repeatedly; (b) the most significant convergence occurs between the attribute a child notices (i.e., pictured objects), and caregiver labelling; and (c) children receive the most consistent and informative feedback (Nino & Bruner, 1978). Additionally, books often expose children to more complex vocabulary and sentence structures than those used when speaking (Demir-Lira, Applebaum, Goldin-Meadow & Levine, 2019; Mason & Allen, 1986). Bus et al. (1995) conducted a meta-analysis which found an overall medium effect size (d = .59), thus indicating that reading to children accounted for 8% of the variance in children's linguistic abilities. Joint attending to picture books has been studied in detail and is regarded as a powerful language acquisition tool when parents use strategies that promote active child participation (Murray, Rayson, Ferrari, Wass & Cooper, 2022).

Hart and Risley (1995 as cited in Kirby, 1997) found that there were five language experience categories in the home language environment that were more strongly associated with intelligence and expressive language ability than SES. These included: language diversity (variety of words heard), feedback tone (ratio of positives to negatives), symbolic emphasis (amount of language used to explain relations between different objects and events), guidance style (how often the child was asked rather than told what to do), and responsiveness (the level of control the child had over verbal interactions). They also found that negative language experiences were more frequently occurring in low-SES families; whereas, higher SES parents engaged in more child-directed speech, that was more conversational in nature and consisted of higher rates of praise (Hart & Risley, 1995; Hoff, 2003; Schwab & Lew-Williams, 2016). The SES differences in child-directed speech are significant and have been described as the 30-million-word gap. Although there has been some recent debate regarding the nature of this 'word gap' (Golinkoff, Hoff, Rowe, Tamis-LeMonda & Hirsh-Pasek, 2019; Sperry, Sperry & Miller, 2019a, 2019b) multiple meta-analyses (Dailey & Bergelson, 2021; Piot & Cristia, 2021) and studies (Gridley, Baker-Henningham & Hutchings, 2016; Gridley, Hutchings & Baker-Henningham, 2013) have confirmed a relationship between SES and the quantity of language in children's environment. In addition to word quantity differences, recent research has also shown SES differences in the nature of parents' child-directed speech. For instance, higher SES parents use more diverse and sophisticated vocabulary and produce more complex sentences and syntactic structures than lower SES parents (Hoff, 2003; Huttenlocher et al., 2010; Rowe, 2012).

High-quality, centre-based early childhood education and care (ECEC) during the first 3 years of life benefits language, cognitive, social, and emotional development – especially in children from disadvantaged backgrounds (Davies et al., 2021). This is because high-quality ECEC plays a buffering role by providing resources that are absent in the home learning environment. In childcare settings, space and facilities, structure and

content of activities, low staff turnover and qualifications of care providers have been positively associated with children's cognitive outcomes (Hansen & Hawkes, 2009). Due to ECEC closures during the lockdowns associated with the COVID-19 pandemic, access to early childhood education was disrupted. Davies et al. (2021) found that lower-SES children who continued to attend ECEC showed enhanced growth of receptive language. Children from less affluent backgrounds who lost access were disproportionately disadvantaged by the social distancing measures because they had fewer opportunities for social interactions (e.g. with ECEC practitioners) and associated scaffolding which would have supported their language development (Davies et al., 2021; Fox et al., 2021). This has contributed to the increased challenges experienced by primary schools post-covid (Savanta, 2024).

Why so many children are starting school with language delay

Raising the academic success of children from low-income backgrounds has been a key goal for UK and Welsh Governments for many decades and has led to policies which stipulate that support services are provided to everyone, with progressively more intensive services being provided based on need (Lynch, Law, Brinkman, Chittleborough & Sawyer, 2010; Macleod, Sharp, Bernardinelli, Skipp & Higgins, 2015; Ofsted, 2013; Welsh Government, 2016). The challenge is operationalising methods to identify the children most at risk for poorer developmental outcomes and providing the necessary assistance to all who would benefit from greater support without stigmatising certain families (Lynch et al., 2010). One example of this challenge is demonstrated by early intervention strategies that target areas of social disadvantage, such as Sure Start in England and Flying Start in Wales. These strategies often miss a significant proportion of vulnerable children because while social disadvantage is a major contributing factor to poorer early childhood development, it is not the only influencing factor and therefore leaves low-SES children living in middle class areas disadvantaged (Lynch et al., 2010).

Additionally, due to workforce shortages in the Health Visitor profession across the UK, many babies and young children have not received all of their vital health review contacts during their first 2 years of life which would help to identify SLC needs (Institute of Health Visiting [iHV], 2023). SLC needs are a common and central feature across most areas of disability and special educational needs (iHV, 2023).

Even when parents receive interventions to help improve their children's school readiness, there can be a "Matthew" effect whereby disadvantaged families do not optimally benefit from intervention efforts in comparison to more affluent families (Bakermans-Kranenburg, Van Ijzendoorn & Bradley, 2005); hence the gap between low and high SES children remains. However, other research has demonstrated that parenting interventions can be as successful, if not more successful, at improving outcomes for children from the most disadvantaged and hard-to-reach families compared to those from more advantaged families (Gardner, Hutchings, Bywater & Whitaker, 2010; Gardner et al., 2019).

Strategies for intervention within school

Children who enter school with deficient school readiness skills often fail to make expected levels of progress because the ability gap persists in the classroom setting, further widening the gap (McClelland et al., 2000; McClellan et al., 2006). Children with the lowest abilities tend to receive support from teaching assistants (TAs; Rubie-Davies, Blatchford, Webster, Koutsoubou & Bassett, 2010; Webster et al., 2011). Unfortunately, there is a lack of clarity in defining the role of TAs within educational policy, which has resulted in enormous variation in how TAs are deployed across different schools. This is reflected in the array of job titles by which they are known (Welsh Government, 2019) and the variation in the literature regarding the effectiveness of TAs in improving child learning outcomes.

The Deployment and Impact of Support Staff (DISS; Blatchford, Bassett, Brown, Koutsoubou, et al., 2009) study found that whilst TAs had a positive impact – in terms of

reducing off-task behaviour and disruption in the classroom and allowing the teacher more time to teach – they had a negative effect on supported pupils' academic progress. This was because as severity of SEN increased, contact with TAs increased whereas contact with the teacher, wider curriculum, and peers decreased – meaning that TAs were providing alternative, rather than additional, support to teachers (Blatchford, Bassett, Brown & Webster, 2009). However, it is often decisions made about, and outside the control of, TAs by school leaders and teachers that are responsible for this negative relationship between TA support and pupil progress (Webster et al., 2011). TAs are often inadequately prepared for their role in classrooms due to a lack of specific entry qualifications for TAs, varying degrees of induction training and professional development provided for TAs (and for teachers in terms of managing and organising the work of TAs), and the ad-hoc nature of joint planning and feedback between TAs and teachers (Webster et al., 2011). Despite this TAs spend over half of their day in a direct pedagogical role, in which their interactions with pupils are more frequent, interactive, and sustained, but of a poorer quality, than those of teachers (Webster et al, 2011). This is due to them often lacking qualifications and preparedness, not understanding the concepts that support children to learn, their inability to effectively scaffold children's learning – by using strategies such as prompts and questions, to encourage active child participation and independent thinking, and providing feedback – and failure to help children to understand concepts, not just to complete tasks (Rubie-Davies et al., 2010; Webster et al., 2011).

Reviews (Alborz, Pearson, Farrell & Howes, 2009; Slavin, Lake, Chambers, Cheung & Davis, 2009) and meta-analyses (Dietrichson, Bøg, Filges & Jørgensen, 2017; Higgins et al., 2021; Pellegrini, Lake, Neitzel & Slavin, 2021) have indicated that when TAs are prepared and trained to deliver structured interventions and have support and guidance from the teacher and school about practice, they can have a direct positive effect on pupil's academic progress. There is stronger evidence for literacy and reading interventions than for mathematics (Farrell, Alborz, Howes & Pearson, 2010; Higgins et al.,

2021). This has resulted in recommendations for the effective deployment of TAs from many researchers (see Sharples, Webster, & Blatchford, 2015 for a summary). Sharples et al. (2015) recommended that schools adopt evidence-based interventions and use TAs to deliver them on a one-to-one or small group basis, to help children who have entered school with school readiness deficits. A possible intervention to help children with language delay to catch up with their peers is dialogic book-sharing.

Chapter 2:

A Review of the Dialogic Book-Sharing Literature

What is Dialogic book-sharing

Background

Dialogic book-sharing (DBS) is an evidence-based intervention, originally designed to optimise parental reading of picture books, which can substantially improve preschool children's language development (Whitehurst et al., 1988). DBS encourages adults to make several changes to how they typically share books with children, the most significant change being a shift in roles. Typically, the adult plays an active role by reading the words in a book verbatim, and the child passively listens. However, with DBS adults become active listeners and encourage children to assume a progressively more active role in storytelling.

In DBS interactions adults increase both the number and complexity of questions asked and increase the provision of maximally informative feedback to the child (Whitehurst et al., 1988). As the child becomes more accustomed to their storyteller role, the adult shifts more of the responsibility for telling the story to the child. For example, initially adults ask the child to label depicted objects in the book using wh-questions; but later in the programme the adult asks more open-ended questions (e.g. "What's happening on this page?") to help children identify what to talk about. These question types require more, both cognitively and verbally, from the child than simple closed questions that can be answered with a yes/no or by nodding/shaking of the head. Adults are also encouraged to repeat and expand on children's responses and either provide confirmation that the child has answered correctly, by praising them, or provide a corrective model that highlights the difference between what the child said and what they could have said (Whitehurst et al., 1988). Originally this would have been phrased as "No that isn't a kitty, it's a dog," (Whitehurst et al., 1988). However, more recent studies have shown that it is more effective for children's language learning to phrase corrections more positively to minimise the risk of reducing the child's self-esteem and the risk of child disengagement. For example, "It does look like a kitty doesn't it, but it could also be a dog." It is also recommended that parents encourage children to repeat any corrections or

expansions. Parents should also be sensitive to advances in their child's language use and progressively ask more challenging questions (Whitehurst et al., 1988). For example, once the child has demonstrated their knowledge of the name of a depicted object, the parent can ask questions about attributes and functions of objects, or where objects are in relation to one another on the page (Whitehurst et al., 1988). The theory behind these parental behaviour changes is that it increases the child's exposure to new language, enabling the child to practice language – which aids fluency (Moerk, 1986 as cited in Whitehurst et al., 1988), and provides opportunities for the child to compare and integrate their parents' and their own syntactic knowledge (Nelson, 1981 as cited in Whitehurst et al., 1988). Finally, corrective feedback serves essential informational and motivational functions for the child (Whitehurst & Valdez-Menchenca, 1988) and prompts the child to increase the sophistication of their descriptions of material depicted in the book (Lonigan & Whitehurst, 1998).

The effectiveness of DBS interventions was first assessed in a randomised controlled trial involving children (aged 21-35-months-old) and their parents from middle-class families (Whitehurst et al., 1988). Parents in the intervention group received two half-hour training sessions two weeks apart and implemented dialogic reading with their children at home for two weeks after each training session. Control group parents received no training and read to their children in their normal fashion. Post-intervention scores revealed that children in the dialogic reading group had achieved 6- to 8.5-month gains in their expressive language compared to children in the control group. Children in the experimental group also displayed increased mean length of utterance (MLU, i.e., a higher frequency of phrases and a lower frequency of single word responses). Differences between groups remained at the 9-month follow-up but were statistically diminished. These were deemed "very large effects in children who were already functioning at an advanced level before the intervention" (Whitehurst et al., 1994). The validity of the conclusion that these between-group differences in children's language were due to the

intervention was strong because parents in each group reported similar frequencies of reading sessions and parents in the experimental group conducted the intervention with high fidelity. For example, over time parents in the experimental group increased the frequency of open-ended questions and reduced the frequency of straight reading and asking yes/no questions compared to the control group (Whitehurst et al., 1988). This research demonstrated that even within a motivated and affluent sample, parental behaviour whilst sharing books with children was not optimal prior to intervention. The practical implication was that it was not particularly challenging for parents to adapt their behaviours enough to obtain substantial positive effects on their child's language development.

Whitehurst et al. (1988) were the first to provide experimental evidence for joint reading during the preschool years contributing to child language development and for the child's active participation playing an important role in their acquisition of new language skills. By manipulating the frequencies of naturally occurring child-directed speech they also demonstrated experimentally that the way that parents talked to their children during joint reading affected child language development and they identified specific strategies which facilitated the language learning process. Acronyms were later established and incorporated into the training videos to help adults to recall the sequence of dialogic reading strategies when sharing books with their children (Whitehurst et al, 1994). The PEER acronym aims to remind adults to *prompt* the child to discuss the book, *evaluate* the child's answers, *expand* upon what the child said by repeating and adding information to it and *encourage* the child to repeat the expanded utterances. The CROWD acronym helps adults remember the five types of prompts that can be used during the peer sequence:

1. *Completion prompts* which encourage children to fill in the blank,
2. *Recall prompts* to elicit conversation about the child's memory of aspects of the book,
3. *Open-ended prompts* which required the child to respond using their own words,

4. *Wh-prompts* were what, where and why questions,

5. *Distancing prompts* were questions that linked the book's contents to the child's personal experiences.

Many further studies on parent populations have shown that dialogic book-sharing positively affects children's language skills, particularly their expressive vocabulary (Bus et al., 1995; Dowdall et al., 2020; Mol, Bus, de Jong & Smeets, 2008; Pillinger & Vardy, 2022). Additionally, evidence suggests parenting programmes that teach specific behaviours linked closely with their children's academic progress (such as the dialogic reading) are more consistent in promoting gains in child cognitive skills than programmes with broader goals and are more focused on educating parents about developmental issues (Welsh, Bierman & Mathis, 2013).

Application of book-sharing in preschool settings

In recognition of the role that early childhood education settings play in addressing the verbal interactional deficiencies of low-income households and increasing children's exposure to language, Whitehurst et al. conducted a series of studies in which they extended the implementation of their dialogic reading intervention to day-care settings that served children from low-income households. Previous evidence had suggested there were substantial differences in the quality of verbal interaction between different preschool settings (McCartney, 1984), with children from low-income families generally receiving less optimal stimulation (Schliecker, White & Jacobs, 1991). Based on this, Whitehurst et al. saw improving the quality of verbal interactions within early years settings as a promising target for research and social policy to improve the lives of children of low-income parents (Valdez-Menchenca & Whitehurst, 1992).

Valdez-Menchaca and Whitehurst (1992) initially had a teacher apply DBS techniques with 2-year-olds who were attending a public day care in Mexico. The linguistic ability of these children did not meet age expectations, despite their being developmentally normal in the domains of physical and motor development. When the intervention group

was compared to controls, the intervention had large effects on standardised measures of children's receptive and expressive language, as well as their spontaneous speech, during book-sharing. The authors concluded that these findings demonstrated that a DBS intervention could be successfully implemented with children with below-average language abilities, and it was a more feasible form of early intervention for developing (low-income) countries which lacked the resources to implement large-scale intervention programmes such as Head Start. The authors also concluded that their findings indicated that day-care teachers, rather than parents, could implement the intervention. However, given that a doctoral student acted as the teacher and read with the children on a one-to-one basis (which is not typically achievable in a day-care setting due to lack of staff and time) this conclusion lacked ecological validity.

The Mexican project left two questions unanswered. Firstly, to what extent can typical day-care staff be trained to implement dialogic book-sharing techniques? Secondly, although there is evidence that reading to children in small groups can be effective, to what extent can the interactive nature of dialogic reading be effectively applied in the group setting that is typical in day-care? To answer these questions, Whitehurst et al. (1994) trained day-care teachers to use DBS techniques; building on previous findings with the addition of a dialogic reading at home and at day-care condition. Children (aged 3-years) were randomly assigned to one of three conditions: (a) a school plus home condition in which children were read to by their teachers and parents, (b) a school condition in which children were read to by their teachers only, and (c) a control condition. The children assigned to either of the intervention groups that involved day care teachers were read to in groups of no more than 5 children. Parents and teachers were trained using a videotape training method (Arnold et al., 1994; Whitehurst, Arnold, & Lonigan, 1990 as cited in Whitehurst et al., 1994). Prior to intervention the children's receptive and expressive language scores on standardised measures were significantly below average. Post-intervention, children in both dialogic reading conditions experienced large and

significant increases in expressive language skills compared to the control group children; these gains were maintained at the 6-month follow-up. Furthermore, there were higher scores for children who received dialogic reading at day-care and at home compared to those who only received dialogic reading at day-care.

This project, however, did not determine the respective contributions of parents and teachers to the effects of the combined intervention because the design lacked a condition in which parents alone read to their children (Lonigan & Whitehurst, 1988). It was possible the effectiveness of the combined intervention was due solely to parents' contributions, perhaps because they were better able to share books with their child on a one-to-one basis and adjust the level of interaction more than teachers (Lonigan & Whitehurst, 1988). This was unlikely because the school only condition was effective too. Alternatively, it was possible the effectiveness of the combined intervention was due to an interactive effect between the contributions of both parents and teachers, perhaps because of the higher frequency of exposure to book-sharing at preschool and at home (Lonigan & Whitehurst, 1988). Lonigan and Whitehurst (1998) replicated and extended Whitehurst et al.'s (1994) results with the addition of a third intervention condition: dialogic reading at home alone. The dialogic reading intervention demonstrated significant effects on post-test expressive language scores in comparison to the control group, and there were no differences between the intervention groups. The intervention also increased the children's mean length of utterance, as well as the diversity and quantity of words used. These findings demonstrated that both early education teachers and parents could produce significant improvements in the oral language development of children from low-income backgrounds using a relatively brief DBS intervention.

Whilst these studies demonstrated that DBS could effectively be implemented in preschool settings and achieved a similar magnitude and level of significance of effect on children's language development as home interventions, they did not assess whether dialogic reading was more advantageous than normal reading. This is because unlike

studies conducted with parents (Arnold et al., 1994; Whitehurst et al., 1988), the day-care

studies did not include a control group in which children were read to in a normal fashion.

For this reason, Hargrave and Sénéchal (2000) compared two reading conditions in which

day-care teachers either read in their regular fashion or in a dialogic manner. The parents

of children from each condition were also given books and asked to read five times weekly

in the same fashion as the teacher. The children in this study lagged behind their

chronological age by 13 months on measures of expressive language. The results showed

that preschool children with poor vocabulary learned new language, either by listening to a

book rendition or by actively participating. However, consistent with the findings of

Whitehurst et al. (outlined above), Hargrave and Sénéchal found the benefits were more

extensive (a significant increase in expressive language equivalent to gains that would

normally occur in 4 months) for the dialogic reading condition compared to the regular-

reading control condition. Their findings extended those of previous research by

demonstrating the beneficial effects of dialogic reading after a shorter intervention (4

weeks) and in larger groups (8 children) than those investigated previously (5 children).

This was an important finding because it demonstrated that DBS interventions were

feasible and effective within the typical adult to child ratios of a preschool setting.

Adding to this line of work, Opel, Ameer & Aboud (2009) used Hargrave and

Sénéchal's 4-week, teacher-implemented dialogic reading intervention to assess the

benefits of DBS in a developing country in which preschool classes are larger (consisting

of 20-25 children), staff receive less training, and children are less familiar with books and

with encouragement to express themselves. They found a large effect size for increased

expressive language (measured by children's ability to define new words acquired) in the

experimental group compared to the control group. Additionally, many children expressed

their ideas resulting in the reading sessions being longer in duration than was typical with

paired or small group dialogic reading (30 minutes compared to 10 minutes). This

demonstrated the efficacy of the DBS procedure in improving expressive language in a

low-literacy, low-resource country, and when implemented by a paraprofessional teacher with a large group of pre-schoolers.

More recent studies conducted in the US have delivered DBS training to teaching assistants who were supporting their school's preschool programmes (Fleury & Schwartz, 2017; Towson, Green & Abarca, 2019). Fleury and Schwartz (2017) found that TAs could be trained to effectively incorporate DBS into their daily practice, with high fidelity; and when they did, children with autism spectrum disorder – regardless of severity – learned new book specific vocabulary more efficiently, remained engaged with book-sharing activities for longer, and increased their rate of verbal responses to TA comments and questions about the book. The fact that some of the benefits associated with DBS were replicated for children with ASD suggested this may be a promising practice for this population (Fleury & Schwartz, 2017).

On the other hand, Towson, et al. (2019) found that TAs implemented DBS strategies with variable fidelity following a single 45-minute training session and additional support provided by scripted books. Post-intervention, three of the four TAs significantly changed the way they shared books by increasing their use of CROWD prompts only (acronym outlined in Chapter 2). While the training did also provide TAs with knowledge of the evaluate, expand, and repeat strategies, their use of the skills was variable, inconsistent and did not reach a level of significance. Also, when the scripted book support was removed, TAs could not develop their own prompts. Overall, the changes in TA behaviour produced limited effects on children's book-specific vocabulary. This led the authors to conclude that additional booster sessions following the intervention phase and systematic fading of support was needed to enable TAs to implement the skills better and more independently and to achieve carryover to both children's receptive and expressive language.

Despite the conflicting results of these studies, overall, they suggest that TAs may be a viable workforce for expanding the use of this promising method to young children

arriving at school with language impairments. This is further supported by TAs, in both studies, self-reporting positive impressions of the training, the appropriateness and benefits of the training, and their plan to continue to use the strategies.

Book-sharing in the UK context

Despite evidence of the benefits of DBS, little research has been conducted in the UK (Murray et al., 2022). In 2018, Murray et al. adapted their previously successful book-sharing programme, which they had developed for supporting parents of children aged 14-18 months in poor communities in South Africa (Cooper & Murray, 2014; Vally, Murray, Tomlinson & Cooper, 2015), for use with older children (aged 2-4-years-old) in the UK context. They evaluated the impact of the intervention on parenting skills and child cognition in collaboration with Children's Centres in the town of Reading. They also assessed programme acceptability to parents and staff. They found substantial benefits for parental behaviour during book-sharing post-training, especially in terms of sensitivity and cognitive scaffolding. For all three sets of comparisons (controls vs intention to treat population [all recruited participants]; controls vs per protocol population [participants who attended the requisite number of sessions]; and controls vs engaged population [subgroup of participants who actively participated in weekly sessions]) there were small-medium effects on child expressive language and for per-protocol and engaged parents similar sized effects on child receptive language and attention.

Work in Wales has been conducted at the Centre for Evidence Based Early Intervention (CEBEI) within Bangor University (see Children's Early Intervention Trust & CEBEI, 2022 for a summary). This was in response to children's communication needs being identified as an area of concern in a Welsh Government report, Talk with Me (Welsh Government, 2020). Data from the 2020 schools census in Wales found that 63,422 children between 0 and 11-years-old had Special Educational Needs (SEN) provision (Welsh Government, 2020). This was equivalent to 20% of all Welsh pupils (Welsh Government, 2020). Additionally, 31.4% of all children with SEN were reported to have

SLC difficulties (Welsh Government, 2020). Given the previous success of DBS programmes in improving children's language and school readiness competencies, CEBEI piloted the seven session Cooper and Murray DBS programme as a group-based parent programme in a primary school in North Wales. A classroom assistant was recruited who was able to encourage enrolment of parents of children aged 3-5-years in nursery and reception classes with additional language needs. Both parents and teachers gave positive feedback about the programme and reported improvements in the children's language abilities (Owen, 2022). This prompted further research to determine whether school-based delivery of the 'Books Together Programme' was feasible and satisfactory for schools and parents to optimise future delivery and engagement.

Williams, Owen & Hutchings (2024) used a pre-post intervention design to assess the feasibility and acceptability of parents of children in nursery and reception classes (3-5-year-olds) being trained in dialogic book-sharing by school-based staff (three TAs and one teacher). The authors also explored the initial effectiveness of the programme on parenting skills and children's language and social emotional competencies. They found significant increases in parenting competence and satisfaction and positive parenting strategies (including praise and encouragement, reflection, academic coaching, social-emotional coaching, and linking), and a significant reduction in negative parenting strategies. There was also no significant difference in the frequency of questions despite the programme aiming to change the type of questions asked. The intervention also significantly improved children's expressive language, social-emotional competence, and behaviour. Thematic analysis of interviews with the training facilitators also revealed that there were improvements in both home-school links and the school staff's own practice when sharing books with children in school; the latter of which, was believed to increase children's engagement with books in lessons (Williams et al., 2024). As most facilitators were TAs, this highlights the need for specific training aimed at upskilling TAs in strategies that facilitate language learning.

The Covid-19 pandemic created an opportunity to develop a remote DBS parenting intervention. Owen (2022) explored the feasibility of online delivery of the 'Books Together' programme and its impact on parenting skills and children's social-emotional and behavioural outcomes. To achieve this, the Books Together programme's weekly Power-Point presentations were pre-recorded to include voiceover and video presence of the training facilitator. Each of the seven sessions were saved as separate video files – which were all sent to participants via a single email allowing them to complete the programme at their own pace (Owen, 2022). Additionally, the seven books and handouts were sent to parents via courier service in separate large envelopes entitled session 1, session 2, etc. to enable home practice (Owen, 2022). They found significant post-intervention increases in positive parenting strategies (including reflection, academic coaching, and social/emotional coaching), parental competence and well-being and significant decreases in child behaviour problems and social/emotional difficulties. Thematic analysis revealed parental satisfaction with, and the feasibility of, the online delivery of the DBS programme (Owen, 2022). Overall, the study provided positive preliminary evidence for the efficacy of online delivery of the Books Together programme, as it yielded similar results to the in-person, group-based delivery of the same programme (Owen, 2022).

Conclusion

In conclusion, DBS has proven efficacy in improving the language of preschool children who are not performing at age expected levels linguistically. This is the case whether intervention programmes are delivered by parents or preschool educators, and across different countries including the US, Canada, UK, Mexico, and Bangladesh. The evidence outlined above reports that increasing numbers of children are entering school with delayed language. The need for children to have school readiness skills puts a demand on schools to support the academic success of each child regardless of their early childhood experiences (including the provision of early interventions for children identified as falling behind). Whilst there have been some studies in early years settings,

training is not being directed at primary school staff that would enable them to directly intervene within the school context to help children who have entered school with language delays to catch up with their peers. To our knowledge, the only study that has directed DBS training at teaching assistants, targeted teaching assistants in pre-school classes within an elementary school in the US (children were 3-4 years old; Towson et al., 2019), so the intervention was still being aimed at the Early Years. Owen (2022) aimed DBS intervention at children who had entered school in UK reception classes (and nursery) but trained school-based staff to deliver the intervention to parents. This leaves unanswered the question of whether teaching assistants in the UK could be effective in implementing DBS intervention with older children experiencing language delays in their first years of school (4-7-year-olds). While Opel et al.'s (2009) sample included 5-6-year-old children, in the context of the Bangladeshi education system these children were categorised as pre-school children. Additionally, it would be inappropriate to compare the effects of an intervention on children from a low-income, low-literacy country to those of children in a high-income, highly literate country. Therefore, the present thesis aims to add to the current DBS literature by answering the question: can TAs be trained in the use of DBS skills and deliver them effectively with children in primary school. This is important because recent evidence suggests that, during classroom-based shared book reading, most preschool teachers asked children questions that were easily answered correctly, or with a single word, rather than asking open-ended questions – which elicited longer, multiword responses – because they produced more inaccurate responses (Deshmukh et al., 2019). This indicated that preschool teachers were not demonstrating Vygotskian principles (1978) of adjusting their questioning techniques to an appropriate level of challenge (Deshmukh et al., 2019); which would inevitably affect the level of language children enter school with.

Chapter 3:

Exploring the Efficacy and Acceptability of a Brief Online Dialogic Book Sharing Training for Teaching Support Staff: Quantitative Findings

Introduction

Increasing numbers of children, particularly those from low socioeconomic backgrounds, are entering school without the necessary levels of understanding and expression to be able to access the curriculum (Beard, 2018). This is a public health concern because these difficulties typically persist and determine both academic and economic achievement at later stages in life (Beard, 2018). There is evidence that children's speech, language, and communication (SLC) needs, across health and education settings, are not identified; this is due to a lack of knowledge and training, which would ensure the children's workforce were better equipped to identify and support SLC needs at both universal and targeted levels (Bercow, 2008). This pattern has worsened due to the impact of the Covid-19 pandemic lockdowns, resulting in UK Education Recovery plans emphasising the need for training for all teaching staff to enable them to identify and support children struggling with their speaking and understanding (I CAN, 2020).

The Welsh Government has implemented several early intervention strategies, some to raise the attainment of all pupils in Wales, through the introduction of the Foundation Phase, but others to specifically target children from the most deprived areas with the provision of Flying Start and the Deprivation Grant (Welsh Government, 2017b). Flying Start is a targeted Early Years programme for families with children up to the age of four living within very small areas of significant socioeconomic deprivation. This initiative provides enhanced health visiting, free part-time, high-quality childcare for children aged 2-3-years, access to support which promote positive parenting and support for children's speech, language, and communication skills (Welsh Government, 2017b). Preliminary evidence suggests that Flying Start provisions have positively impacted children's primary school attendance and increased early identification of SEN, both of which improve educational attainment (Welsh Government, 2017b). However, more than half of the most disadvantaged families live outside Flying Start catchment areas (Hutchings, Griffith,

Bywater, Williams, & Baker-Henningham, 2013), meaning that they are unable to access this helpful early intervention programme. An outreach element to Flying Start provision was introduced to reduce the exclusion resulting from "postcode entitlement"; however, it is insufficient to meet the needs of all families living outside of designated areas (National Assembly for Wales [NAfW], 2018). Furthermore, there are problems within Flying Start areas regarding engagement with service provision, particularly for the most in need families (Hutchings et al., 2013). Together, this helps to explain why so many children in Wales are entering school not ready to learn.

In a 'radical overhaul' of the Early Years education provision in Wales the Foundation Phase was introduced to provide a single statutory curriculum framework for children aged 3-7 years (Waters, 2016). This replaced earlier education policies which mirrored those in England, including the Desirable Outcomes for Children's Learning Before Compulsory Age (for 3-5-year-olds) and the National Curriculum for Wales Key Stage One (for 5-7-year-olds; Welsh Assembly Government [WAG], 2008). This change in policy was prompted by research evidence that suggested that an overly formal approach to early years education had a detrimental effect on children under the age of 6 (NAfW, 2001 as cited in Waters, 2016). It recognised that children learn through involvement in the learning process as this increases their motivation to engage (Siraj-Blatchford et al., 2003), hence play and first-hand experiences are prioritised within the pedagogical approach of the Foundation Phase (WAG, 2008).

During the Foundation Phase children benefit from increased time to develop skills across seven areas of learning including (1) personal and social development, wellbeing, and cultural diversity; (2) language, literacy, and communication skills; (3) mathematical development; (4) Welsh language development; (5) knowledge and understanding of the world; (6) physical development; and (7) creative development (WAG, 2008). Greater emphasis is placed on the individual child's needs rather than a 'one size fits all' model (Thomas & Lewis, 2016) to ensure that every child reaches their full potential. This is

particularly important given the number of children entering school deficient in key school readiness skills (Savanta, 2024). In Wales, risk factors associated with poor school readiness include eligibility for free school meals, being a boy, low attendance at nursery, being born late in the academic year, being a low birthweight child, and not being breastfed (Bandyopadhyay, 2023). The main aims of the Foundation Phase are to "raise the children's standards of achievement; enhance their positive attitudes to learning; address their developing needs; enable them to benefit from educational opportunities later in their lives; and help them to become active citizens within their communities" (Welsh Government, 2013).

To achieve these aims, practitioners consider children's prior experience as the base from which to develop, rather than taking a competency-based approach which assumes age-related norms of performance (WAG, 2008). Practitioners take an active, participatory role in children's play and activities, to facilitate learning by creating environments that build on children's interests (Waters, 2016) and provide opportunities to engage in real-life, practical, problem-solving tasks (Thomas & Lewis, 2016). Additionally, consistent with the findings of longitudinal research regarding effective Early Years practice (Siraj-Blatchford, Sylva, Muttock, Gilden & Bell, 2002; Siraj-Blatchford et al., 2003; Taggart, Sylva, Melhuish, Sammons & Siraj, 2015), Foundation Phase practitioners promote adult-child interactions, that involve sustained shared thinking, open-ended questions, and reflexive co-construction of knowledge (Thomas & Lewis, 2016; Waters, 2016). This has been shown to benefit children's learning outcomes and extend their thinking (Siraj-Blatchford et al., 2002; Taggart et al., 2015). Within the Foundation Phase policy, children are viewed as playing an active role in the search for meaning due to their inherent curiosity (Waters, 2016). Consequently, it is essential that child-led and adult-directed activities are balanced (WAG, 2008).

Dialogic book-sharing (DBS) is a method of supporting a child's engagement with picture books, by following the child's lead, sensitively responding to their interests, and

encouraging them to actively participate in interactions about the book (Murray et al., 2018). This intervention has shown benefits for pre-school and school aged children's expressive language and has been successful with parent and early years educator populations (Dowdall et al., 2020; Williams et al., 2024). However, to our knowledge, no research has been conducted in which teaching assistants have implemented a DBS intervention with children in school. A recent UK guidance report regarding the teaching of language, communication and literacy skills has advocated for the use of dialogic reading and highlighted the PEER and CROWD acronyms (outlined in Chapter 2) to guide practitioners (EEF, 2018). This guidance was aimed at Early Years settings but does state that the skills can be used for older children who are struggling with their language skills (EEF, 2018); and guidance for Key Stage 1 (statutory curriculum framework for children aged 5-7-years in England) also advocates for dialogic reading (EEF, 2020). Given these recommendations and the clear alignment between the underlying principle of taking the child's lead that is present within both the Foundation Phase and dialogic book-sharing, DBS may be a promising intervention to introduce to support children entering school who have additional language and communication needs.

When the Foundation Phase was gradually being introduced, an increased number of teaching assistants were recruited to meet the requirement for higher adult to child ratios (1:8, particularly in nursery and reception classes; Welsh Government, 2019). Therefore, today TAs are more readily available within Welsh primary schools to provide individual and small group interventions for those with additional learning needs or who are not making expected rates of progress. To best utilise this increased workforce, the next step should be training for support staff and to assess the efficacy of a TA-led DBS intervention within the school context. Support for this proposal lies in previously described research that indicates that: (1) increasing numbers of children are entering school who are not school-ready and these children are more likely to receive TA support, (2) while TA's can be effective in improving children's academic progress when trained to use

evidence-based interventions, many lack professional development opportunities (3) parental DBS interventions are effective in improving the language ability of children in nursery and reception classes.

Aims of the present study

The aim of the present study is to develop, deliver and evaluate a brief, online DBS training for TAs who are currently supporting children aged 3-7 years. These aims will be achieved using both quantitative and qualitative methods. The quantitative component, presented in this chapter, will address the following research questions:

1. How effective is online delivery of DBS training at improving TAs' behaviours during book-sharing interactions and improving TAs' sense of competence regarding supporting children in the Foundation Phase of primary school with their language development?

2. How effective is TAs' application of DBS techniques at improving both standardised and naturalistic measures of expressive language?

3. How acceptable is the book-sharing training to TAs?

Based on the findings of Deshmukh et al. (2019), Williams et al. (2024) and DBS research that delivered the training to parents three hypotheses have been proposed:

1. There will be a post-training increase in TAs' sense of competence and TAs' use of positive behaviours (including praise, encouragement, reflections, questions, verbal labelling, verbal questioning, emotion coaching), and a reduction in TAs use of negative behaviours (including critical statements and not providing children opportunity to respond) during book-sharing compared to pre-training.

2. TAs' use of the DBS skills will result in improvements in children's vocabulary and length of utterance.

3. TAs will report good levels of satisfaction with the training.

Method

Design

Pre- and post-training data from TAs and children were collected for a pilot study. Mixed methods were utilised to explore the impact of delivering a brief online dialogic book-sharing training to teaching assistants (TAs) for school-based implementation. Quantitative analysis assessed outcomes using repeated measures design via questionnaires, a gaming format child language assessment, and direct observation of TA-child book-sharing interactions. Qualitative interviews explored TAs' satisfaction with the training and perceptions regarding the benefits and feasibility of TA-led dialogic book-sharing interventions in schools.

Recruitment

Study details were sent via email to North Wales primary schools (Appendix A). Eleven schools replied expressing interest. Once ethical approval was granted, schools were sent another email (Appendix B) requesting they provide TAs with notes of interest (Appendix C) and return completed notes of interest to the researcher. The note of interest included consent to being contacted by the researcher to learn more about the study, provide formal verbal consent and arrange the baseline school visit. This email also asked schools to identify children they believed would benefit from a language intervention and contact the children's parents, using a pre-written email (Appendix D) provided by the researcher, for consent for their child's participation. The pre-written email included a link to a Microsoft Form that contained an information sheet (Appendix E) and consent form (Appendix F) for parents. The parental consent included consent for their child to be filmed with the TA during a 10-minute book sharing activity.

Five schools (with a total of 12 TAs) responded and were recruited by the researcher by direct telephone contact. One school predominantly taught through the medium of Welsh, the rest predominantly English. One TA was withdrawn from the study as they were absent due to illness during the baseline school visit and therefore unable to provide written informed consent. It was not possible to arrange another baseline school visit as the TA was still unwell at the time of the first session of training.

Development of the Book-Sharing Training for Teaching Support Staff

Williams et al.'s (2024) Books Together programme was adapted to create a brief online dialogic book sharing training for support staff. The Books Together programme is a parent intervention that has demonstrated benefit to child language development in a study carried out in Wales, UK (Williams et al., 2024). This programme comprised of seven, two-hour weekly sessions delivered by facilitators to small groups of parents. Each session concentrated on a specific theme with a 'book of the week' to allow for demonstration and practice of the associated book-sharing skills. Text-light or wordless picture books were used as previous research shows these books elicit more responsive, dialogic parent-child interactions (Noble, Cameron-Faulkner, & Lieven, 2018; Sénéchal, Cornell & Broda, 1995). During the first hour the content was delivered, and discussions took place. During the second hour, children joined their parents to practice, under the guidance of the facilitator, the strategies taught that week. Parents received feedback and instruction for continued practice (Williams et al., 2024).

The current study amalgamated the themes of weeks 1-3 of the parent-programme into day 1 of the training for teaching support staff and the themes of weeks 4-7 were combined in day 2 (see Table 3.1). This was because it was unlikely that TAs could be released for seven sessions, but also to adapt the programme content to the level of knowledge and experience of a professional audience. The two training sessions were approximately 3 hours long, and occurred online, via Zoom, one week apart. Whilst the training took place online, the content was delivered live using a PowerPoint presentation which included video examples of parents demonstrating good book-sharing practices with their child (see appendix G). The training facilitator had received DBS training from the South African Mikhulu Child Development Trust and had received certification as a trainer. The training also included the use of the interactive whiteboard function for activities and breakout rooms to enable TAs to practice the skills with each other – with each TA having an opportunity to play the role of the child.

The core principles of the training were identical to those taught in the Books Together Programme (Williams et al., 2024). TAs were taught skills that enabled them to support children's interest and active engagement in sharing books rather than focusing on reading the text. They were encouraged to respond flexibly and sensitively to children's developmental capacity and experience. The importance of positive reinforcement, through praise and reflecting the child's verbalisations, was emphasised. TAs were encouraged to practice the skills with the children that they were supporting in school between training sessions and were given an opportunity to share and reflect on their experiences so far at the beginning of the second training session. A training pack including all seven books (Appendix H) and two booklets (Appendix I) containing summaries and examples of the skills demonstrated in each day of training was provided during the baseline school visits prior to the training (see Table 3.1).

Table 3.1

The Dialogic Book-Sharing Training for Teaching Support Staff Content

Current study	Williams et al. (2024) session content	Associated books
Day 1	Session 1: Introduction, Building and Enriching. Outlined the basic principles of dialogic book-sharing including emphasising its child-led nature and the importance of always being positive. Also covered other techniques including pointing and naming, asking 'who, what, where' questions and generally encouraging the child's interaction.	'Handa's Surprise' by Eileen Browne
	Session 2: Linking. Making links between the contents of the book and the child's experience and to good morals/values; as well as linking different parts of the story together.	'Little Helpers' by Lynne Murray and Peter Cooper
	Session 3: Numbers and Comparisons. Incorporating activities such as counting, that promote enumerating and making comparisons (e.g. bigger/smaller), working memory, inhibition and shifting.	'Handa's Hen' by Eileen Browne
Day 2	Session 4: Talking about feelings. Naming feelings using character's facial expressions or tone of voice to contextualise them. Talking about why character's feel a certain way and linking to the child's own emotional experience.	'Hug' by Jez Alborough

Session 5: Talking about intentions. Discussing character's desires, beliefs and intentions and the potential purposes of their actions.	'Harry the Dirty Dog' by Gene Zimmerman
Session 6: Talking about perspectives. Explaining the fact that different characters in the book can see, hear, know, want, and feel different things from each other, and how these influence their behaviours.	'Harry by the Sea' by Gene Zimmerman
Session 7: Talking about relationships, Summary and Next Steps. Discussing everyday family relationships, including resolving conflicts. Summarised the key learning points from both sessions and encouraged continued book-sharing practice.	'All's Well That Ends Well' by Lynne Murray and Peter Cooper

Note. The book for the final strategy (talking about relationships) is different to that used by Williams et al. (2024), as parent reported the pictures in the book they used to be devoid of clarity and colour making it hard to engage children positively with its content (Williams et al., 2024).

Measures

Demographics Questionnaire. This questionnaire captured basic demographic information about the TA, including age and gender (which was also collected for the child), employment status, education level, as well as experience working with children generally and with the child they were working with as part of the study (see Appendix J).

Child Behaviour. The Teacher Strengths and Difficulties Questionnaire (T-SDQ; Goodman, 1997; see Appendix K) is a screening tool, assessing child behaviour across four problem behaviour subscales (conduct, emotional, hyperactivity, peer problems) and a prosocial behaviour subscale. The current study utilised the English language version, for children aged 4-17 years, to cover the age range of the children involved in this study . The T-SDQ includes 25-items rated on a three-point Likert scale. Responses include not true, somewhat true, and certainly true. The sum of the four problem subscales provides a total difficulties score. Higher scores indicate greater levels of difficulties (with 0-11 classified as close to average, 12-15 as slightly raised, 16-18 as high and 19-40 as very high) and greater levels of prosocial behaviour (with 6-10 classified as close to average, 5 as slightly lowered, 4 as low, and 0-3 as very low) for the T-SDQ.

Teaching Assistant Sense of Competence. Adapted from the Parental Sense of Competence Scale (Johnston & Mash, 1989; see Appendix L), this 17 item scale

measures both satisfaction with, and efficacy in, participants' role as a TA. Each item is rated on a six-point Likert scale, ranging from 1 = strongly disagree to 6 = strongly agree. Nine items (2, 3, 4, 5, 8, 9, 12, 14, and 16) were reverse coded. The sum of scores for all items is the total score. Higher scores indicate a stronger sense of competency.

Child Language. The vocabulary task from the Early Years Toolbox (Howard & Melhuish, 2017; Appendix M) is an iPad-based game, which was used to assess children's expressive language. The game presents, and asks children to name, cartoon images of objects (e.g., flower, vegetables). Children's responses were recorded by the researcher on the iPad app by clicking one of three options: correct response, specified response, or don't know. The measure includes 55 items and has an average duration of 5 minutes. Stop rules end the game after six consecutive incorrect and/or don't know responses. Scores were calculated by summing the number of correct responses.

TA behaviours. The Dyadic Parent-child Interaction Coding System (DPICS, Robinson & Eyberg, 1981) is a well-established observation tool used in the present study to measure the quality of TA-child interactions during a 10-minute book-sharing activity, with a specific focus on TA behaviours. Observations were video recorded for later coding and to allow for assessment of inter-rater reliability. Ten behaviours of interest were coded, that were taught, or discouraged, in the training including praise, encouragement, reflections, questions, verbal labelling, verbal questioning, emotion coaching, linking, critical statements and response opportunity (whether TAs provided children with an opportunity to respond). Each coding sheet (see Appendix N) recorded the frequency of each behaviour during 5-minute intervals, by scoring a mark in the applicable tally box each time the behaviour occurred.

Length of child utterance. The video recorded observations were transcribed either in English by the first author or in Welsh by an assistant. In accordance with the Deshmukh et al.'s (2019) methodology any child utterance that was one-word long or an article and one word (e.g., C: "Yes," "A chicken") were categorised as a single word/basic

utterance. An article is a word that indicates a noun without describing it. In English, there are only three, including: the, a, and an; in Welsh they are: y, yr, and 'r. This category also included utterances with false starts (e.g., C: "The, the, the duck"). Utterances that contained two words or more were coded multi-word utterance (e.g., C: Red and yellow; C: Next to the tent). See Appendix O for an excerpt.

Acceptability, Feasibility and Efficacy of the Training and Implementation.
After the training participants completed an end of training evaluation questionnaire (Appendix P). A link to the online Microsoft Form was disseminated to the TAs in the Chat function on Zoom and via email to the headteachers (which also included a printable version). Face-to-face semi-structured interviews (see Appendix Q for interview schedule), were also conducted with TAs at the one-month follow-up. Questions explored their opinions of the training, beneficial elements, challenges, and their experience of using the skills. The interviews were audio recorded for later transcribing.

Ethical considerations

Ethical approval was granted by Bangor University School of Psychology Ethics Committee (application number: 2023-17329). All participants provided written informed consent which outlined their right to withdraw without penalty at any time (see Appendix R).

Procedures

The researcher contacted each TA via telephone to arrange baseline school visits at a time that was convenient for them. It was made clear to the TAs and headteachers that the school visit would need to take place in a quiet room, and that parent consent would need to be obtained prior to the visit, to enable recordings of the TAs sharing a book with the children to take place.

Data collection. Data were collected from participants during three school visits. One was a baseline assessment - which occurred once parent consent had been obtained, and TAs had read the participant information sheet (Appendix S) and signed the

consent form (Appendix T). The other two occurred post-training. The first follow-up took place within three weeks of completing the training. This was because the schools broke up for half term either the day of or the day after the last training session. The second follow-up occurred one month after the first follow-up.

At the baseline school visit, the researcher and the TA initially went to a quiet room alone. The researcher reminded the TA what their participation in the study would involve, informed them of their participant number and their right to withdraw at any time by quoting said number, and obtained written informed consent. TAs were then asked to complete a brief demographic questionnaire, the SOC, and the T-SDQ about the child (if they were able to, if not class teachers completed them). They were also provided with training packs which consisted of the seven books used as part of the training and two summary sheets which summarised the skills covered in the training.

Once the questionnaires had been completed the TAs collected the child from their classrooms. The researcher introduced themselves to the child and explained that they would be helping their TA today by firstly playing a quick game on the iPad (i.e., The Early Year's Toolbox – delivered by the researcher – with the TA present to ensure the child felt comfortable) and secondly, being video recorded whilst they shared a book with their TA. For the recording, the camera was set up on a tripod stand in front of the table at which the TA and child were sat side-by-side. The books were provided by the researcher. These were books from the Usbourne Farmyard Tales series: 'The Naughty Sheep,' 'Pig gets Stuck,' 'Camping Out,' which were counterbalanced across the three data points to reduce practice effects. Welsh translations of these books were provided for schools that predominantly utilised Welsh medium: 'Y Ddafad Ddrwg', 'Methu Symud', and 'Gwersylla'. Additionally, 'The Hungry Donkey' and 'Tractor Ar Ras' were used as a second book to ensure TAs could fill 10 minutes. These recorded observations were later transcribed and coded.

It is important to note, however, there was one instance in which Welsh books had mistakenly been brought to the baseline visit at an English medium school. In this instance the TAs were asked to use books available at the school (see appendix U for details). These were not as text light as the Usbourne books but contained a lot of pictures. Additionally, the same two books were used by both TAs at that school in the opposite order to reduce the impact of confounding factors. To mitigate the chances of this happening again both English and Welsh versions of each book were taken to all future school visits.

This same procedure was followed at both post-training follow-ups. A key difference being that the T-SDQ was not completed at either follow-up. This was because it was deemed unlikely for TAs' training or use of the DBS skills to have a significant impact on children's behaviour given the short trial period of the current study (8-10 weeks) and the questionnaire's instructions advising the person completing to provide "answers on the basis of the child's behaviour over the last six months,". Therefore, the T-SDQ was used to provide demographic information only. Another difference in the procedure was that at the second follow-up, after the recorded TA-child interaction and the return of the child to their classroom, the TA completed a semi-structured interview with the researcher. As a thank you for their participation children were given stickers at each time point and the TAs were gifted the books included in the training pack.

The interviews were audio recorded and transcribed for thematic analysis (see Appendix V for an excerpt and Appendix W for the codebook). All video recorded observations were transcribed and coded by the author (primary coder), and a second coder (MEW; the criterion coder who had trained the author to use DPICS) coded 25% of randomly selected videos for inter-rater reliability (IRR). Interclass correlations (ICC) estimates and their 95% confident intervals were calculated based on a single-rating, consistency, 2-way mixed-effects model. Researchers achieved excellent inter-rater

reliability (90% or greater) across all scales. The ICC were between .932 and 1.000 (see Table 3.2).

Table 3.2

TA Behaviours, Brief Definitions, and Intraclass Correlations

TA behaviour	Definition	Intraclass correlation
Positive behaviours		
Praise	Specific or non-specific expressions of favourable judgement on the child's participation (e.g. 'Well done' or 'Good idea').	1.00
Encouragement	Expressions of approval, appreciation, or positive acknowledgment of the child's participation (e.g. 'Wow').	.98
Reflections	Repeating all or part of the child's preceding utterance (Child: 1, 2, 3, 4, 5; TA: 5).	.97
Verbal labelling	Pointing to and labelling objects/people/body parts/colours/numbers whilst holding the child's attention (e.g. 'One (points), two (points) cows').	.99
Verbal questions	Wh-questions that encourage the child to label things/use vocabulary/point to specific things (unless in command form, e.g. 'What are they doing on this page')	.98
Questions	Any other questions that were not wh-questions.	1.00
Emotion coaching	Helping the child identify, label, and understand their own and other's emotions; or encourages the child to generate their own solutions to certain situations (e.g. 'How do you think he's feeling' or 'What could he do differently next time').	.98
Linking	Linking the contents of the book to the child's personal experience (e.g. 'Have you ever been camping').	.93
Negative behaviours		
Critical statements	Finding fault with the child's participation (e.g. 'No, it's not X it's Y).	1.00[a]
Response opportunity	Giving the child fewer than 5 seconds to respond	.99

[a] Calculated as zero, but no critical statements were coded in the videos randomly selected for IRR, so it is reported above as 1.00 because coders agreed.

Data analysis

Quantitative. Measures of TA sense of competence, child behaviour, language and length of utterance, and TA-Child interaction were analysed in the International Business Machine Corporation Statistical Package for Social Sciences 29 (IBM SPSS version 29).

Data were scored according to the guidelines for each measure. Descriptive statistics (means and standard deviations) were calculated. Repeated measures analyses of variance were performed to determine training effects. Tests of normality were conducted, and when this was violated a non-parametric Friedman's test was conducted. As a result of multiple tests being conducted on the data a Bonferroni correction was applied to the p-value to ensure the Type I error rate across all comparisons remained below 0.05. For post hoc analyses these were calculated automatically in SPSS. However, for the overall tests of within-subjects effects (ANOVAs) and the overall hypothesis test (Friedman's tests), Bonferroni corrections were calculated manually ($p = 0.05/3 = 0.017$ and $p = 0.05/14 = 0.004$, respectively).

Qualitative. The interview transcripts were subjected to theoretical thematic analysis, using Nvivo data analysis software. Thematic analysis is a method for identifying, analysing, and reporting themes within the data (Braun & Clark, 2006). This method was selected to provide a richer, more detailed, and complex analysis alongside the quantitative data. These findings are reported separately in Chapter 4.

Results

Sample Characteristics

Eleven TAs and twelve children from five primary schools across North Wales participated. The discrepancy in TA to child numbers is the result of child sickness at baseline. Fortunately, due to the withdrawal of another TA at that school another child's parents had already provided consent for their child to participate in the study, so this child replaced the absent child allowing us to still collect data regarding the TAs use of skills. However, a different child (i.e. the child who had returned to school after a period of illness) was used at the other two time points. This was because the replacement child was in a different class to the TA, so it was not feasible for the TA to implement the skills with this child; therefore, it may have skewed the results using a child for the post-training observations who had not been exposed to DBS techniques. This, however, meant no child

data from this TA-child dyad was included in the analysis, therefore the data of only ten

children will be presented.

　　　　The TAs ranged in age from 28-60-years-old. Six stated English (55%), and three

stated Welsh (27%) as their first language and two (18%) identified as bilingual (English

and Welsh speaking). All were paid employees at the schools in which they worked. The

majority worked full-time as general classroom TAs (82%), the other two worked part-time

in a resource provision unit with children with special educational needs (18%). The level

of education among the TAs varied. The majority (n = 6, 55%) had obtained GCSEs. The

others had no qualifications (n = 1, 9%), AS level (n = 1, 9%), or further education of A-

level equivalent or above (n = 3, 27%). Experience working with children ranged from 3 –

30 years.

　　　　Children ranged in age from 4-7-years-old. Five children (50%) spoke English as

their first/main language, four spoke Welsh (40%) and one was bilingual (10%). The

bilingual child spoke English and Gujarati. Most children were very familiar with their TA (n

= 7, 70%). The length of time that TAs had worked with the child with whom they were

being observed with ranged from 0 to 48 months. No behavioural issues were reported for

the children by either the TA or the class teacher within the sample, with 90% of children

scoring close to average on the T-SDQ. Only one child (10%) had a slightly raised score.

See Table 3.3 for further details.

Table 3.3

Sample characteristics at baseline

TA Demographics	All (N = 11)
TA age, years: M(SD)	49.91 (10.08)
TA gender, female: n (%)	11 (100.00)
Experience working with children, years: M (SD)	13.36 (8.41)
Length of time working with particular child, months: M (SD)	9 (13.40)
Child Demographics	All (N = 10)
Child age, years: M (SD)	5.36 (0.92)
Child gender, female: n (%)	8 (80.00)

Training Engagement

All TA participants attended both sessions of training and completed the programme (100%). Most of the TAs joined both training sessions from a quiet room onsite at school, with only one TA joining from home for the second session.

Pre- and Post-Training Results

Baseline and two sets of follow-up measures were collected from all TA-child dyads (100%). This section reports the overall significance of each ANOVA and Friedman's non-parametric test conducted to explore the effects of the programme on TA's sense of competence and behaviours during book-sharing, and children's standardised vocabulary and spontaneous speech. Additionally, post-hoc tests conducted for significant results are reported. Pairwise comparisons were used to explore baseline to follow-up outcomes for both ANOVA and Friedman's tests. Effect sizes for the baseline to follow-up comparisons are reported as Cohen's d. Cohen (1988, 1992) suggests the following categorisation of effect sizes for d: 0.2 (small), 0.5 (medium) and 0.8 (large).

Child outcomes

Main effects. At baseline three children were performing at or below the 25th percentile, one child was performing at the 50th percentile, and 3 were performing at the 75th percentile in terms of age-related norms for the EYT (Howard & Melhuish, 2017). The other 3 children were aged 6-7 and Howard and Melhuish (2017) did not report norms for these ages.

An ANOVA showed a significant main effect of the DBS intervention on children's expressive language capacity, $F_{(1.45, 13.07)} = 8.58$, $p = .007$. The Greenhouse-Geisser estimate of the departure from sphericity was $\varepsilon = .73$, hence the degrees of freedom were adjusted. Non-parametric Friedman's ANOVAs showed significant main effects for changes in the number of single word utterances (SWU; $\chi^2(2) = 7.40$, $p = .025$), multi-word utterances (MWU; $\chi^2(2) = 12.20$, $p = .002$), total utterances ($\chi^2(2) = 15.20$, $p = < .001$), and words ($\chi^2(2) = 15.00$, $p = < .001$) used by children during the intervention period. There

was a much greater increase in the frequency of children's use of MWU than SWU (see Figure 3.1). However, once the Bonferroni correction had been applied across all Friedman's tests the findings for SWU were no longer significant. See Table 3.4 for further details of the main effects of the training on child outcomes.

Figure 3.1

Changes in Children's Use of Single- and Multi-Word Utterances Over Time
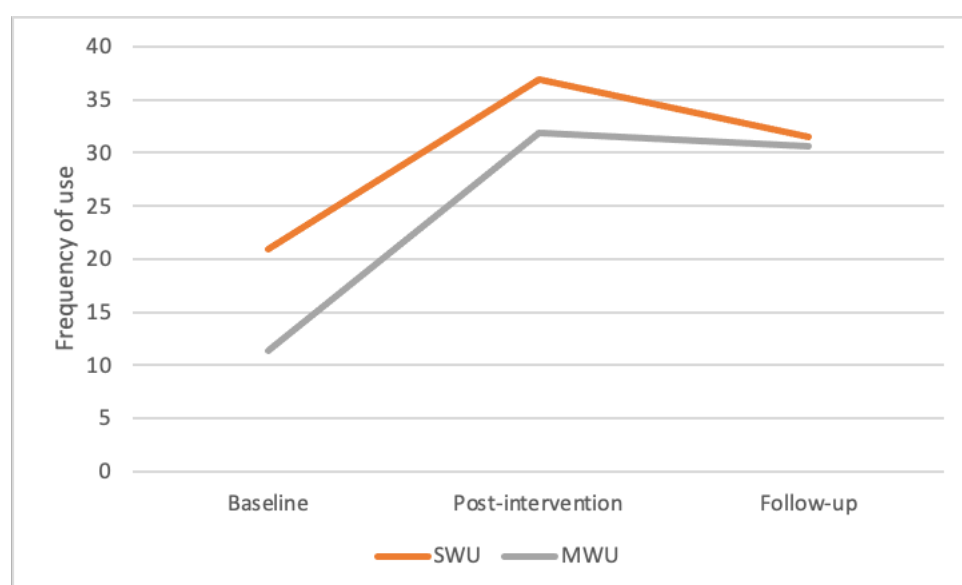
Table 3.4

Summary of the Main Effects of the Training on Child Expressive Language (n = 10)

Measure	Baseline M (SD)	Post-training M (SD)	Follow-up M (SD)	F(p-value)
EYT	30.50(10.41)	33.10(11.05)	35.10(11.04)	8.58(.007)*

Measure	Baseline M (SD)	Post-training M (SD)	Follow-up M (SD)	χ^2(p-value)
Length of utterance				
MLU	2.03(1.01)	2.65(1.23)	2.59(0.95)	5.60(.061)
SWU	20.90(11.69)	36.90(15.96)	31.50(14.33)	7.40(.025)
MWU	11.40(9.22)	31.90(21.33)	30.60(15.54)	12.20(.002)**
Total utterance	32.30(16.45)	68.70(25.47)	63.90(23.35)	15.20(<.001)**
No. of words	64.10(42.79)	190.50(137.91	168.20(85.01	15.00(<.001)**

Note. M = Mean; SD = Standard Deviation; EYT = Early Years Toolbox; MLU = Mean Length of Utterance; SWU = Single Word Utterance; MWU = Multi-word Utterance.

* Adjusted p-values for multiple analyses of variance that are significant at the .05 level. ** Adjusted p-values for multiple Friedman's tests that are significant at the .05 level.

Post-training effects. Significant increases in children's expressive language were found for baseline to post-training comparisons, including: EYT (p = .017, d = -0.25), MWU (p = .005, d = -2.22), total number of utterances (p = .001, d = -2.21), and number of words (p = .002, d = -2.95). All children performing within the 75th percentile for the EYT at baseline maintained that level of functioning throughout. One child performing at or below the 25th percentile at baseline achieved a 75th percentile level of performance post-training (Howard & Melhuish, 2017). The child operating within the 50th percentile at baseline achieved a 75th percentile level of performance at post-training (Howard & Melhuish, 2017). Improvements in percentiles achieved post-training were maintained at follow-up.

Despite the lack of significance for the main effects of the intervention for the following child outcomes, there was a large positive effect of the training on SWU (d = -1.37, p = .042), and a medium effect on MLU (d = -0.62, p = .076) post-training. See Table 3.5 for further details of the post hoc analyses for child outcomes.

Follow-up effects. Significant increases in children's expressive language were found for baseline to follow-up comparisons, including: EYT (p = .023, d = -0.44), MWU (p = .011, d = -2.08), total number of utterances (p = .005, d = -1.92), and number of words (p = .002, d = 2.43). One child performing at or below the 25th percentile at baseline and post-training achieved a 50th percentile level of performance by follow-up. Only one child made no improvements in language.

Despite the lack of significance for the main effects of the intervention for the following child outcomes, there was a large positive effect of the training on SWU (d = -0.91, p = .076), and a medium effect on MLU (d = -0.56, p = .221) at follow-up.

Between follow-ups. There was no significant change in children's expressive language between the two follow-ups for EYT (p = .376, d = -0.19), MWU (p = 1.000, d =

0.14), total number of utterances (*p* = 1.000, d = 0.29), and number of words (*p* = 1.000, d = 0.52).

Table 3.5

Summary of post hoc analyses for child expressive language

Child Outcome	Comparisons	*d*	*p*
EYT	Post ‡	- 0.25	.017*
	Follow-up †	-0.19	.376
	Follow-up §	-0.44	.023*
MLU	Post ‡	-0.62	.076
	Follow-up †	0.06	1.000
	Follow-up §	-0.56	.221
SWU	Post ‡	-1.37	.042*
	Follow-up †	0.46	1.000
	Follow-up §	-0.91	0.76
MWU	Post ‡	-2.22	.005*
	Follow-up †	0.14	1.000
	Follow-up §	-2.08	.011*
Total utterances	Post ‡	-2.21	.001*
	Follow-up †	0.29	1.000
	Follow-up §	-1.92	.005*
No. of words	Post ‡	-2.95	.002*
	Follow-up †	0.52	1.000
	Follow-up §	-2.43	.002*

Note. These are the magnitudes and significance of the effect of the dialogic book-sharing training on child outcomes for all three comparisons. Negative Cohen's d reflects a positive effect of the training.
* Adjusted p-values for multiple comparisons that are significant at the .05 level.
‡ Baseline versus post-training
† Post-training versus follow-up
§ Baseline versus follow-up

TA outcomes

Main effects. The observation data shows that the TAs in this sample were already using many of the DBS skills in their regular practice, but there was large variation between individuals as demonstrated by the standard deviations (see Table 3.6). Emotion

coaching and linking were the behaviours used least frequently at baseline. There was an increase in frequency between baseline and first follow-up and then a decrease in frequency at the second follow-up for most observation outcomes. The exceptions to this were emotion coaching which increased at each follow-up; praise which decreased at each follow-up; verbal labelling which decreased at first follow-up, then increased at second follow-up; and critical statements which stayed the same at first follow-up and increased slightly at second follow-up. The greatest gains were found for linking, which almost tripled in frequency post-training, and reflections and encouragement which both doubled post-training. Reflections was the only outcome that remained at double the baseline frequency at follow-up.

A Friedman's non-parametric test showed significant changes in the frequency of TAs use of reflections ($\chi^2(2) = 11.62$, $p = .003$), linking ($\chi^2(2) = 6.84$, $p = .033$), and verbal questioning ($\chi^2(2) = 10.36$, $p = .006$) during book-sharing. However, only reflections remained significant once Bonferroni corrections had been applied (adjusted $p = .004$). An ANOVA showed no significant effect of DBS training on the frequency of TAs' use of questions: $F(2, 20) = 2.32$, $p = .124$. The Greenhouse-Geisser estimate of the departure from sphericity was minute for this ($\varepsilon = .004$), so sphericity was assumed. For the next measure, the Greenhouse-Geisser estimate of the departure from sphericity was $\varepsilon = .68$, so the degrees of freedom were adjusted. It appeared there was a large, significant, negative main effect of training on TAs' sense of competence, $F(1.36, 13.62) = 12.14$, $p = .002$.

There were no significant changes in the frequency of praise ($\chi^2(2) = 3.66$, $p = .161$), encouragement ($\chi^2(2) = 5.02$, $p = .081$), verbal labelling ($\chi^2(2) = 1.48$, $p = .478$), emotion coaching ($\chi^2(2) = 4.43$, $p = .109$), critical statements ($\chi^2(2) = 4.63$, $p = .099$) or response opportunities ($\chi^2(2) = 2.91$, $p = .234$) during the intervention period. See Table 3.6 for further details of the main effects of the training on TA outcomes.

Table 3.6

Summary of the Main Effects of the Training on TA outcomes (n = 11)

	Baseline M (SD)	Post-training M (SD)	Follow-up M (SD)	F(p-value)
TA Competency	67.36(6.12)	66.18(5.67)	62.36(4.34)	12.14(.002)*
TA Behaviours[a]				
Questions	20.64(4.34)	26.45(12.68)	26.82(9.56)	2.32(.124)

Measures	Baseline M (SD)	Post-training M (SD)	Follow-up M (SD)	χ^2(p-value)
TA Behaviours[b]				
Praise	8.55(7.05)	7.91(6.55)	5.09(4.25)	3.66(.161)
Encouragement	7.73(5.61)	15.64(14.12)	14.18(8.87)	5.02(.081)
Verbal labelling	14.27(7.07)	11.72(9.72)	12.18(8.54)	1.48(.478)
Verbal questions	28.27(15.26)	45.00(16.93)	39.64(18.10	10.36(.006)
Reflections	13.27(8.39)	29.00(15.30)	25.91(12.81	11.62(.003)**
Emotion coaching	7.64(5.01)	12.64(8.24)	13.55(5.50)	4.43(.109)
Linking	3.36(4.13)	9.82(6.15)	5.82(4.14)	6.84(.033)
Critical statements	0.09(0.30)	0.09(0.30)	0.45(0.69)	4.63(.099)
No opportunity	13.82(9.05)	18.73(10.39)	15.82(11.82	2.91(.234)

* Adjusted p-values for multiple analyses of variance that are significant at the .05 level
** Adjusted p-values for multiple Friedman's tests that are significant at the .05 level
[a] Normally distributed
[b] Not normally distributed

Post-training effects. Planned contrasts revealed that compared to baseline the frequency of reflections were significantly higher post-training (*p* = .009, *d* = -1.87), but there was a non-significant decrease in TAs' sense of competence between baseline and post-training (*p* = .308, *d* = 0.19). Despite the lack of significance for the main effects of the intervention for the following TA behaviours, there were large positive effects post-training for: encouragement (*d* = -1.41, *p* = .099), verbal questions (*d* = -1.10, *p* = .004), emotion coaching (*d* = -1.00, *p* = .329), linking (*d* = -1.56, *p* = .032), and questions (*d* = -1.34, *p* = .318); and a medium negative effect on response opportunity (*d* = -0.54, *p* = .407). See Table 3.7 for further details of the post hoc analyses for TA outcomes.

Follow-up effects. Planned contrasts revealed a large significant increase in TAs' use of reflections (*p* = .017, *d* = -1.51), and a large significant decrease in TAs' sense of competence (*p* = .011, *d* = 0.82). Despite the lack of significance for the main effects of the intervention for the following TA behaviours, there were large positive effects of the training on encouragement (*d* = -1.15, *p* = .497), emotion coaching (*d* = -1.10, *p* = .165),

and questions (d = -1.42, p = .225) at follow-up; and a medium positive effect of the

training on verbal questions (d = -0.74, p = .165), and linking (d = -0.59, p = 1.000). There

were also positive effects of the training, which were large for critical statements (d = -

1.21, p = .859), and small for response opportunity (d = -0.22, p = 1.000).

Between follow-ups effects. There was no significant difference between the

follow-ups in TAs' use of reflections (p = 1.000, d = 0.37), but there was a medium

significant decrease in sense of competence (p = .017, d = 0.63). Additionally, despite the

lack of significance for the main effects of the intervention for the following TA behaviours,

there was a large positive effect of the training on critical statements (d = -1.21, p = .859)

between follow-ups. There was also a positive effect of the training on verbal labels (d = -

0.06, p = 1.000), emotion coaching (d = -0.18, p = 1.000), and questions (d = -0.08, p =

1.000) – but these were negligible in size.

Table 3.7

Summary of the results of post hoc analyses for TA outcomes

TA Outcome	Time point	d	p
SOC	Post [‡]	0.19	.308
	Follow-up [†]	0.63	.017*
	Follow-up [§]	0.82	.011*
Praise	Post [‡]	0.09	1.000
	Follow-up [†]	0.40	.329
	Follow-up [§]	0.49	.329
Encouragement	Post [‡]	-1.41	.099
	Follow-up [†]	0.26	1.000
	Follow-up [§]	-1.15	.497
Verbal labelling	Post [‡]	0.36	.723
	Follow-up [†]	-0.06	1.000
	Follow-up [§]	0.26	1.000
Verbal questions	Post [‡]	-1.10	.004*
	Follow-up [†]	0.35	.602
	Follow-up [§]	-0.74	.165
Reflections	Post [‡]	-1.87	.009*
	Follow-up [†]	0.37	1.000
	Follow-up [§]	-1.51	0.17*
Emotion Coaching	Post [‡]	-1.00	.329

	Follow-up [†]	-0.18	1.000
	Follow-up [§]	-1.18	.165
Linking	Post [‡]	-1.56	.032*
	Follow-up [†]	0.97	.329
	Follow-up [§]	-0.59	1.000
Questions	Post [‡]	-1.34	.318
	Follow-up [†]	-0.08	1.000
	Follow-up [§]	-1.42	.225
Critical statement	Post [‡]	0	1.000
	Follow-up [†]	-1.21	.723
	Follow-up [§]	-1.21	.859
Response opportunity	Post [‡]	-0.54	.407
	Follow-up [†]	0.32	.497
	Follow-up [§]	-0.22	1.000

Note. These are the magnitude and significance of the effect of the dialogic book-sharing training on TA outcomes for all three comparisons. Negative Cohen's d reflects a positive effect of the training.
* Adjusted p-values for multiple comparisons that are significant at the .05 level.
[‡] Baseline versus post-training
[†] Post-training versus follow-up
[§] Baseline versus follow-up

Acceptability of the training. The TAs' feedback in the end of training evaluation questionnaire was positive overall. The majority of participants reported that the training was beneficial, and that the video clips, opportunities to practice the skills and discussions were useful. For these questions the lowest responses received were neutral meaning no one disagreed. Additionally, all participants either agreed or strongly agreed that the summary sheets were useful. The only question that received any negative response was regarding whether participants felt there was a need for a Welsh medium training. However, most participants gave neutral responses. Together the findings from this questionnaire indicate high satisfaction levels (see Table 3.8).

Table 3.8

TAs' End of Training Evaluation Responses

Item	Modal rating	Mean ± SD (range)
1. I found the training beneficial	Agree	3.82 ± .60 (3 – 5)
2. The examples shown in the video clips were useful	Agree	4.00 ± .45 (3 – 5)
3. The practice sessions were useful	Agree	3.82 ± .60 (3 – 5)
4. The discussions after practice sessions were useful	Agree	4.00 ± .45 (3 – 5)
5. The summary sheets were useful	Agree	4.20 ± .42 (4 – 5)

| 6. It would be useful to have a Welsh version of the training | Neutral | 3.64 ± 1.21 (1 – 5) |

Note. Scores of 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Discussion

The main aim of the quantitative analysis of this thesis was to assess the efficacy of using a brief online dialogic book sharing training to upskill TAs and to improve their sense of competence in supporting children's language development. In addition, it explored TAs' satisfaction with the training and whether TAs' use of the skills could enhance child language development for pupils in Welsh primary schools. The results suggest that providing TAs with DBS training did change their practice when book-sharing, as six out of the eight positive behaviours increased in frequency post-training. However, most of these increases were not significant despite having moderate to large effect sizes; the exception being reflections for which the effect of training was large and significant. Despite limited significance, these changes in behaviour were maintained at second follow-up – but effect sizes were diminished. TAs also reported reduced sense of competence (SOC) following the intervention period. Despite this, TAs were satisfied with the training; and the TA-led DBS intervention improved children's expressive language as well as the number and length of their utterances.

In terms of TAs' application of the skills, they used all of the DBS skills covered in the training. Reflections was the most frequently used tool – the training had a statistically significant effect on TAs' use of this skill. This is in line with previous findings (Owen, 2022; Williams et al., 2024). Verbal questions and linking were also used more frequently than other DBS techniques but did not achieve statistical significance. For most of the TA behaviours there were large post-training benefits (Cohen's d ranged from -1.00 to -1.87). These included encouragement, verbal questioning, reflections, emotion coaching, linking, and questions. There were moderate to large benefits at follow-up for the same behaviours (Cohen's d ranged from -0.59 to -1.51), with a reduction in effect size for all of these behaviours except emotion coaching and questions for which the effect sizes

increased slightly. There were, however, observed increases in TAs' use of both negative strategies. These increases had small to large effect sizes, and occurred at follow-up for critical statements and, both, post-training and at follow-up for response opportunity. Overall, this suggests that providing TAs with DBS training does have short-term effects on their behaviour during book-sharing interactions; however, given the reduced effects at follow up, improvements may be required to improve its longer-term effects.

When we compare the effect sizes of the current study to other evidence the findings are mixed (i.e. effects are in line with, larger, or smaller than those found by other research). Overall, there was a mean effect size of 0.93 post-intervention and 0.88 at follow-up across all ten of the TA observed outcomes in the present study. This demonstrates a large effect of the training on TAs behaviours during book-sharing, which is in line with the large effects reported in Dowdall et al.'s (2020) meta-analysis for caregiver behaviour changes. It is difficult to draw direct comparisons between studies regarding changes in adult behaviour during book-sharing because studies have used different populations, different DBS interventions with varying lengths of training, and have different focuses which impact how they categorise DBS behaviours of interest. Compared to TAs, who have decisions made about their deployment by teachers and senior leadership (Webster et al., 2011), parent and pre-school teacher samples, which have been investigated by previous research (e.g. Murray et al., 2023; Owen, 2022; Williams et al., 2024; Valdez- Menchenca & Whitehurst, 1992), have more autonomy to control the frequency with which they implement book-sharing. Unlike some TAs in the current study (see Chapter 4), parents may be better able to implement book-sharing more regularly and on a one-to-one basis. On the other hand, TAs may generally be primed to be effective at implementing a DBS intervention with shorter training than parents. This could be because TAs are constantly exposed to teachers who might model language for effective teaching, which TAs have been shown to imitate (Radford, Bosanquet, Webster & Blatchford, 2015), hence why some of the sample appeared to already be using some of the DBS skills at

baseline. However, it is not sufficient, for either the TAs or the children they support, for

TAs' main source of pedagogical knowledge to come from the class teacher's live whole-

class instructions.

TAs are an important part of the school workforce because they work with children

with the greatest challenges, but often do not receive the recognition or the training they

deserve and require to fulfil the pedagogical aspects of their role (Webster et al., 2011).

Therefore, it is important that effective training programmes are identified.

The DBS training will have filled the significant gap in TAs' knowledge identified by

previous research (Bowles, Radford & Bakopoulou, 2018) by giving them a better

understanding of how children learn and equipping them with strategies they can use to

foster independence in children.

Most of the previous research conducted in preschool settings does not measure

changes in teacher behaviour during book-sharing. The only exception is Hargrave and

Sénéchal (2000) who assessed teachers in terms of the questions or requests they used

(including use of yes/no questions, wh-questions, fill in the blanks, pointing requests) and

the feedback they gave children (including praise, modelling correct answers, repeating

child utterances, expanding child utterances). Some of these categories overlap with those

assessed in the current study, including verbal questions (wh-questions), praise, and

reflections (repeating child utterance). When we compare the mean differences observed

between pre- and post-intervention in each study, teachers in the dialogic condition in

Hargrave and Sénéchal's (2000) study were seven times more likely to repeat children's

utterances (compared to 1.6 times in the current study) six times more likely to use wh-

questions (compared to 1.6 times in the current study), five times more likely to use praise

(compared to 0.9 times less likely in the current study) post-intervention compared to

baseline. These differences in the magnitude of change are likely due to differences

between the two studies in terms of: (1) the populations used, (2) the baseline skill levels

of the practitioners, and (3) the length of both the training provided and in the intervention

periods. In Hargrave Sénéchal's (2000) study teachers were provided an hour group training session and the intervention with pre-school children took place over a four week period (i.e. 20 weekdays). In the current study, TAs were provided two half days of training (6 hours in total) and were encouraged to practice the skills as much as possible for the 5 weekdays in between the two training sessions and for 4-10 working days between the last training session and follow-up assessment. It is important to note that variation in return to school dates and getting back into a routine will have impacted how feasible it would have been for TAs to implement the intervention during the period between the last training session and follow-up assessment in the current study.

In regard to child development, the findings of the current study add further support to the growing body of evidence which suggests that DBS interventions improve children's expressive language (Bus et al., 1995; Dowdall et al., 2020; Mol et al., 2008; Pillinger & Vardy, 2022). They also extend the findings of previous studies, which have consistently demonstrated that DBS had a significant positive effect on the expressive language of children who attended pre-school settings, by demonstrating DBS's efficacy when implemented by TAs with older children who have already entered school (Fluery & Schwartz, 2016; Hargrave & Sénéchal, 2000; Lonigan & Whitehurst, 1998; Opel, Ameer & Aboud, 2009; Towson, 2019; Valdez- Menchenca & Whitehurst, 1992; Whitehurst et al., 1994). This has important implications for schools' ability to meet the needs of the increasing numbers of children entering school with school readiness skill deficits (High, 2008; Savanta, 2024).

A key observation was that whilst the standardised measure of expressive language (Early Years Toolbox score) showed consecutive increases at each post-training assessment, the naturalistic measures of children's use of language (i.e. number of single- or multi-word utterances, total utterances, and words used) during the observed book sharing interactions varied with TAs' use of the DBS skills. The findings for the standardised measure of expressive language could be explained by typical language

development that occurs with the passing of time and typical language exposure from school and parents rather than the DBS training (Pillinger & Wood, 2014). This could only be established with a control group, which was not present in the current study. However, this is unlikely because the effect sizes for the DBS training were consistent with those found post-intervention (Hargrave & Sénéchal, 2000) and at follow-up (Murray et al, 2023) by other researchers who had used control groups; and in a recent meta-analysis (Dowdall et al., 2020). This could be because, in the current study, the entire sample completed all training sessions like Murray et al.'s (2023) per protocol group. Additionally, the post-training assessment was conducted within the same time frame as that used by Hargrave and Sénéchal (2000). The findings for the naturalistic measures of language suggest the direct effect of the DBS training as children produced a greater number of utterances, words, and longer sentences (i.e. multiple word utterances) during book-sharing interactions immediately post-training when TAs use of the skills were at their peak. The current findings are in line with previous findings (Lonigan & Whitehurst, 1998; Valdez-Menchenca & Whitehurst, 1992), but extend our knowledge further as these studies did not include follow-up assessments. In the current study, the follow-up provided evidence for a direct association between TAs' DBS behaviour and child language because the benefits to language reduced with the reduction in training effects on TAs use of the skills at follow-up.

It is important to note that 80% of the participating children were female. This may have contributed to the positive impact of the training on children's language because it is well established that there are sex differences in the rate of children's language development (Adani & Cepanec, 2019). Whilst sex differences are rarely statistically significant, they are extremely consistent across studies and therefore, should not be ignored (Etchell et al., 2018; McCarthy, 1953). Importantly, all significant effects of sex on children's language development were in favour of girls (Adani & Cepanec, 2019), and effect size varied with age and verbal task (Etchell et al., 2018; Lange, Euler & Zaretsky,

2016; Marjanovi-Umek & Fekonja-Peklaj, 2017; Toivainen, Papageorgiou, Tosto & Kovas, 2017). Divergence in language development curves begin in the second year of life with the emergence of true speech (Irwin & Chen, 1946 as cited in McCarthy, 1953). Between the ages of 2 and 5-years females are more advanced than males in terms of expressive language and sentence complexity (Bornstein, Hahn & Haynes, 2004), both of which are relevant to the current study; but generally, this advantage decreases with age, disappearing around 6-years of age (Bornstein et al., 2004). Many of the children in the present study (n = 7, 70%) were below 6 years old; therefore, further trials involving equal numbers of male and female children are required to determine whether developmental sex differences influence the impact of TA-led DBS interventions with this age group (3-7-years old). Confirmation of universal benefits of the TA training on both male and female children would be crucial for justifying wider roll out of this professional development programme for TAs.

The significant reduction in TAs' sense of competence found in the current study contrasts with previous research, which found a significant improvement in competence and confidence post intervention for parents (Owen, 2022). However, it is important to note that between baseline and post-training there appeared to be no effect of the training on competence, while there were medium and large effects observed between follow-ups and between baseline and second follow-up, respectively. This, paired with TAs' reports (Chapter 4) that the timing of the training within the academic year was not ideal, could suggest the reduction in SOC might reflect more general levels of satisfaction in their role as a TA which might naturally fluctuate throughout the school year rather than a specific effect of the training on their sense of competence supporting children with their language development.

Another aim of the quantitative analysis was to determine the acceptability of the training. TAs found the training was acceptable. This was indicated by the lack of attrition. All participants attended both training sessions and made themselves available for the

post-training and follow-up assessments. Again, this interpretation should be viewed cautiously because evidence suggests TAs lack autonomy (Webster et al., 2011), and the decision to join the study was made by headteachers. The lack of attrition could also reflect a willingness to participate in any training that TAs are offered because previous research has found that TAs are dissatisfied with the training and development opportunities available to them (Webster et al., 2011). Despite this, in line with previous research (Murray et al., 2023), the training was well received by most participants with positive self-reports, regarding the included videos, opportunities for practice and discussion, and summary sheets, provided in the end of training evaluation questionnaire (reported in this chapter). This is further explored in Chapter 4, which reports on the post intervention interviews. Therefore, the online DBS training appears to be effective at engaging TAs.

Despite the promising findings, the current study found fewer significant increases in TAs' use of the DBS skills post-training than previous findings for online and school-based delivery of a DBS training for parents (Owen, 2022; Williams et al., 2024). However, the Books Together programme, used in these previous studies, is much longer than the training in the current study (two 3-hour sessions) as it consists of weekly two-hour sessions, over a 7-week period (14 hours in total; Williams et al., 2024). Whilst both durations would be classed by Dowdall et al.'s (2020) review as "medium to high intensity" as they both consisted of multiple sessions which were longer than 60 minutes in total, the training duration in the current study would sit lower in the range of effective interventions than Williams et al.'s (2024) duration. The shortened duration may have meant TAs had less time to digest the new information they received as the skills were not introduced as gradually as they were in the 7-week programme. Additionally, because of the online format, TAs did not have the opportunity to be observed practicing the skills with the children they were supporting or to receive feedback on their real-world practice of the skills from the facilitator. They also had less time to practice with children between

sessions. The reduced time to process, and to practice, the new skills may have impacted TAs' memory, and frequency of use, of the skills.

To overcome these limitations, future studies could make the training longer. However, there is a greater risk of attrition in doing this. To reduce this risk, the author recommends keeping the first session the same (covering building and enriching, linking, and numbers and counting) and then introducing feelings, intentions, perspectives, and relationships as stand-alone sessions with time to practice the skills in between sessions – meaning there would be five sessions in total. Additionally, to enable TAs to receive feedback on their use of skills with children, future studies could either provide face-to-face training that involves children from a nearby school attending after the PowerPoint presentation has been delivered or have the research team attend TAs' schools between training sessions to complete observation and feedback sessions – the former being a less time consuming option for both the research team and schools.

Another explanation for the fewer significant results is that significance is linked to sample size (Field, 2018), and the sample in the current study was small (n = 11). Small samples are associated with larger standard error and reduced statistical power to detect effects, resulting in them being deemed non-significant (Field, 2018) despite larger effect sizes for changes in TAs' behaviour than Owen (2022) found for parent behaviour. Overall, there was a mean effect size of 0.93 post-training and 0.88 at follow-up across all ten of the TA observation outcomes in the present study in line with those reported in Dowdall et al.'s (2020) meta-analysis for caregiver behaviour changes. Given that effect sizes are not confounded by sample size, effect sizes may offer less misleading interpretations of the effect of the training (Field, 2018). However, the interpretations of the training's benefits should still be treated with caution, because sample size affects the degree to which the sample effect size represents the population (Field, 2018). Therefore, larger trials, with larger sample sizes, are required to determine more accurately the effects of this DBS training for teaching support staff.

This study did not include a control group (in which TAs did not receive DBS training) or undertake any statistical analyses that directly measured the interaction between the changes in TAs' behaviours and child language outcomes. This was because the sample size and variability of responding within the TA and child participants did not justify this. However, this means it cannot be ascertained whether the changes in children's vocabulary acquisition occurred as a direct result of the DBS training, extraneous variables, the Hawthorne effect, or simple passage of time that would have occurred through participation in the regular school curriculum (Pillinger & Vardy, 2022). Despite this, the DBS intervention encourages TAs to ask more complex, open-ended questions which encourage the children's independent thinking and active participation (Deshmukh et al., 2019; Radford et al., 2011; Rubie-Davies et al., 2010), which may have contributed to the significant increases in children's number of utterances and increased use of multi-word utterances.

It is worth noting that, for one of the baseline assessments, alternative books that were not text light were used. This was due to the researcher providing Welsh medium, rather than English medium, books at an English medium school. However, this did not appear to affect TA behaviour as all TAs read the book verbatim at baseline regardless of the book used. The trial also, did not impose inclusion criteria regarding the type of children that the TAs should target with the intervention, despite suggesting that they should be children who would benefit from support with language skills. Previous research suggests improvements in vocabulary are greater for children from low-income households (Wasik, Bond & Hindman, 2006) whose vocabularies are below the norm for their age (Huebner, 2000).

The current study failed to partial out effects between individual TAs that were more engaged in the training and able to implement DBS more frequently and with more fidelity. Some TAs implemented the skills with better fidelity than others; as demonstrated by the large standard deviations and the large positive effects of the intervention on negative

strategies, particularly, response opportunity. It is possible that this reflects differences in the frequency of book-sharing interactions that TAs achieved, which has been shown by previous research to have a significant influence on outcome (Lonigan & Whitehurst, 1998).

With the Covid-19 pandemic having resulted in increasing the number of children arriving at school with deficits in their language abilities, which underpin school readiness and provide the foundations for individual children's life trajectories, it is important for research to develop evidence-based professional development training for school-based staff that will improve child outcomes. The current study provides preliminary evidence for the acceptability and efficacy of an online brief dialogic book-sharing training for teaching support staff. Overall, the results provide further support to the literature, which suggests that TAs can be trained to interact with children in similar ways to teachers and have a positive effect on pupil's academic progress (Sharples et al., 2015), as demonstrated by the fact that children made progress in their linguistic development coinciding with changes in TAs' skills after the DBS training. The increased use of verbal questions and emotion coaching demonstrates that TAs were engaged in dialogic teaching, asking more cognitively challenging questions which required more independent thinking and speculation (Alexander, 2006). This alongside TAs increased use of positive feedback in the form of encouragement and reflections, and their minimal use of corrections (critical statements), demonstrated that TAs were encouraging the children to participate and personally construct their own conceptual understanding of what was happening in the book rather than providing answers (Alexander, 2006; Fisher, 2007; Lyle, 2008; Vygotsky & Cole, 1978). This style of interaction is typically more prevalent in teacher-pupil interactions than TA-pupil interactions (Rubie-Davies et al., 2010). These findings are of public health importance, therefore, providing justification for a larger, more rigorous randomised controlled trail to further explore the association between TA behaviours during book-sharing and children's language abilities. It would also be prudent for future

trials to specifically focus on the impact of TA-led DBS intervention on language outcomes

for children from low-income backgrounds with language deficits.

Chapter 4:

TAs' Perceptions of the Dialogic Book Sharing

Training and Implementing the Skills in School:

Qualitative Findings

Introduction

This chapter reports the qualitative findings obtained from the interviews with teaching assistants (TAs) that were conducted at follow-up. This mixed-methods approach produces comprehensive findings because the quantitative data outlined in Chapter 3 provided information regarding the effectiveness of the training (described in Chapter 3) and the size of its effects on TAs behaviours and children's expressive language. The qualitative data reported below explores the reasons underlying these effects, and how they can be maintained, or even improved (Lindsay, 2013). This therefore increases the likelihood of making valid inferences about the quantitative findings.

Recent reports from both parents and teachers have indicated that the effects of the Covid-19 pandemic are still having an impact today, as increased numbers of children are entering school without the basic skills that they need to learn (Savanta, 2024). This has been attributed to the disrupted access to early childhood education and care during the pandemic (Savanta, 2024). Children with additional learning needs often receive support from TAs, who are typically undertrained to provide adequate support (Rubie-Davies et al., 2010; Webster et al., 2011). Dialogic book-sharing (DBS) programmes delivered by parents and early childhood education staff have been shown to be effective in improving the school readiness of pre-school children (Dowdall et al., 2020). Despite this, to our knowledge, there are no online DBS training programmes available for teaching support staff to enable them to deliver DBS intervention to children in their foundational years of schooling. Additionally, there is little qualitative evidence within the general DBS literature exploring the reasons why DBS works (e.g. Murray et al., 2023; Owen, 2022; Williams et al., 2024), and none that specifically explores how to maximise implementation in a school context. Therefore, the aims of the qualitative methods in the current study were to explore:

1. TAs' satisfaction with the DBS training

2. TAs' perceptions of the direct benefits of the training for their professional development and the indirect benefits for children's development

3. TAs' perceptions regarding the feasibility of implementing the skills within primary schools.

Method

Design

Thematic analysis was used to interpret interview data collected from participants who attended the online dialogic book-sharing training and implemented it in school with children. Thematic analysis is a method of identifying, analysing and reporting themes within the data (Braun & Clark, 2006). This method was selected to provide a richer, more detailed, and complex analysis alongside the quantitative data reported in Chapter 3.

Ethical considerations

Ethical approval was granted by Bangor University School of Psychology Ethics Committee (application number: 2023-17329). All participants provided written informed consent which outlined their right to withdraw without penalty at any time (see Appendix R).

Participants

The participants were the same eleven TAs reported in Chapter 3 of this thesis.

Procedure

At the follow-up assessment, after the recorded TA-child book-sharing interaction and the child returned to their classroom, the researcher collected data through semi-structured interviews with the TAs on a one-to-one basis. The interviews lasted between 10 and 50 minutes and were audio recorded using a Dictaphone and transcribed verbatim into a word document on the University of Bangor's secure One Drive server by the interviewer. The interview transcripts were subjected to theoretical thematic analysis, using Nvivo data analysis software. This involved the author and JH (an experienced qualitative analyst and supervisor) independently reading and familiarising themselves with the data;

identifying initial codes; and fitting these codes into themes that answered the specific research questions (Braun & Clark, 2006) regarding TAs' satisfaction with, and the perceived benefits of the training, and the feasibility of implementing book-sharing in primary schools. Comparisons were drawn across the data set and themes were identified at a semantic level – providing explicit or surface meanings of the data (Braun & Clark, 2006). A realist method was adopted, which reports participants' experiences, meanings, and reality, rather than a constructionist method which examines how these aforementioned concepts are influenced by discourses operating within society (Braun & Clark, 2006). The author and JH then met to discuss the themes and the author named and defined the themes of interest presented in this thesis. Attempts to explore the significance of these patterns and their broader meanings in relation to previous literature are presented in the discussion.

Results

Initial analysis identified 333 codes. These codes were reviewed and merged by the first researcher until saturation point was reached. This process produced four main themes with 16 subthemes, which together captured 357 participants responses across 11 transcripts. How representative these subthemes were of the sample is presented in Table 4.1.

All of the main themes and most of the subthemes were formed as part of the pre-determined theoretical framework, which aimed to answer the research questions regarding the acceptability of the book-sharing training to TAs and the perceived benefits and feasibility of implementing the skills in schools. Only two subthemes (the adjustment to book-sharing and child engagement) arose from a more inductive analysis of the data.

This section will present and define the themes and subthemes, using extracts from the data to illustrate the analysis. Anonymity was maintained by assigning individual identification numbers to each transcript.

Table 4.1

The Number of Respondents with Comments Coded Under Each Theme or Subtheme

Theme	Subtheme	%(n)	Items
1) Experience of book-sharing and related training	a) Previous training and how this differed from the book-sharing training	73% (8)	10
	b) What TAs liked and/or disliked about the book-sharing training	100% (11)	54
	c) Satisfaction with the book sharing training	100% (11)	30
2) Experience of implementing book-sharing	a) Frequency and format of implementation	100% (11)	26
	b) Experience of using the skills	91% (10)	42
	c) Experiences of using the books	100% (11)	19
	d) The adjustment to book-sharing	91% (10)	31
	e) Child engagement	91% (10)	20
3) Positive outcomes	a) Changed the way TAs read	91% (10)	26
	b) Increased interaction and language use	82% (9)	22
	c) Helped to build TA-child rapport	64% (7)	16
	d) General benefits for the children	73% (8)	14
4) Barriers to implementing book-sharing and ways to overcome them	a) Time	91% (10)	33
	b) TAs' lack of control of timetable	55% (6)	8
	c) Children's behaviour and ability	91% (10)	33
	d) TA sense of competence	9% (1)	3

1) Experience of book-sharing and related training

Study participants described their experiences and changing perceptions of the book-sharing training, and how these differed from their experiences of previous related training. In doing so, participants expressed their satisfaction with the training and a desire to continue to implement the programme in their schools.

1a) Previous training and how this differed from book-sharing training. Four participants (36%) reported that this was their first experience, throughout their careers as TAs, of training that specifically taught them skills for using books with children. Only four participants (36%) mentioned attending any previous training courses related to improving children's literacy and language skills; these included literacy, Welsh phonics, and British Sign Language courses.

> *TA 1: "I don't think that I can recall that I've had any sort of reading book*
>
> *training before."*
>
> *TA 9: "I've done sort of single days training on things like science and literacy*
>
> *in the classroom."*

One of the TAs (9%) who had attended literacy training spoke about how this training differed in focus and approach from the book-sharing training:

> *TA 9: "That was kind of to do with reading skills and encouraging children to read*
>
> *more, so it was... a different sort of emphasis. This was sort of more specific and*
>
> *structured I'd say in the approach… Whereas the other was more general… like*
>
> *how to encourage children to read in different contexts, you know in the class and*
>
> *things like that."*

1b) What TAs liked and disliked about the book-sharing training. Participants provided mixed reviews regarding the content, practice sessions, length, and mode of delivery of the book-sharing training. All participants (100%) made positive comments about the training, however, five TAs (45%) made negative comments. One participant (9%) found the amount of content overwhelming in such a brief training. Others (n = 5, 45%) thought the skills were explained in a good level of detail.

> *TA 4: "So it was a lot to take in."*
>
> *TA 1: "I mean, it's enough to introduce it to sort of show you how to do it and to*
>
> *implement it, I think."*

Along the same vein, three TAs (27%) commented on finding the provision of summary sheets helpful for remembering everything that was covered in the training.

> *TA 3: "And it was good to have the handout as well. So, I could go back... to*
>
> *remind me and stuff."*

Two TAs (18%) enjoyed practicing the skills they had learned with either their colleagues or other TAs they had met from other schools was. However, one TA (9%) found this activity challenging.

TA 9: "I felt that worked quite well, like sort of introducing the technique and trying them out."

TA 11: "And just practising doing it with colleagues really. That was that was good fun yeah."

TA 10: "It was difficult to read to my colleagues like they were children."

Most TAs (n = 7, 82%) thought two half days was a good length. On the other hand, TA 4, who had earlier mentioned feeling overwhelmed by the content, felt the training was not long enough. They suggested increasing the number of sessions and reducing the number of topics covered in each. Three TAs (27%) appreciated the training being split into two half day sessions, so that they could practice skills taught in the first session. Six TAs (55%) liked that this meant they were able to share ideas and talk about their experiences of implementing book-sharing with other TAs from other schools.

TA 8: "I think it's like the perfect length of training."

TA 4: "Yeah, I personally feel if it was spread over like a weekly thing or, you know, to focus on two things per week over three weeks or whatever, that would have been better for me."

TA 9: "I think it was worth breaking up into two sessions in that everyone had... chance to try it out...[and] the second week it was possible to talk a bit about how they'd found it doing it in their school as well."

There were some differences in TAs reports of the suitability of the content to their skill level. With three (27%) reporting it was relevant and one TA (9%) suggesting the content could be improved to better reflect their level of skill and confidence.

> *TA 4: "It's all been relevant."*
>
> *TA 9: "I did feel with the first session that it got off to quite a slow start for teaching assistants who've maybe got more background kind of thing."*

Four TAs (36%) expressed a preference for face-to-face training, however much of the sample (n = 7, 64%) found the online delivery acceptable. Two TAs (18%) referred to prior online training and being accustomed to the increased prevalence of online courses. Two TAs (18%) from the same school who had experienced technical difficulties cited this as typical for online delivery.

> *TA 7: "I think it worked well doing it online and having like the little breakout [rooms]."*
>
> *TA 1: "Yeah, fine. We're a bit used to it now aren't we after Covid."*
>
> *TA 8: "I prefer face to face but everything's changed to online, hasn't it?"*
>
> *TA 7: "Apart from that first day when we couldn't get logged on, but it always happens, doesn't it?"*

1c) Satisfaction with the book-sharing training. TAs ranged in years of experience from 3 – 30 years (with a median of 12 years); consequently four participants (36%) initially had negative views towards the training, believing that they would not learn anything new from it. However, they were surprised to find that they did learn new skills.

> *TA 11: "I was like I can read stories. I've been doing this for years... But yeah, no, I did enjoy yeah. I have learnt stuff which I didn't think I would."*

This change in perspective meant that when asked if they would continue to use the skills, all TAs agreed they would:

TA 4: "I will continue to use the skills. Definitely."

Five TAs (45%) described the training as a versatile approach suggesting it could be adapted for use in different languages and with different media. They also found it appealing because it developed different skills for the children.

TA 10: "because it could be Japanese, French, you could you could do it anywhere couldn't ya?"

TA 6: "You can use Makaton to get the other children on the carpet involved."

TA 1: "I mean, it develops their vocabulary, it's developing their mathematical skills, and their imagination. So no, I don't think there is anything that it does not address."

2) Experience of implementing the book-sharing programme in schools

This theme covers both the TAs' experiences of implementing the skills (i.e., how often, with individuals or groups) and the receptiveness of the children they were supporting to the approach.

2a) The frequency and format of implementation. Six TAs (55%) found it easy to implement book-sharing frequently. One of the TAs who was able to implement it regularly suggested this was because there was a certain day where she had more autonomy.

TA 9: "I think altogether we've done… 14 sessions. So I did nine of those with just [child's name] and five with friends."

TA 10: "Whenever I was covering PPA [Planning, Preparation & Assessment time for teachers] mostly, which was two times a week… I mean, sometimes I did it three or four times a week."

TA 11: "I cover the class on the Wednesday I try and do it then cause I'm more in

charge. It's my input."

The rest of the sample, however, described their frequency of implementation as:

TA 8: "Sporadic, just as and when."

Regardless of how frequently TAs were able to implement book-sharing, all bar one TA (n = 10, 91%) found it difficult to book-share in a one-to-one format in school, especially with the same child. One TA (9%) opted instead to book-share with different individual children whilst doing their routine weekly reading book sessions. Other TAs (n = 7, 64%) described book-sharing with the whole class during story time.

TA 6: "No, I've had [child's name] twice. Ideally, it'd be great to have her every

day but you know the circumstances. But I have used the lessons I've learned

with everybody… I do readers every day."

TA 1: "I haven't been able to practice it one-on-one very often, but I would say at

least three times a week I would read a book with the class."

TAs worked with groups of varying sizes. Some (n = 3, 27%) described their class as a small group; but even this ranged from 7-12 pupils. These TAs felt it was easy to implement book-sharing in a small group setting:

TA 1: "...so it's quite a small group, so it's quite easy to do it with them."

Four TAs (36%) who had read to big groups of children described the experience of book-sharing as wild due to the amount of input they received from the children.

TA 11: "I did it with the whole class, which was a bit a bit wild at one point

because they're all giving me different ideas. But yeah, no and it was really nice."

> *TA 10: "...because there's 26 in the class and they all wanted to say something about something on it. And not just one thing. Once somebody else had said something it sort of clicked something in their imagination and their hand was up again."*

Three TA's (27%) stated they had only used DBS on a one-to-one basis. For these TAs it had been described as a nice change or it had been described as a necessity for the demographic of children they worked with.

> *TA 4: "I've only done it [book-sharing] on a one to one basis though, because trying to get the whole class to sit isn't easy with this group."*
>
> *TA 9: "It's definitely been nice to sort of work with one child, you know because you're often working with big groups, so it is quite nice to... have that contact."*
>
> *TA 3: "I found I've been using it more as a one to one, because we work with additional needs. So actually, it's easier to keep attention on a one to one rather than as a group."*

2b) Experience of using the skills. Some skills were implemented more frequently than others because TAs felt they were easier to use. These included:

> *TA 1: "…countin', comparison, making links, talking about feelings, and building and enriching language would be the main... I think probably they're easier to draw upon."*

Building and enriching was the most spoken about skill (n = 9, 82%) and was described as an important skill, particularly by two of the TAs (18%) from the Welsh medium school.

> *TA 1: "And enriching language is something they [the children] need."*

> *TA 11: "…because we do do most of our stuff in Welsh. But then like, you know,*
>
> *with [child's name] she's not sure of a lot of words in Welsh. So, I ask, I tell her*
>
> *she can say in English if she wants and then I'll tell her what they are in Welsh.*
>
> *So, I do that a lot."*

The second most popular skills were talking about feelings and numbers and counting (n = 7, 64% each). Two TAs (18%) described talking about feelings as a skill they hadn't thought to use when sharing books previously. Two other TAs also commented on the importance of talking about feelings for the children's socioemotional development. Regarding numbers and comparisons, this was used frequently because it was within the children's zone of proximal development.

> *TA 11: "The feeling one was really good because you don't think about that really,*
>
> *when you're reading a book, but you ask them how do you think they feel? How*
>
> *would you feel? I like that."*
>
> *TA 3: "We do a lot of talking about feelings because that's a big thing for us*
>
> *teaching them about emotions."*
>
> *TA 1: "I'd probably say more than others I would put countin*
>
> *comparison…[because] the counting is a skill that they're able to do."*

Linking was mentioned by six TAs (55%). The majority of these TAs (n = 4, 36%) made links to the child's experiences; whereas, one TA (9%) said they mostly made links between different parts of the story:

> *TA 11: "You know, and then ask their experiences as well."*
>
> *TA 9: "And then um yes, linking definitely sort of linking parts of the story, maybe*
>
> *more than linking to everyday life I would say."*

Relationships (n = 3, 27%), intentions (n = 1, 9%), and perspectives (n = 1, 9%) were seen as more complex and weren't mentioned as frequently. One TA (9%) spoke positively about talking about relationships. The other two TAs (18%) felt there was a lack of understanding and engagement from the children with this skill.:

TA 4: "The relationships one went well."

TA 8: "I don't think she really understood properly if I was trying to say oh who's this… She didn't pick up, you know, like oh that's the mum or like that's the brother. It was just oh, that's her friend".

TA 5: "Relationships not much of… She didn't engage on that as much as all the others."

Only one TA (9%) mentioned talking about perspectives and intentions:

TA 9: "…he kind of got into the pattern of… they don't see you know, like the children are seeing, but he can't see he's looking the wrong way, you know, and he'd point that out on every page."

TA 9: "And what was it talking about intentions. Yeah no, I mean, I guess to a certain extent we did… they did talk about saying, yeah, taking the brush because he didn't like baths, so I suppose I suppose stuff did come in."

2c) Experiences of using the books. The Handa books (Handa's Surprise and Handa's Hen) were the most talked about books (n = 5, 45%). They felt the children liked these books for the reasons outlined below:

TA 3: "Handa's surprise we like. That's quite colourful."

TA 9: "It's very simple, isn't it? The Handa's surprise. So, he liked all the animals."

> *TA 4: "it was like a big highlight that book because they could all recognise the*
> *fruit. They got the link that you know the pieces of fruit that they've tried and stuff*
> *like that. So that was the favourite I think."*
>
> *TA 6: "See the two little Handa's ones I've read those three times... They just*
> *really enjoy the sequencing."*

The Harry books (Harry by the Sea and Harry the Dirty Dog) received more mixed reviews. Three TAs (27%) reported that the children enjoyed these stories because:

> *TA 1: "They like that because it's funny."*
>
> *TA 9: "he liked the fact that Harry was going on all these adventures and getting*
> *really dirty and stuff."*

Two TAs (18%) felt the children didn't enjoy the Harry ones as much.

> *TA 9: "Harry the Dirty dog was more complicated story."*
>
> *TA 8: "She preferred, you know, like, Handa's surprise to Harry the dog. Yeah, I*
> *think that one was a little bit too long for her and it's not as colourful, is it? 'Cause*
> *it's mostly black and white with a bit of colour in."*

TAs appeared to be generally satisfied with the books provided as part of the programme. However, the books that received the most attention in the interviews were those without words, with seven TAs (64%) commenting on them. Both the TAs and the children were struck by the novelty of them.

> *TA 2: "Plus the fact is the books that were picked were nice."*
>
> *TA 2: "...in all the years I've worked for flying start mudiad (Welsh pre-school*
> *playgroup) and in the schools, I've never had to read a book with no words."*

> *TA 5: "She does quite like the little helper's book. She quite likes that book. And*
> *all well, all's well and ends well... I think it's because it's different."*

Two TAs (18%) commented on the universal appeal of the books without words to a wider audience of children. It appeared to be easier to engage more resistant or uninterested children in reading activities.

> *TA 10: "...without the words even the ones who are really, really not into it were*
> *getting into it."*
>
> *TA 2: "...that was the one who didn't like books and [would let you read] only two*
> *pages. But now he will sit he'll let you read the story, but he has to get involved."*

2d) The adjustment to book-sharing. For both the TAs and the children, there was an adjustment to book-sharing. One TA (9%) felt there was a change in the way they used the skills and prepared for book-sharing sessions over time:

> *TA 9: "...to begin with, I very much tried to sort of use the skills as it was set out...*
> *I looked very much at the skills before doing the sessions and then after a bit, I*
> *just kind of more just shared the books with him."*

Two TAs (18%) commented on there being a temptation to read the words, especially when they were met with silence from the children. For this reason, they found it easier to use the books without words:

> *TA 1: "Because of what we were taught, it's easier if you don't have the words on*
> *the book initially, because you tend to sometimes if there is a silence, go to the*
> *words."*

For the children, there were varying responses to book-sharing. They either adapted quickly (n =1, 9%) or it took some time to get used to the change in reading style (n = 2, 18%).

TA 8: "No, they just seem to adapt to it really quick."

TA 2: "At first there was a bit sort of why aren't you telling me a story?"

TA 9: "But he kind of got used to the fact of looking at the pictures."

One TA (9%) explained that she felt the book-sharing approach, particularly the number of questions, was anxiety inducing for the child she worked with. English was the child's second language, so the TA was conscious that this might have felt like a test for them. In this instance, what helped the child to adapt to book-sharing was book-sharing in pairs:

TA 9: "I felt that asking too many questions was putting him off because I think it was making him a bit apprehensive, almost like I'm being quizzed. And I think because... English is his second language... I didn't want him to feel under pressure, you know?"

TA 9: "We looked at books like him and me together, and then he looked at it with another child... and he enjoyed that. I think he was more relaxed and confident with the second child sometimes."

Once the TAs had adjusted to using the skills, three (27%) began generalising the skills they had learned in the training to other books, not provided as part of the programme:

TA 9: "We also shared another story that just happened to be in the room when we were doing it."

Two TAs (18%) mentioned already using/planning to use the skills with the children in their personal life.

> *TA 8: "I've been practising it with my son as well... My youngest one... He enjoys*
>
> *it 'cause he makes up his own story really, to go with the pictures."*
>
> *TA 7: "...because I'm leaving now, so I won't be able to really put them into*
>
> *practice in school. But... I've got a niece and nephew and... I think it's changed*
>
> *the way that I will read them stories... personally it's changed how I read stories*
>
> *with any future children that I know really."*

Seven TAs (64%) commented that once they had adjusted, the children enjoyed book-sharing and wanted to do it again; with two TAs adding that they themselves enjoyed it:

> *TA 8: "...they did seem to enjoy being part of the tellin' the story instead of just*
>
> *sitting there listening."*
>
> *TA 2: "And then they wanted to do it again. I was quite surprised because well I*
>
> *was like oh let's do a book and they were like can we do the book with no words*
>
> *and I was like oh alright yeah, we can."*
>
> *TA 5: "I quite enjoy it."*
>
> *TA 7: "It would be nice to be able to do it more."*

2e) Child engagement. Four TAs (36%) described book-sharing working with some children but not others.

> *TA 8: "There's one or two that can't, they don't, they just cut across. But that's just*
>
> *them. That's just normal anyway. But the other kids did you know, like, focus and*
>
> *concentrate."*
>
> *TA 10: "they get bored because they don't understand what's being read to*
>
> *them."*

Five TAs (45%) commented that those children that did engage contributed a lot. Two TAs (18%) felt that, for the most part, children had considered their responses and taken the activity seriously. One TA (9%) described that even "silly answers" were useful.

> *TA 10: "But they've all they've all got so involved in it rather than when I read a book."*
>
> *TA 10: "...and, there's none of them really said anything stupid either that, you know, you'd think they sometimes they'd say something just for the laugh. But no, none of that."*
>
> *TA 8: "Sometimes…[gives] silly answers…So I think well, it's good cause it's you can tell what kind of mood she's in as well from her answers and what she thinks happens in the story."*

Another indicator of children's engagement reported by three TAs (27%) was the amount of time it took them to complete a book:

> *TA 11: "the books with no words... they're quite long, aren't they? Cause well, they're not long, but the children make them longer."*

Two TAs (18%) explained that the same children were contributing to discussions.

> *TA 11: "it's the same children answering."*
>
> *TA 1: "one of the quieter ones… doesn't always engage so the others are are more lively."*

3) Positive outcomes

This theme reports participants' perceptions of the positive outcomes of the training for themselves and the children they have supported. These were divided into four subthemes including changed the way TAs read, increased interaction and it's benefits for children's language, helped to build TA-child rapport, and general benefits for children.

3a) Changed the way TAs read. The vast majority of the sample (n = 10, 91%) indicated that the training had changed their practice.

TA 10: "...it [the training] definitely has changed the way I read a book."

The changes that occurred were mostly direct results of the content of the training. Firstly, slowing down and taking the child's lead (n = 9, 82%). Secondly, giving the children the opportunity to respond (n = 3, 27%). Thirdly, not correcting the child's mistakes (n = 4, 36%). Also, using the pictures to generate questions about the book (n = 3, 27%). *Finally, ignoring the words (n = 2, 18%).*

TA 11: "Just slow down and just do it at their pace sometimes."

TA 1: "I've been allowing them more time to think and stuff like it's OK to sit while they're thinking, whereas I might have sort of pushed them on or helped them a little bit more before."

TA 4: I've not corrected them. I've praised them."

TA 10: "make more of conscious effort now to look for other things that's in in the book."

TA 4: "Whereas before I did read the words to them, which I haven't done since, and I've just let them take the lead."

One change occurred as a biproduct of the TAs change in practice. Four TAs (36%) spoke about thinking more about why they are sharing books with the children, and that this helped them to be more present during the activity and intentional with the skills they were using.

TA 11: "instead of like, it's like the last 10 minutes of the afternoon read a story. And it just you just fly through it cause you're fillin' 10 minutes… I've learned to go slowly… just think about what I'm doing a little bit more sometimes."

TA 3: "you read a book before and it was like you'd you're not thinking about the skills you're using and what how much more there is to read in a story. It's not just reading words off a page, it's so much more than that, and I think it's heightened my awareness I think of that."

3b) Increased interaction and language use. Five TAs commented that the children were more vocal when they used book-sharing skills:

TA 6: "And she's a lot more vocal on the carpet."

TA 10: "they really wanted to say as much as possible."

There was some agreeance among four TAs (36%) that they were better able to engage children in conversations about books. One of these TAs (9%) also felt that involving children in conversation enabled them to hold the children's attention for longer.

TA 7: "I thought it was good to I don't know, I suppose talk more rather than just reading the book it's more of like a two way thing, isn't it when doing this."

TA 3: "I think it's easier to keep their attention because if you find they're drifting off, then… use a bit of linking and saying oh yeah, but have you been to a farm?"

One TA (9%) believed the increase in conversation allowed them to informally assess the child's current language ability, and identify gaps in knowledge and skill that the TA could target for intervention:

TA 9: "...talking about the books… is perhaps quite a good way of informally assessing children's language... you kind of realise more where their limitations are, where there is vocabulary or sort of constructing sentences... it sort of gives you a bit more insight maybe."

Two TAs (18%) spoke about how book-sharing allowed them to scaffold the child's language development and check their understanding of concepts:

> TA 8: *"I think it was a good way to get them to count out loud instead of just saying oh there's five and just guessin'. You can… say, oh, let's count them together and then you can check."*

Three TAs (27%) who had used book-sharing with multiple children described how peers scaffolded each other's learning too:

> TA 9: *"...but then also the friend's English is obviously stronger, so in some instances I guess that sort of helped develop things because he's got me and a friend who's sort of talking about stuff."*
>
> TA 2: *"And they'll explain to the other children."*

Three TAs (27%) who spoke about increased scaffolding of children's language felt this was a protective factor that book-sharing provided, which was particularly crucial for children from disadvantaged backgrounds. This was because TAs believed these children may not be exposed to books, and this form of language scaffolding, in their home learning environment:

> TA 2: *"So they get more involved now... Which I find is quite nice really, because I don't know if they get stories at home."*

As a result of using skills such as asking wh-questions, two TAs (18%) reported that they were able to recognise that children had learned new words. One TA said:

> TA 8: "So if I say ohh, who remembers what this is they're like, oh yeah, I remember. Or I just have to prompt em, you know, with the 1st letter or a clue. And they're like, oh, yeah, it's this. So, they are learning new words."

3c) Helped to build TA-child rapport. Five TAs (45%) spoke about book-sharing helping them to develop relationships with the children:

> *TA 7: "cause it just sort of strengthens the bond that you've got with the child I think."*
>
> *TA 11: "She's a little bit closer to me, so when... she's got her weekly reading book, she likes to come and do that... I'm just building a relationship with her and... it's [book-sharing] made that easier. Much easier."*

Three TAs (27%) felt that book-sharing allowed them to spend more quality time with the children:

> *TA 8: "So I'm spending more time with them reading, not just saying OK, that's it, go and do what you want now."*

Three TAs (27%) felt that the skills helped them to get to know and understand the children they worked with and realise that the children's experiences might mean that they see and understand things differently to how the TAs might expect them to.

> *TA 5: "...how she sees it totally different to what I see."*
>
> *TA 10: "...I was saying how do you think they feel? And she's straight away said they're angry... and I was just thinking oh they were scared but yeah so, it's to give them the choice of feelings... you know, their feelings are not always going to be the same as we presume."*

Spending quality time with, and getting to know, the same child helped two of the TAs (18%) to notice traits of anxiety and to identify individualised ways to support and encourage the child:

TA 11: "I noticed she she's scared of getting things wrong a lot. So, she just goes

umm she looks at you and I go you do know."

3d) General benefits for the children. Four TAs (36%) suggested that book-sharing improved the children's confidence and levels of interaction during reading activities and recall of the stories:

TA 5: "they're a bit more confidence [confident] to put their hands up and say or

to shout out."

TA 6: "...it's helped them recall the story more than… they would have prior."

TA 10: "So we'd recap at the beginning and the recap would take almost as long

because they really wanted to say as much as possible."

Two TAs (18%) commended book-sharing for improving children's imagination. Three TAs (27%) commented on enjoying the children's creativity in making their own versions of the stories.

TA :1 "Sort of developing their imagination a bit more."

TA 10: "Just to see them all like I say, even the ones who are not easily

engaged in it, their imaginations going."

TA 2: "I mean some of the answers we got weren't right, but they were you

know, good enough. It was their version of the story."

4) Barriers to implementing book-sharing and ways to overcome them

This theme encapsulates the barriers TAs faced when trying to implement book-sharing in schools, how they had overcome these, and suggestions they gave for improving future implementation.

4a) Time. The main barrier TAs faced when trying to implement book-sharing in school was time. Nine TAs (82%) described having limited time to implement different interventions, despite wanting to:

> TA 7: *"Like I say that it's hard to get everything into a day anyway. It's like despite adding something new in."*
>
> TA 5: *"'cause there's only you and a teacher in the classroom… if there was a lot more people within the class, you've got time to go out and to have that [book-share] with every child."*

Seven TAs (64%) suggested that to overcome this barrier it would be beneficial to have book-sharing explicitly slotted into the school timetable at a regular time:

> TA 9: *"I suppose making a bit of a space for it... on the timetable."*
>
> TA 5: *"the best time I found with her was in the morning… she was more alert more interested cause by the afternoon she was… lagging a little bit and tired."*

Four TAs (36%) suggested delivering the training earlier in the school year to avoid busy periods, such as the last two terms, where there are a lot of timetable demands which make it even more difficult for them to implement interventions, for example:

> TA 6: *"...there is that much going on in the summer term you don't seem to get round everything. There's trips, there's sports days, there's cover required and it's just the last term is just too full on."*
>
> TA 5: *"…this time of year's not a good time because… this last term is a busy term for these children… maybe the beginning of a term… like the second term in is when they're starting to introduce the books… So, the October into Christmas, so it might be that ideal time."*

4b) TAs' lack of control of timetable. Most of the TAs (n = 6, 55%) illuminated the issue of having a lack of control over the activities that get carried out during the school day. This was the responsibility of the teacher. For this reason, one TA suggested involving teachers in the training.

TA 5: "… it's a bit hard cause the teacher sort of has maps our days out for us"

(TA 7) "...if they [teachers] knew what it was and... what we had done on that course... they could put that little space in... That's something we can't change."

TA 9: "So it might be that I need to go away and talk to [Teacher's name] about fitting a bit in."

TA 5: "Maybe just getting the teachers involved in this [the training]."

4c) Children's behaviour and ability. Two TAs (18%) commented on the impacts of the Covid-19 pandemic on children's school readiness skills. This included children's inability to inhibit their impulses to conform with simple instructions which are typical of both the school environment and reading activities (e.g. sitting still for extended periods of time). *One TA (9%) also commented on the current agenda within schools to get children caught up to age-appropriate levels of skills and knowledge post-pandemic:*

TA 4: "...because trying to get the whole class to sit isn't easy with this group. We've not had a group of children in through nursery like this before... I don't know if it's due to COVID. Or what? But it has been really difficult?"

TA 5: "It's hard because the curriculum's so jam packed... you've got quite a few children that are still on very low ability because the COVID situation so you're trying to bring them up to speed."

There were contradictory anecdotes from among five TAs (45%) about which year group was most appropriate to target with book-sharing. Four TAs (36%) felt it was best suited to reception children; three TAs (27%) suggested year 1; and nursery and year two

each got one vote each (9% each). Only two felt book-sharing was age appropriate for the children they were working with during the study. One TA who felt it was age appropriate was working with children in a small joint class of reception and year one children; the other TA was working in year 2 but had selected a year 1 child to work with as part of the study, as she did not feel DBS was appropriate for year 2 children. The other three TAs all suggested year groups that were either a year or two above or below the year group they currently worked with.

TA 4: "cause I'm in nursery and they're only three turning four. A lot of it wasn't really age appropriate… some of it was relevant. I just felt like I couldn't do all of it because obviously trying to get the child to talk as well about those situations and starting to add up things on the pages and stuff like that… just overall with the whole class, I felt like if they were that year older then possibly."

TA 5: "I think I'd go older. Only because. Maybe year 2, 1, maybe year 1 or 2. Only because they've got a lot more voca... they've got a lot more words to use by then they've learned from nursery to reception."

TA 5: "Where reception they don't quite explore it as well, they get quite like quick to turn the pages on books when they're sitting there with their own books."

TA 6: "And I would take it even further down to nursery reception. To get them glued into the books ready for when they move up and up. Sometimes when you catch them in year one, year two, they've already got the basis of reading they've already got the knowledge of learning what's in the book? So, you're trying to do the opposite of what they've been taught for the past three years, whereas if it's instilled in nursery, I think, yeah, a child would understand a bit more rather than Miss can you just read me the book."

TA 9: "I would do a group with the reception ones that are coming up."

One TA commented on children's lack of ability to focus when other things were going on in the classroom.

> *TA 5: "I've gone outside… in the classroom it's too loud she can't concentrate as much, she doesn't come out with as much… you gotta remember she's only reception, so she can't switch off like some older ones could probably sit, switch off and we could go through it."*

These comments imply it is important to the success of implementation in schools to prepare children for book-sharing. This in turn might help to address the discrepancy in the comments regarding target age.

Other suggestions for overcoming challenging behaviour and other special needs challenges were, firstly, to target specific children who would benefit most from book-sharing, for example, those with language deficits (n = 1, 9%). Secondly, implementing with smaller groups of children (n = 4, 36%) matched by ability (n = 1, 9%) and confidence (n = 3, 27%) were suggested:

> *TA 9: "I definitely think sort of target nursery and reception… because a lot of children even come in with not you know, perhaps not great language skills."*
>
> *TA 11: "..….it would have been nice just to have a smaller group and get the ones that just sit there and don't say much, like [child's name]'s one of those. She doesn't say much in a big group. That's why I thought it be nice to have her just one to one. Yeah, and just get their input."*
>
> *TA 5: "You could even start off beginning with just a group of them all on the same ability, same book, and sit with them but don't read the words and just go through what they think in the pictures."*

One TA (9%) suggested involving parents, by training them to implement book-sharing at home. It was thought that this would afford children the benefit of having more regular one-to-one book-sharing sessions that was not always possible in school:

> TA 9: "But I can see that if nursery staff were on board, they could you know bring in parents and perhaps do a little bit of a session passing on some of those skills."

> TA 9: "And having that focused time, if they did do it at home with parents."

4d) TA's sense of competence. One TA (9%) talked about how not trusting their own instincts got in the way of effectively implementing book-sharing in a way that met the needs of the child they were supporting. They also spoke about how talking through their initial concerns with the researcher during one of the follow-up visits helped to empower them to make changes to how they were implementing book-sharing, which they felt went well. The following extract suggests that providing supervision might be beneficial for increasing the success of implementation in schools:

> TA 9: "I think after like speaking to you and sort of saying... I think I just need to read him one of these stories cause, actually, that's what he needs... sort of trusting your own judgement... I think there was a point early on where I was like don't think this is quite working with [child's name]. But then when I changed how I did it then I felt like it was working again."

This TA also suggested that it would be beneficial to include a message in the training that let's TAs know they are allowed to use the wisdom they have gained from their experience to adapt how they implement the skills and not to be too rigid:

> TA 9: "...within the training to sort of kind of make it sort of clear that… you have permission to also trust your instincts as a TA... and experiment with what works... because it is all laid out all very sort of step by step. And then I think if

you're too if you're too rigid with the system, it can then actually detract from that

sort of more intuitive kind of thing [implementation]."

Discussion

The aim of the qualitative analysis was to explore TAs' perceptions of the

acceptability of the dialogic book-sharing (DBS) training they received and the feasibility,

and benefits, of implementing the skills. This was done to gain an understanding of the

factors that encouraged and/or obstructed TAs' engagement with professional

development training and application of the skills that they had learned. This is important

because TAs have an important role, often working with children with additional learning

needs, and need resourcing to be maximally effective in their roles (Sharples et al., 2015).

Thematic analysis demonstrated that the collective benefits of the training for TAs and

children included: increased engagement with, and enjoyment of sharing books in lessons,

skill development, and improved interpersonal relationships. The barriers to implementing

the skills related to time constraints, practicalities of classroom delivery, and the need for

support from teachers.

The TA's self-reports indicated that, in many cases, they had long years of

experience, but had received relatively little opportunity for training prior to the trial and

none that was directly relevant to helping children develop their oral language abilities.

This provides further evidence that TAs lack training that teaches them specific skills to

adequately scaffold children's participation in the learning process (Radford et al., 2015;

Rubie-Davies et al., 2010; Webster et al., 2011).

Overall, most TAs described the online training as a positive experience. They

found the training: informative, enjoyable, easy to access; provided professional

connections; and was well supported by supplementary resources. However, some

suggestions for improvement were made. One suggestion was to extend the training and

introduce the skills more gradually. Unfortunately, considering the lack of prioritisation of

pedagogical training for TAs within current professional development structures (Brown &

Devecchi, 2013), it is unlikely they would be released from their duties for an extended

training.

One TA experienced slight discomfort practicing the skills with their colleagues in

the training sessions. This could suggest that it might be more appropriate to practice with

children, which is typically included in the face-to-face parent programme provided by

Early Intervention Wales Training (the company that delivered the training in this study).

However, other DBS studies, including the original study conducted by Whitehurst et al.

(1988), have used role-play to enable parents or teachers to practice the skills and this

has been sufficient to yield the desired effects on adult behaviours and child outcomes.

Additionally, evidence suggests that collaboration between colleagues during remote

professional development programmes improve knowledge and skill acquisition by

providing opportunities for collective problem solving and reflective practice (Education

Endowment Foundation [EEF], 2020b).

The final suggestion was that more support was needed to improve the long-term

effects of the training. One potential solution is providing opportunities for contact with the

research team, between training sessions, to assist with any issues with school-based

practice – which has been provided as part of delivery of the programme to parents

(Owen, 2022; Williams et al., 2024). However, evidence suggests that TAs who had

attended online professional development training felt more confident and required less

follow-up telephone support than a comparison group who had attended face-to-face

training (EEF, 2020b).

Some TAs suggested including teachers in the training. This was because they

found timetabling to be a challenge, particularly for individual work with children, and

believed that gaining the support of class teachers could provide a solution to feasibility

issues. If teachers understood what DBS was, and its benefits, they might be more

motivated to plan time for TAs to deliver it within the daily classroom routine. Teachers

would also be able to observe the TA using the skills with children in the classroom to ensure the fidelity of TAs' use of the DBS strategies (Giangreco, Doyle & Suter, 2012; EEF, 2020a) and to provide ongoing supervision. They could then advise TAs on ways to improve their practice or on what skills to use to meet individual children's needs. This way if, during joint planning between the teacher and TA it was deemed appropriate for the TA to deliver the intervention outside the classroom, the teacher could be more confident in the TAs' ability to implement the DBS intervention effectively to address children's language issues, rather than the withdrawal from whole-class teaching resulting in a widening of the attainment gap (EEF, 2020b).

TAs' perceptions of lacking control over their activities within the classroom, and the need for collaboration between TAs and teachers, provides support for the wider pedagogical role model (Rubie-Davies et al., 2010; Webster et al., 2011) and other research that has attempted to make recommendations about best practice in inclusive classrooms (Radford et al., 2015). However, this has wider implications regarding the need for improved prioritisation of interventions within schools, as TAs reported finding it generally difficult to find time to implement any intervention, regardless of their views on its acceptability. This calls into question whether the philosophy of the foundation phase is being fully implemented.

Despite the suggestions for improvement, all TAs stated the training had benefitted their practice and, specifically, that it had made them think to ask questions that they would not usually think to ask whilst sharing books with children. This is in line with the Williams et al. (2024) qualitative findings, in which school-based staff reported changing their own practice when sharing books with children in school, after being trained to deliver the programme to parents. It also supports Radford et al.'s (2015) claim that certain skills must be explicitly taught to TAs rather than being assumed to be known already. TAs reported on the skills they used most, including building and enriching language (which includes using verbal questions), talking about feelings, and linking. This supported the

quantitative findings. They explained that they used these skills more because of children's current ability levels, to help them to stay on task, support their social-emotional development and, for the Welsh medium schools, to aid with Welsh language learning (which typically was not the children's first language). These findings match evidence from teacher and parent reports that many children are behind age expected levels in terms of their cognitive, social-emotional, and physical development because of the disruptions to early childhood education resulting from the pandemic lockdowns (Savanta, 2024).

TAs recognised the benefits of the training in terms of the changes that they observed, during book-sharing, in children's behaviour, including increased levels of interaction, use of language, confidence, recall, and imagination. For this reason, they intended to continue using the skills – which demonstrates the usefulness of the skills. This is consistent with previous qualitative findings for school-based and remote delivery of parent programmes (Owen, 2022; Williams et al., 2024).

Despite their positive appraisal of the training and the perceived benefits reported, the findings should be treated with caution because of the small sample size. The views of the sample may not be representative of the whole TA population. Also, the interviews were conducted by the author, who was known to the TAs because they had conducted all assessment visits and was present virtually during the training, therefore there is a possibility that social desirability bias may have influenced the TAs responses. However, it was made clear to TAs throughout the process that this was a pilot study to assess the acceptability of the training and the feasibility of using of DBS skills in schools, and that their honest feedback was needed for this to be a successful trial.

Another limitation is the lack of quantitative data from time logs tracking how often the TAs actually implemented DBS in school with which to triangulate with their self-reports. Without this information it is impossible to know whether the TAs were implementing DBS at all outside of the observed book-sharing interactions, and therefore whether the effects on children's language were due to the intervention. However, as

outlined in Chapter 3, the benefits to children's spontaneous speech changed in line with TA's use of the skills, suggesting it was most likely TAs' use of DBS skills having an effect rather than outside influences. Additionally, it is hard to establish in terms of frequency of sessions what is a feasible and effective training dose to achieve positive outcomes within a school context. This has already been highlighted as a weakness within the wider DBS literature in a systematic review (Pillinger & Vardy, 2022). Therefore, future research should consider this when designing their protocol, and have an independent researcher conduct the interviews.

Increasing numbers of children are entering school without basic comprehension and communication skills that would enable them to access the curriculum. These difficulties typically persist and determine academic and economic achievement at later stages in life (Beard, 2018). There is evidence of under-identification of children's speech, language and communication needs across health and education settings, due to a lack of knowledge and training to ensure the wider children's workforce are equipped to identify and support children at a universal and targeted level (Bercow, 2008). This pattern has worsened due to the Covid-19 pandemic, causing Education Recovery plans to emphasise the need for training for all teaching staff to enable them to identify and support children struggling with their comprehension and communication (I CAN, 2020). Interventions that train adults to share picture books with pre-school and school aged children are associated with improvements in children's language acquisition (Dowdall et al., 2020; Williams et al., 2024). In this study, the qualitative findings, alongside the quantitative findings (Chapter 3), provide further preliminary evidence for TAs being effective in improving child outcomes when they are provided with training for the implementation of specific and structured interventions (Alborz et al., 2009; Sharples et al., 2015; Slavin et al., 2009). The findings also demonstrate that with minor adjustments the brief online DBS training is a satisfactory, effective, beneficial, and feasible way to, both, upskill school-based staff to improve children's language skills within the Foundation Phase, and provide

children, who arrive at school with school readiness deficits, with the skills required to succeed in their educational journey. Given the increasing numbers of TAs within the school workforce, not providing adequate training and support is ultimately wasting this valuable resource and leading to ineffective deployment models.

Chapter 5:

General Discussion

Thesis Summary and Aims

This discussion summarises the main aims and findings of this thesis, and the relevance and implications of these findings. The strengths and limitations of the current study and directions for future research are also discussed.

The aim of this thesis was to develop, deliver and evaluate a brief, online DBS training for teaching assistants (TAs) who were supporting 3–7-year-old children. The training developed was based on the content of Williams et al.'s (2024) Books Together programme and consisted of two half-days of training (6 hours). This feasibility pilot study included baseline, post-training, and follow-up assessments. These were conducted in five primary schools across North Wales that had received training for their Foundation Phase TAs (n = 11).

This study used a mixed methods approach. Quantitative data was collected through detailed observations of TA behaviour and children's spontaneous speech during book-sharing as well as assessments of TA's sense of competence and children's vocabulary across a two-month period. These methods were used to explore (1) how effective online delivery of dialogic book-sharing (DBS) training was at changing TAs' behaviours during book-sharing interactions and their sense of competence supporting children's language development (2) how effective TAs' application of DBS techniques were at improving both standardised and naturalistic measures of expressive language, and (3) how acceptable the book-sharing training was to TAs. Qualitative data was obtained through interview feedback, which was subjected to thematic analysis. Qualitative methods were utilised to explore (1) TAs' satisfaction with the training (including any suggestions for improvement), (2) TA's perceptions of the benefits of the training for their own, and children's, development, and (3) whether it was feasible to implement book-sharing in primary school settings. This approach was taken to strengthen the validity of conclusions drawn from the quantitative findings.

Thesis Findings

Exploring the Efficacy and Acceptability of a Brief Online Dialogic Book Sharing Training for Teaching Support Staff: Quantitative Findings

Chapter 3 reported the main outcomes. At baseline, observed book-sharing interactions revealed variable use of some of the DBS skills by TAs and the participating children (aged 4-7-years, in nursery to Year 2 classes) were assessed as performing at different levels of language ability. These outcomes were measured using the Dyadic Parent-Child Interaction Coding System, transcription, and analysis of children's utterances during the observed interaction and the Early Years Toolbox (an interactive assessment of children's expressive language). The post-training findings provided positive preliminary evidence for the acceptability of the online DBS training for TAs and the efficacy of TA implementation of the skills. TAs were upskilled (with significant changes in the use of reflections post-training) and produced significant changes in naturalistic measures of children's language development. The major finding was that the changes in children's expressive language were associated with TAs use of the skills, as demonstrated by large short-term benefits, and slightly reduced longer-term effects (medium to large effect sizes) of the training for both TA and child outcomes.

TAs' Perceptions of the Dialogic Book Sharing Training and Implementing the Skills in School: Qualitative Findings

Chapter 4 reported the outcomes of thematic analysis used to explore TAs' feedback regarding their perception of the acceptability of the training and the feasibility, and benefits, of implementing the skills in school. The reported collective benefits of the training for TAs and children included: increased active engagement with, and enjoyment of sharing books in lessons, skill development, and improved interpersonal relationships. The barriers to implementing the skills related to time constraints and practicalities of classroom delivery (particularly one-to-one delivery). The main suggestion for improvement was to include teachers in the training so they have increased awareness of, and motivation to make time for, DBS intervention sessions. This was a key finding as it

provided a possible explanation for the smaller long-term effects of the training found in the quantitative findings – i.e. it was not feasible for TAs to implement regularly enough. The secondary benefit of this suggestion would be that teachers could then provide ongoing supervision to TAs, potentially solving the reduction of effects over time. In addition, it was suggested that the training be extended so that skills could be gradually introduced; however, further larger trials would be required to see how popular this suggestion was. Overall, the feedback suggests that, despite the need for minor improvements, the training was satisfactory, and it was feasible to implement the skills in schools with benefits for both TAs and children.

Relevance and implications of the findings

Chapter 3 provided strong evidence for the practical application of TA-led interventions, particularly in terms of the effects of the TAs' training on children's expressive language abilities. This extended the findings of previous trials that demonstrated that providing DBS training to pre-school teachers was effective at improving children's language skills (Hargrave & Sénéchal, 2000; Lonigan & Whitehurst, 1998; Opel et al., 2009; Valdez-Menchenca & Whitehurst, 1992; Whitehurst et al., 1994).

The evidence of the effect of the training on TAs' skills is more tentative as the effects were not found to be significant. However, the effect sizes suggest the training had a large benefit on six of the ten TA behaviours post-training, and medium to large benefit for these same behaviours at follow-up. There were large mean effects across all ten behaviours post-intervention and at follow-up, which is in line with the large effects of DBS training on parent's behaviours found by a recent meta-analysis (Dowdall et al., 2020). This provides further support to evidence which suggests that TAs are most effective in improving children's academic progress when they receive specific training to deliver evidence-based interventions (Alborz et al., 2009; Sharples et al., 2015; Slavin et al., 2009). Consequently, the present study has gone some way towards enhancing our understanding of how to extend the application of DBS interventions to primary schools

and improve outcomes for children who have entered school without the necessary language skills to allow them to prosper.

Study strengths

This study has several strengths. It reports the first feasibility study for a DBS training aimed at TAs enabling them to support children who are performing below age expected levels in terms of language, a key school readiness skill, in the first years of school. Previous trials, which the current study is based on, assessed school-based and remote delivery of the Books Together programme to parents and found positive results in both contexts – including significant improvements in parenting competencies and various school readiness skills (Owen, 2022; Williams et al., 2024). The school-based study found significant improvements for language but, due to the Covid-19 pandemic, it was not possible to collect post-intervention data for language for the remote delivery trial. Therefore, it was impossible to explore whether the effects of the remote delivery were similar to group delivery (Owen, 2022). In contrast to these studies, and the average 6-8-week length of other DBS programmes (Pillinger & Vardy, 2022), the duration of the training developed for the current study was much shorter. Despite the brief nature of the intervention, short- and long-term benefits on both TA book-sharing behaviours and children's language abilities were observed. Overall, in the current thesis, the online training had small-large effects on standardised and naturalistic measures of expressive language and had large mean effects across all ten of the TA observation outcomes post-training and at follow-up. This is in line with the large effects found for changes in caregiver behaviour and the small effects found for expressive language in a recent meta-analysis (Dowdall et al., 2020). It also adds to the literature, as Pillinger and Vardy's (2022) systematic review, highlighted that very few of the previously published studies had reported effect sizes for the influence of DBS on children's oral language. They concluded, based on the available evidence, that the educational value of Whitehurst et al.'s (1988) programme is modest (Pillinger & Vardy, 2022). The current findings have found large

educational value for Williams et al.'s (2024) programme. Together, this suggests that this brief, online DBS training may provide a cost-effective way for schools to upskill their TAs and improve key school readiness skills within the school context.

A variety of measures were used, including self-report questionnaires, direct observations, and semi structured interviews, to explore the acceptability of the training, the feasibility of TAs implementing the skills in a school context, and the effect of the training on TAs' skills and child expressive language. Furthermore, 20% of the observations were assessed for inter-rater reliability and achieved excellent intra-class correlations of 0.9 or above for all inter-rater comparisons. The multimodal nature of data collection allowed for a richer analysis that offered a multifaceted understanding of the benefits of the training.

This study has high internal validity, because the research design has separated the effects of DBS and children's familiarity with the books used by using unfamiliar books at post-training assessments, like Lonigan and Whitehurst (1998). With regard to the external validity, unlike other studies (Valdez-Menchaca & Whitehurst, 1992) this was a pragmatic intervention delivered by TAs to children in school rather than by a researcher. This reduces instructional and organisational issues, demonstrating the degree to which typical TAs can be trained to engage in DBS, and how DBS can be implemented within the organisational and resource constraints of a typical school classroom.

Given that we were able to detect some significant changes with such a small sample after applying a Bonferroni correction (which reduces a test's power to detect effects), we can be confident that a genuine effect has been identified (Field, 2018).

Study Limitations

Restrictions imposed, by the timescale of a Master's by Research project and the academic year of the primary schools that participated, meant there was limited time after gaining ethical approval to recruit participants and start the baseline assessments in order to keep the trial on schedule. This resulted in a small sample size; meaning that the power

to detect effects was significantly reduced. Additionally, the small sample size means the interview feedback might not be representative of, and generalisable to, the wider TA population. The self-report nature of the interviews means they are prone to social desirability bias. For these reasons, the conclusions that can be made about the efficacy of the intervention are limited.

Future directions

The current study is in line with recommendations that new interventions should be planned, developed and piloted on a small-scale over a two-term period before larger-scale implementation across the entire setting (EEF, 2018). But this thesis has provided justification for future research to conduct a randomised controlled trial (RCT) to confirm the results of the current study and strengthen the evidence of the effectiveness of the TA training. The RCT would need to include a much larger sample, involve teachers in the training, provide opportunities for telephone contact with the research team between training sessions, and specifically target the TA-led intervention at children from low-income backgrounds who have entered school with language delay to address the weaknesses of this study.

An additional avenue for future work would be to combine the approach of this thesis and previous work by Williams et al. (2024) who trained school-based staff to deliver the parenting programme, so that parents could support their children's language development at home. One of the TAs in the current study suggested that using TAs in nursery to deliver training to parents would foster home-school links and provide wrap around support for children. Closing the attainment gap requires collaboration between various invested parties, including parents and schools (High et al., 2008; Williams et al., 2019). Strong home-school links can create school environments that meet each child's needs and maximise children's developmental outcomes, yet teachers admit they have little training on how to effectively work with parents to achieve this goal (LaRocque, Kleiman & Darling, 2011). Given that evidence suggests that if appropriate support is

provided universally to children who have entered school with language deficits, there is a high likelihood that they will catch up with their peers (Welsh Government, 2020), this combined intervention approach might be necessary. A similar approach was successful in pre-school settings (Whitehurst et al., 1994; Lonigan & Whitehurst, 1998).

Final reflections

As well as parents and early childhood education and care, schools play a role in children's school readiness (High et al., 2008; Williams et al., 2019). Therefore, entry to school provides another opportunity to deliver early childhood development interventions. Especially considering that the initial school year (two years in Wales) promotes continuity of play-based learning that occurs in early years settings to give children more time to adjust to the school environment, and develop their school readiness skills, before beginning formal instruction.

This was the first pilot trial of a brief, online DBS training for TAs supporting children aged 4-7-years-old. This thesis explored the collected data and found evidence for the positive effects of the training in terms of upskilling TAs and children's oral language development. This was achieved using a relatively brief training and within a context (i.e. primary school) that is under researched. However, the following changes need to be made to the training to improve the feasibility and efficacy of implementation: make the training longer to introduce the skills more gradually, allow TAs opportunity to practice with children and receive feedback, involve the teachers in the training.

More research is needed to confirm the findings of this pilot study and the value of the training that was developed for TAs. Particularly larger scale RCTs which would more definitively be able to attribute changes in child language outcomes to DBS intervention. The results of this study should be interpreted with caution considering the limitations outlined in this chapter, including study design, implementation fidelity, and response bias.

Planning and conducting this research and writing this thesis has been challenging but enlightening. I have further developed my research design and critical appraisal skills

and my understanding of the importance of bridging the gap between research and practice by consulting with the practitioners who will ultimately be using the proposed intervention. It is my hope that the feedback that my sample provided in this pilot study will go on to inform future trials.

My research has deepened my recognition of the importance of all adults surrounding all children getting it right on the child's behalf at every stage of the child's development, to ensure the best possible life trajectory. In the same way that the onus for school readiness shouldn't solely be on the child, it shouldn't solely be on parents, especially when social disadvantage can limit some parents' abilities to provide optimal conditions for child development; so, when children enter school with skill deficits schools need to have strategies in place to prepare children for subsequent years of schooling. Without this, we run the risk of some children being written off from day one. I have also learned a great deal about the plight of TAs, who often support the most vulnerable and challenging children. Therefore, it is of great importance to evaluate training for this undervalued subsection of the school workforce, in order to develop their natural abilities into effective teaching skills and enable them to achieve their goal of making a positive impact to the lives of children. Considering that children's school readiness has been declared a public health concern, it is imperative that schools are able to access cost effective, effective, and engaging professional development training to support their staff to meet the needs of the children they serve. Knowing that the training I have developed has changed the practice of a handful of TAs and may have, to some extent, helped developed the oral language skills of the children those TAs have supported makes the overall experience of this research very fulfilling.

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Appendices

Appendix A

Copy of Study Advertisement (English and Welsh versions)

<table>
<tr>
<td>

CANOLFAN YMYRRAETH CYNNAR AR SAIL TYSTIOLAETH
Adeilad Nantlle
Safle Normal
Prifysgol Bangor
Gwynedd. LL57 2PZ.
Ffôn: 01248 383 758

</td>
<td></td>
<td>

CENTRE FOR EVIDENCE BASED EARLY INTERVENTION
Nantlle Building
Normal Site
Bangor University
Gwynedd. LL57 2PZ.
Tel: 01248 383 758

</td>
</tr>
</table>

E-bôst/ E-mail: j.hutchings@bangor.ac.uk
Gweinyddu/ Administration: natalie.williams@bangor.ac.uk
Gwefan/Website:
https://www.bangor.ac.uk/psychology/cebei/
Twitter: https://twitter.com/ cebei_bangor

Books Together

(promoting language and socio-emotional development through shared reading)

We are exploring a proposal for schools to contribute to research and access free training and resources for school support staff

At the Centre for Evidence Based Early we have been researching the book sharing programme (Books Together) with parents of 3 – 5-year-olds. The programme encourages conversations with children and promotes children's language skills, one of the areas that schools have identified as needing support for school readiness following the COVID pandemic.

During the pandemic we adapted the programme from delivery by school staff to parents in person, to research a web-based delivery. We have had promising results from both the group-based programme delivered in schools and from the online programme. With classroom assistants trained to deliver the programme finding they gained additional skills.

We are now looking to develop and evaluate a one-day training for school-based support staff and are exploring whether there are sufficient schools that would be interested in accessing free training and resources for classroom support staff to make this a viable project.

If we have sufficient interest from schools, the training would be online and delivered over two half days and include all of the Book Sharing resources. We are seeking schools that would be interested in nominating one or more Foundation Phase classroom support staff to take part in a small trial. If there is sufficient interest, we would anticipate the trial being run over the summer term and would ask that the staff member is given time with one child to practice the skills.
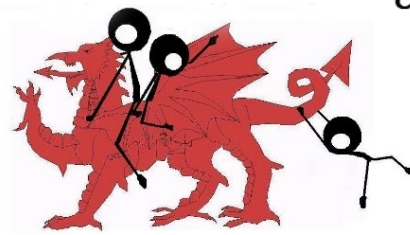
More information about the book sharing programme and our work in Wales is available here. If your school would like to express interest or learn more about this proposal, please contact Judy Hutchings at j.hutchings@bangor.ac.uk by 15th February.

Yours sincerely

[signature]

Professor Judy Hutchings

CANOLFAN YMYRRAETH CYNNAR AR SAIL TYSTIOLAETH
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CENTRE FOR EVIDENCE BASED EARLY INTERVENTION
Nantlle Building
Normal Site
Bangor University
Gwynedd. LL57 2PZ.
Tel: 01248 383 758

E-bôst/ E-mail: j.hutchings@bangor.ac.uk
Gweinyddu/ Administration: natalie.williams@bangor.ac.uk
Gwefan/Website:
https://www.bangor.ac.uk/psychology/cebei/
Twitter: https://twitter.com/ cebei_bangor

Llyfrau Gyda'n Gilydd

(hybu datblygiad iaith a sgiliau emosiynol a chymdeithasol drwy ddarllen ar y cyd)

Rydym ni'n ystyried cynnig i ysgolion gyfrannu at ymchwil a chael mynediad am ddim at hyfforddiant ac adnoddau ar gyfer cymhorthyddion dosbarth

Yn y Ganolfan Ymyrraeth Cynnar ar Sail Tystiolaeth, rydym wedi bod yn ymchwilio i'r rhaglen 'Llyfrau Gyda'n Gilydd' (Books Together) gyda rhieni plant 3 – 5 oed. Mae'r rhaglen yn annog sgyrsiau gyda phlant ac yn hybu eu sgiliau iaith- un o'r meysydd sydd wedi ei nodi fel un y gallai elwa o gymorth ychwanegol yn dilyn y pandemig COVID, ac sy'n bwysig er mwyn gwella parodrwydd plant ar gyfer yr ysgol.

Yn ystod y pandemig fe wnaethom addasu'r rhaglen o un oedd yn cael ei chyflwyno i rieni wyneb yn wyneb gan staff ysgol, i ddarpariaeth ar-lein. Gwelwyd canlyniadau addawol wrth ddanfon y rhaglen grŵp ac o'r rhaglen ar-lein, gyda'r cymhorthyddion a fynychodd yr hyfforddiant yn canfod eu bod wedi ennill sgiliau ychwanegol.

Rydym nawr yn bwriadu datblygu a gwerthuso hyfforddiant undydd ar gyfer cymhorthyddion dosbarth ac rydym yn archwilio os oes digon o ysgolion a fyddai â diddordeb derbyn yr hyfforddiant ac adnoddau am ddim, er mwyn gwneud hwn yn brosiect ymarferol.

Os bydd digon o ysgolion yn dangos diddordeb, cynhelir yr hyfforddiant ar-lein dros ddau hanner diwrnod, a darperir holl adnoddau rhaglen 'Llyfrau Gyda'n Gilydd' am ddim. Rydym yn chwilio am ysgolion a fyddai â diddordeb mewn enwebu un neu fwy o gymhorthyddion dosbarth Cyfnod Sylfaen i gymryd rhan mewn treial bach. 'Rydym ni'n rhagweld y cynhelir y treial dros dymor yr haf a gofynnwn i'r aelod o staff gael amser gydag un plentyn i ymarfer y sgiliau.

Mae rhagor o wybodaeth am raglen 'Llyfrau Gyda'n Gilydd' a'n gwaith yng Nghymru ar gael yma.

Os hoffai eich ysgol fynegi diddordeb neu ddysgu mwy am y cynnig hwn, cysylltwch â Judy Hutchings drwy e-bost ar j.hutchings@bangor.ac.uk erbyn 15fed o Chwefror.

Yr eiddoch yn gywir,

Judy Hutchings

Yr Athro Judy Hutchings

Appendix B
Copy of email to schools following ethical approval

Dialogic Book Sharing Training for TAs

Judy Hutchings (Staff)
To: Helen.vernon@denbighshire.gov.uk; Rebecca Lothian
Cc: Margiad Williams (Staff)

Tue 25/04/2023 14:32

Staff Note of Interest.docx
706 KB

Email for schools to send to …
1 MB

2 attachments (2 MB) Save all to OneDrive - Bangor University Download all

Dear █████

Thank you for your interest in our trial of the book sharing training for classroom support staff. We appreciate that it has taken us some time to get back to you since you expressed interest in this trial to give training in book sharing skills to school support staff but would be delighted if you are still interested in nominating any staff member/s.

I understand that our researcher Becky Lothian spoke with you recently and explained that as part of the evaluation we would like to film ten minutes of the staff member sharing a book with a child both before and after the training but for this we need both staff agreement and parental consent to the child being filmed. We would be grateful to have the name and contact details of any participating staff member as the training is fast approaching. I enclose the staff and parental consent forms for their child's participation that the school would need to obtain.

Please contact Rebecca if you have staff that you would like to attend

Sincerely

Judy

Dialogic Book Sharing Training for TAs

Annwyl █████

Diolch am eich diddordeb yn ein treial o'r hyfforddiant rhannu llyfrau ar gyfer staff cymorth dosbarth. Rydym yn gwerthfawrogi ei bod wedi cymryd peth amser ers i chi fynegi diddordeb i gael cymeradwyaeth foesegol ar gyfer y treial hwn ond gobeithio eich bod yn dal yn fodlon enwebu unrhyw aelod(au) o staff.

Rwy'n deall bod ein hymchwilydd Becky Lothian wedi siarad â chi yn ddiweddar ac wedi esbonio yr hoffem, fel rhan o'r gwerthusiad, ffilmio deng munud o'r aelod o staff yn rhannu llyfr â phlentyn cyn ac ar ôl yr hyfforddiant ond ar gyfer hyn mae angen cytundeb y ddau aelod o staff. a chaniatâd rhieni i'r plentyn gael ei ffilmio. Byddem yn ddiolchgar i gael enw a manylion cyswllt unrhyw aelod o staff sy'n cymryd rhan gan fod yr hyfforddiant yn prysur agosáu. Amgaeaf y ffurflenni caniatâd staff a rhieni ar gyfer cyfranogiad eu plentyn y byddai angen i'r ysgol eu cael.

Yn gywir

Judy

Professor Judy Hutchings
Co-Director, Centre for Evidence Based Early Intervention,
School of Psychology,
College of Health and Behavioural Sciences,
Nantlle Building,

Appendix C
Staff Note of Interest Form

<u>Evaluating a brief, online book sharing training programme for teaching support staff</u>

STAFF NOTE OF INTEREST

If you have discussed the research project with your school's headteacher and are willing to learn more about this exciting research opportunity, please complete and sign this form and hand it to back to the headteacher.

Staff member's details			
First Name:		Surname:	
School Address:			
Postcode:			
Telephone (Mobile):			
First Language:			
Best Time to Contact:			

I consent for my school to forward my contact details to the research team at Bangor University. I understand that I will be contacted and provided with additional information about the study and the possibility of participating in the project at which time I will have the opportunity to decide whether or not to participate.

Signature:	Date:

<u>Gwerthuso rhaglen hyfforddi ar-lein ar rannu llyfrau ar gyfer staff cymorth addysgu</u>

NODYN O DDIDDORDEB I RIENI

Os ydych wedi trafod y prosiect ymchwil gyda phennaeth eich ysgol ac yn barod i ddysgu mwy am y cyfle ymchwil cyffrous hwn, cwblhewch a llofnodwch y ffurflen hon a'i dychwelyd i'r pennaeth.

Manylion y rhiant			
Enw cyntaf:		Cyfenw:	
Cyfeiriad yr ysgol:			
Côd post:			
Ffôn (Symudol):			
Iaith Cyntaf:			
Amser Gorau i Gysylltu:			

Rwyf yn caniatau i ysgol anfon fy manylion cyswllt ymlaen i'r tîm ymchwil ym Mhrifysgol Bangor. Rwyf yn deall y bydd rhywun yn cysylltu â mi ag yn rhoi gwybodaeth ychwanegol am yr astudiaeth a'r posibilrwydd o gymryd rhan yn y prosiect a byddaf yn cael cyfle i benderfynu os wyf am gymryd rhan neu beidio.

Llofnod:	Dyddiad:

Appendix D

Copy of Email to Schools

Email for schools to send to parents

...
Wed 17/04/2024 19:48

Parent Information Sheet (Bili...
716 KB

Hello,

Our school have volunteered to participate in a research study which aims to look at whether a book sharing training for our teaching assistants will further help them to improve children's language development.

As part of the research, our teaching assistants will be filmed sharing a book with a child aged 3-5 years in order for the researchers to determine whether the training had led to changes in the teaching assistants' behaviour. We are writing to ask whether you would be willing for your child to take part in the research. Please see the information sheet attached which explains what your child's participation will involve.

Once you have read this please complete the consent form by following the link below: https://forms.office.com/Pages/ResponsePage.aspx?id=VUxHxiOpKk2b1OzjcUjbsmgWts1HLuJCr6b5XtjM86ZUME5TN1UyUDgzNU1EUUNXVDRIS0s4TUs5Ri4u

To help you fill in the above form the name of the teaching support staff member that will be accompanying your child is: [enter name].

If you have any questions, please don't hesitate to get in touch with the school.

Kind regards,
[Enter school/teacher name]

Email for schools to send to parents.eml   ↓ Download   ☁ Save to OneDrive

Helo,

Mae ein hysgol wedi gwirfoddoli i gymryd rhan mewn astudiaeth ymchwil sy'n ceisio edrych a
fydd hyfforddiant rhannu llyfrau ar gyfer ein cynorthwywyr addysgu yn eu helpu ymhellach i wella datblygiad iaith plant.

Fel rhan o'r ymchwil, bydd ein cynorthwywyr addysgu yn cael eu ffilmio yn rhannu llyfr gyda phlentyn 3-5 oed er
mwyn i'r ymchwilwyr benderfynu a oedd yr hyfforddiant wedi arwain at newidiadau yn ymddygiad y cynorthwywyr addysgu.
Rydym yn ysgrifennu i ofyn a fyddech yn fodlon i'ch plentyn gymryd rhan yn yr ymchwil. Gweler y
daflen wybodaeth atodedig sy'n egluro beth fydd cyfranogiad eich plentyn yn ei olygu.

Unwaith y byddwch wedi darllen hwn cwblhewch y ffurflen ganiatâd drwy ddilyn y ddolen isod:
https://forms.office.com/Pages/ResponsePage.aspx?id=VUxHxiOpKk2b1OzjcUjbsmgWts1HLuJCr6b5XtjM86ZUME5TN1UyUDgzNU1EUUNXVDRIS04u4

I'ch helpu i lenwi'r ffurflen uchod, enw'r aelod o staff cymorth addysgu a fydd gyda'ch plentyn yw: [rhowch yr enw].

Os oes gennych unrhyw gwestiynau, mae croeso i chi gysylltu â'r ysgol.

Cofion cynnes,
[Rhowch enw'r ysgol/athrawes]

Rebecca Lothian	Rebecca Lothian	
	KESS Master's by Research Candidate	
	Centre for Evidence Based Early Intervention	
E-bost: rbl22qcx@bangor.ac.uk	Email: rbl22qcx@bangor.ac.uk	PRIFYSGOL BANGOR UNIVERSITY
Ffôn: 01248382397	Phone: 01248382397	

↩ Reply   ↩ Reply all   ➔ Forward

Appendix E

Parent Information Sheet

Evaluating a brief, online book sharing training programme for teaching support staff

Your child is being invited to take part in a research study. Before you decide to allow them to participate, it is important for you to understand why the research is being done and what it will involve.

A member of the research team will go through the information with you and answer any questions you may have.

Please take time to read the following information carefully and discuss it with your family and the school if you wish. If anything is unclear, or you would like more information, you are welcome to ask us any questions.

What is the purpose of this study?
The purpose of this study is to see whether a brief (two half days) book sharing training programme for teaching support staff is helpful in their work with children. The programme will be delivered online and is designed for teaching assistants who support children aged 3-7 years. It aims to give them new skills and improve their ability to talk with children and encourage their interest in books using picture books. The programme encourages conversations about the picture content, relating it to children's own experience, and encouraging children's curiosity and thinking skills. In this study we are interested in knowing whether teaching assistants like the training programme, whether there are any changes in their skills and if it encourages children to talk more with them.

Why has my child been asked to take part?
Your child's school has agreed to take part in this study. Your child has been invited to take part because they are aged between 3 and 7 years. The teaching assistant will receive the online book sharing training and we would appreciate your child's help in finding out whether it is useful.

What does the study involve for my child?
In order to find out whether the book-sharing training is acceptable and beneficial we are conducting a pilot study in which we will be delivering the training to teaching assistants from participating schools in April/May 2023.

A researcher will visit your child and their teaching assistant at the school before the training to complete an assessment of language with your child and to observe how the teaching assistant and your child normally interact together during a short, ten-minute book-sharing session. This observation will be video recorded so that it can be coded at a later time. The visit should last no more than one hour.

After the teaching assistant has completed the training, we are asking them to try out the ideas for two weeks and they will be asked to complete two more observations with your child. One will take place within two weeks of the training being completed and the other will occur one month later. At the one-month-follow-up observation the researcher will repeat the language assessment with your child.

You will be told by the school which day and at what time the observations of your child will take place.

Are there any benefits or risks in taking part?
The benefits of taking part will be the opportunity to have your child supported by a teaching assistant that has learned new skills that could potentially better help support your child and other children. It could also strengthen the teaching assistant's relationship with your child. There are no obvious risks in taking part in this study.

What will happen to my child's data?
All of the information collected by the researcher will remain strictly confidential and will be kept at the Centre for Evidence Based Early Intervention, Bangor University in a locked cabinet. The videos from the observations will be kept as password protected files on the researcher's laptop and on the University's Microsoft One Drive account – only the research team will have access to them.

Our procedures for handling, processing, storing, and destroying data are compliant with the Bangor University policies and procedures.

When the results of this study are reported, information provided by school staff and children taking part will be reported as a group and not as individuals. At the end of the project, we will send a letter to all of the schools and parents of the children who participated outlining the results of the study. We will ensure confidentiality unless we have cause for concern regarding the child's safety. If any child protection issues arise, the researchers will inform the primary supervisor who will pass on the information to the relevant service providers.

What if I don't want my child to take part?
It is up to you whether or not you decide to allow your child to take part in this research project. If you do decide that your child can take part, we will ask you to sign a consent form. You will be given a copy of the information sheet and the signed consent form to keep for your records. You are free to withdraw your child from the research at any time and you do not need to give a reason. This will not affect your child's access to other services.

Who do I contact about the study?
If you would like any further information about this study, you could contact:

Name: Rebecca Lothian (Postgraduate Student)
Email: rbl22qcx@bangor.ac.uk; Tel: 01248382397

Who do I contact with any concerns about the study?
If you have a concern about any aspect of this study, you should ask to speak to Dr Margiad Williams or Professor Judy Hutchings who will do their best to answer your questions (tel: 01248 383758).

If you are unhappy with the conduct of this research and wish to complain formally, you should contact:

Name: Mr Huw Ellis (School Manager, School of Psychology, Bangor University)
Email: huw.ellis@bangor.ac.uk; Tel: 01248 383229

Appendix F

Parent Consent Form

Participant Identification Number for this trial:

PARENT CONSENT FORM

Title of Project: <u>Evaluating a brief, online book sharing training programme for teaching assistants</u>

Name of Researcher: Rebecca Lothian   Please initial box

1. I confirm that I have read the information sheet dated.................... (version............) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my child's participation is voluntary and that I am free to withdraw them at any time without giving any reason, without my child's medical care or legal rights being affected.

3. I understand that the researcher will video record three separate 10-minute observations (at different time points) of my child and a teaching assistant sharing a book during school visits.

4. I understand that all information collected about my child will be kept confidential unless any matter(s) regarding child protection issues arise.

5. I understand that any public dissemination of outcomes of this research, or any quotations used will not include data that is identifiable to my child.

6. I agree to allow my child to take part in the above study.

_____   _____   _____

Name of Participant   Date   Signature

Appendix G
Dialogic Book Sharing Training for Teaching Support Staff PowerPoint Presentations

Appendix H

Set of Books Provided to Teaching Assistants

Appendix I

Set of Summary Sheets Provided to Teaching Assistants
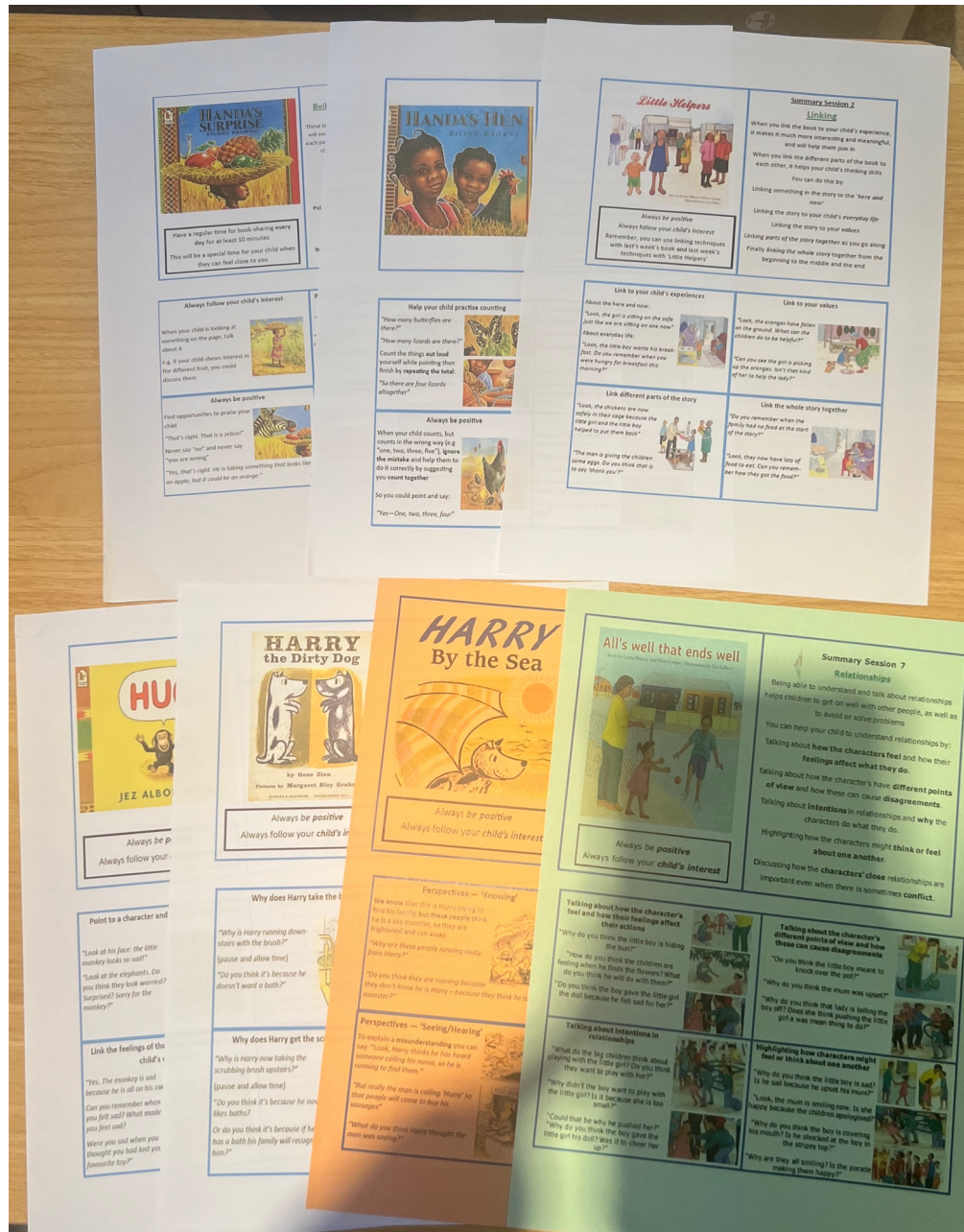
Appendix J

Demographics Questionnaire

Participant ID: ....   Date: ....
<u>**Teaching Assistant Demographics Questionnaire**</u>

Please provide the following details about yourself:

1. Background

1a) Age ………..   1b) Gender ……………………………………

1c) What is your preferred language for speaking?

Welsh   ☐   English ☐   other   ☐   Please state ………………………….

2. Employment

2a) Voluntary ☐   Paid   ☐

2b) Full-time ☐   Part-time   ☐

2c) Classroom TA ☐   1:1 TA   ☐

3. Qualifications

3a) What is the highest level of qualification you have obtained?

None ☐   GCSE's ☐   AS Level ☐   A Level ☐   Undergraduate degree ☐
Master's degree   ☐

4. Experience
How many years of experience working with children do you have?
…………………………………

Please provide the following details about the child you will be working with during observations:

5. Child's Background
5a) Child age ………..   5b) Child gender …………………..

5c) What is the child's preferred language for speaking?
Welsh   ☐   English ☐   other   ☐   Please state ………………………….

5d) How familiar are you with this particular child:

Very familiar ☐   Somewhat familiar ☐   Not at all familiar   ☐

5e) If familiar, how long have you worked with this particular child?
……………………………

Thank you very much for completing this questionnaire

Appendix K

Strengths and Difficulties Questionnaire

Strengths and Difficulties Questionnaire   P 4-17

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of the child's behaviour over the last six months.

Child's Name ....   Male/Female

Date of Birth..

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐
Often has temper tantrums or hot tempers	☐	☐	☐
Rather solitary, tends to play alone	☐	☐	☐
Generally obedient, usually does what adults request	☐	☐	☐
Many worries, often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, down-hearted or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets on better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Sees tasks through to the end, good attention span	☐	☐	☐

Do you have any other comments or concerns?

Please turn over - there are a few more questions on the other side

Overall, do you think that your child has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

	No	Yes- minor difficulties	Yes- definite difficulties	Yes- severe difficulties
	☐	☐	☐	☐

If you have answered "Yes", please answer the following questions about these difficulties:

• How long have these difficulties been present?

	Less than a month	1-5 months	6-12 months	Over a year
	☐	☐	☐	☐

• Do the difficulties upset or distress your child?

	Not at all	Only a little	Quite a lot	A great deal
	☐	☐	☐	☐

• Do the difficulties interfere with your child's everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal
HOME LIFE	☐	☐	☐	☐
FRIENDSHIPS	☐	☐	☐	☐
CLASSROOM LEARNING	☐	☐	☐	☐
LEISURE ACTIVITIES	☐	☐	☐	☐

• Do the difficulties put a burden on you or the family as a whole?

	Not at all	Only a little	Quite a lot	A great deal
	☐	☐	☐	☐

Signature ....   Date ....

Mother/Father/Other (please specify:)

Thank you very much for your help

Appendix L
Teaching Assistant Sense of Competence Scale

Participant ID:_____
Date:_____

Teaching Assistant Sense of Competence

This is a questionnaire about your attitudes and feelings that relate to working as a teaching assistant.

Please circle the answer that most closely resembles how you feel.

There are no right or wrong answers.

	Strongly agree	Agree	Mildly agree	Mildly Disagree	Disagree	Strongly Disagree
The problems of taking care of a child are easy to solve once you know how your actions affect the child – an understanding I have acquired.	6	5	4	3	2	1
Even though being a teaching assistant can be rewarding, I often feel frustrated.	6	5	4	3	2	1
I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	6	5	4	3	2	1
Being a teaching assistant is manageable, and any problems are easily solved.	6	5	4	3	2	1
Working with children sometimes makes me tense and anxious.	6	5	4	3	2	1
I would make a fine model for new teaching assistants to follow in-order to learn what they need to know to be good teaching assistants.	6	5	4	3	2	1
I go to bed the same way that I wake up in the mornings: feeling like I have not achieved very much.	6	5	4	3	2	1
I feel that my colleagues were better	6	5	4	3	2	1

prepared to be good teaching assistants than I am.

| A difficult problem in being a teaching assistant is not knowing whether you're doing a good job or a bad one. | 6 | 5 | 4 | 3 | 2 | 1 |

Please turn over to complete the questions on the other side

	Strongly agree	Agree	Mildly agree	Mildly disagree	Disagree	Strongly disagree
I meet my own personal expectations for expertise in caring for children.	6	5	4	3	2	1
If anyone can find the answer to what is troubling a child, I am the one.	6	5	4	3	2	1
Sometimes I feel like I'm not getting anything done.	6	5	4	3	2	1
Considering how long I've been a teaching assistant, I feel thoroughly familiar with this role.	6	5	4	3	2	1
My talents and interests are in other areas – not being a teaching assistant.	6	5	4	3	2	1
If being a teaching assistant were only more interesting, I would be better	6	5	4	3	2	1

motivated to do a better job.						
I honestly believe I have all the skills necessary to be a good teaching assistant.	6	5	4	3	2	1
Being good at my job as a teaching assistant is a reward in-itself.	6	5	4	3	2	1

Appendix J

Appendix M

Screenshots of the Early Years Toolbox
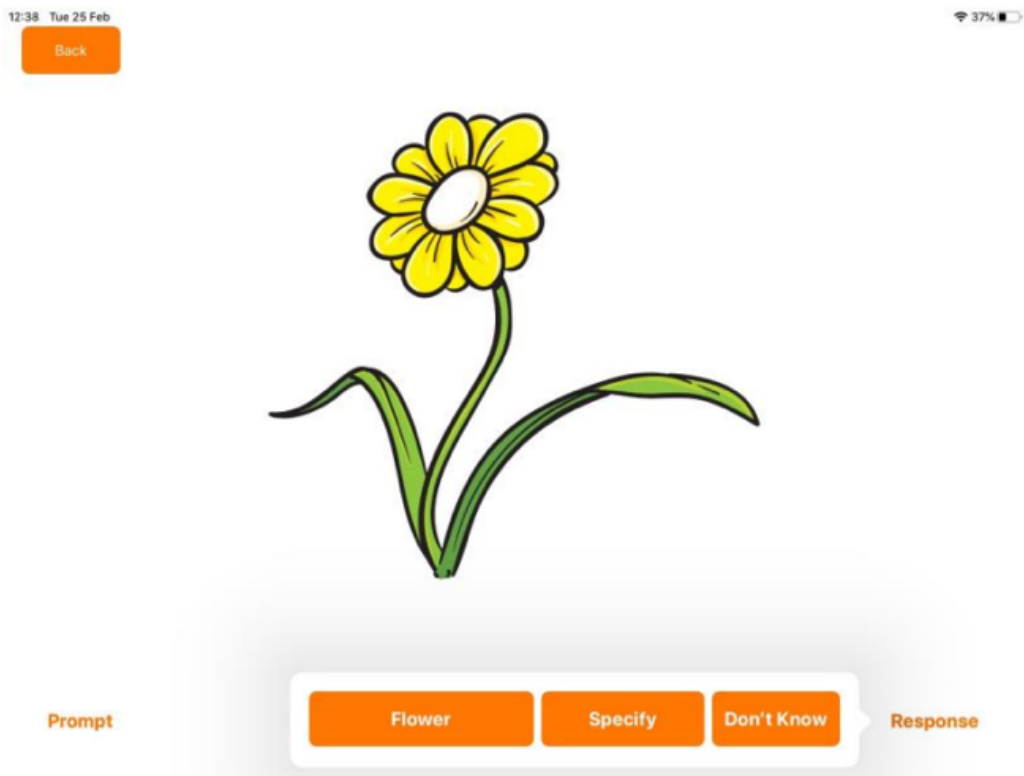
Appendix N
Dyadic Parent-Child Interaction Coding System coding sheet

T1 / T2   PID: Coder: Obs / Reliability Check

1st 5 mins

Praise		Verbal Labelling	
Encouragement		Verbal Questioning	
Reflections		Emotion Coaching	
Questions		Comments:	
Critical Statement			
No opportunity			

T1 / T2   PID: Coder: Obs / Reliability Check

2nd 5 mins

Praise		Verbal Labelling	
Encouragement		Verbal Questioning	
Reflections		Emotion Coaching	
Questions		Comments:	
Critical Statement			
No opportunity			

Appendix O
Except of observed book-sharing interaction transcription

TA: Have you read this book?

C: No.

O: OK you can start.

TA: OK, OK, so the name of this book is Pig Gets stuck. Look at the picture, what do you think is gonna happen in the book?

C: (Points) He gets stuck. [M]

TA: Who is it?

C: Pig. [S]

TA: Pig. Can you see anything else on it?

C: Chicken. Chicken. Girl. [M]

TA: Do you remember the girl's name from the last story? Po…

C: Poppy. [S]

TA: Poppy. Well done. Shall we have a look what happens? if you're hot.

C: It's a horse called called Poppy at horse riding. [M]

TA: You've got a horse called Poppy?

C: Yeah at horse riding. [M]

TA: What can you see in this page?

C: Pig. There's the duck. A little duck in it. [M]

TA: A little duck.

C: And he's got stuck in a bucket too. [M]

TA: In a bucket.

C: And…

TA: Who's that?

C: Bird. [S]

TA: A bird. Shall we see what else is happening? Who are these? (TA points)

C: Chickens. [S]

TA: Can you count the chickens?

C: One two tree four dive [M]

TA: Five chickens.

C: Oh my I can see the duck. [M]

TA: Ohh. The little duck.

C: Oh yeah (points) there. [M]

TA: And another one. What else can they say?

C: (Points at each) 1, 2, 3. [M]

TA: Three?

C: Humans. [S]

TA: Humans. Three humans.

C: A dog and cat. [M]

TA: A cat and a dog.

C: (Points) Aww I wish that was on there. [M]

TA: Ohh. The bird is on there, isn't it? (Child points) What colour is the tractor?

C: Uh, red. [S]

TA: Is there anything else red on this picture?

C: No. [S]

TA: No?

C: (Child points) But that is. [M]

TA: The clothes?

C: (Pointing at different things) And the wellies are and that is [M]

TA: Yeah.

C: (Pointing at different things) And the bottom of the chicken, that is and that is and that is and that is [M]

TA: The part of the chicken? Yeah.

C: Yep. [S]

TA: So her name is Mrs. What do we think her name is?

C: Mrs Gemma. [M]

TA: Mrs Gemma?

C: Mrs Gemma yeah. [M]

TA: Yeah? (TA points) And who was this again?

C: Poppy. [S]

TA: Yeah. (TA points)

C: Georgie. [S]

TA: Georgie?

C: Yeah. [S]

TA: Yeah? (TA pointing at each) So Mrs Gemma, Georgie, and Poppy.

C: Yep. [S]

TA: OK Should we see what else they do on the farm then?

C: Ohhh baby pigs. [M]

TA: How many?

C: 1, 2, 3, 4, 5, 6. [M]

TA: 6. How many big pigs are there?

C: (Points) One. [S]

TA: One and how many little pigs?

C: 1, 2, 3, 4, 5. [M]

TA: Five.

C: It's a baby one. [M]

TA: A baby one. What do you think of the baby pig's called?

C: Iyenna. [S]

TA: Have you got any pigs on your farm?

C: Nope. [S]

TA: No?

C: inaudible have cows back. [M]

TA: You've got cows?

C: No only got sheep [S]

TA: Only sheep.

C: And I got chickens. [M]

TA: Chickens?

C: Oh I wanted that toy (Child not looking at the book, turned around looking at bookcase behind them) [M]

TA: Inaudible. Who else can you see hiding on this page?

C: Duck. [S]

TA: The who?

C: The duck (child points) [S]

TA: The Duck. What colour is he?

C: Lellow. [S]

TA: Should we see if he's on the next page?

C: Yeah. [S]

TA: Yeah.

C: Ohh (Child points) he's down there by the pig's bottom. [M]

TA: What's Mrs Gemma doing?

C: Feedin' the pigs. [M]

TA: Feeding the pigs?

C: Oh (child points) one's tryna escape. [M]

TA: Oh. Oh, what she feeding them?

C: Pig food. [M]

TA: Pig food. How many little pigs are there?

C: (Child points at each little pigs and counts) One, two, three, four (Child points at pig on the next page) and one… (TA cuts child off) [M]

TA: And how many were on the other page? Do you remember?

C: One, two, three, four, five. [M] Five. [S]

TA: Five? Was there five on the last page and four on this one?

C: Ohh, maybe that one's run away. [M]

TA: Maybe he's running away? Where's he going?

C: He's getting stuck. [M]

TA: He's got stuck?

C: Yep. [S]

TA: Yeah?

C: (Child points) And the duck [M]

TA: Where's… (Child cuts TA off)

C: Inaudible response

TA: Where do you think he's trying to go?

C: (Child points) Ohh it's a bee. [M]

TA: A bee. (TA points) And what's this?

C: Ohh, wait, (child points) that is in all the pages. [M] (Child points) That's in the page and (child points) that's in the page. [M]

TA: Is it? (TA points) What's this? (Child goes to turn page) Look.

C: Butterfly. [S]

TA: We've been doing about butterflies haven't we? And this (TA points). *Inaudible* anywhere?

C: (Child turns page) Ohhh, can I count how much? [M]

TA: Yeah, count.

C: One, two, three, four. [M] Why's a pig there? [M]

5:00

TA: The pig is with the what?

C: One, two, look (Child points) there's a pig there again. [M]

TA: (TA points) What are these?

C: One, two, three, four sheep. [M]

TA: (TA points) How many cows is there?

C: One, two, three. [M]

TA: (TA points) And what's this?

C: A horse. [S]

TA: (TA points) And who are these?

C: Sheep. [S]

TA: How many did you say there was?

C: One, two, three. [M]

TA: How many have you got?

C: Lots. [S]

TA: Loads? More than three?

C: (Child nods) Yep. [S]

TA: Yeah? Do they eat… (Child cuts TA off)

C: There's a man that lives next to our house and his *inaudible*. And then my dad's *inaudible* and then he gives his sheep to us. [M]

TA: Oh he gave you sheep?

C: Yeah. [S]

TA: Oh.

C: But but one little black hen that's his. [M] But he puts his sheep in our fields so we can look after them. [M]

TA: Oh, so you can look after his sheep? That's nice, isn't it?

C: Well, (child points) how many of these? [M]

TA: (Ta points) What are these? What animal is this?

C: Don't know. [M] Piggy can get in and eat all the chickens. [M]

TA: The pig's gonna get in and eat all the chickens?

C: Oh * inaudible*

TA: How many of these? What animal is it?

C: There's more on that page. [M]

TA: We haven't counted these ones. How many is there?

C: One, two, three, four, five, six, seven, eight. [M]

TA: That's right. (TA points) And what animal is it?

C: Don't know what. [M]

TA: What do you think it looks like?

C: Pigeon. [S]

TA: A pigeon? You think it looks like a pigeon?

C: Yeah. [S]

TA: (TA points) And you know what these are?

C: Chickens. [S]

TA: Chickens. How many chickens is there?

C: One, two, three, four, five. [M] I only have… (TA cuts child off)

TA: (TA points) Why's she hiding over there?

C: I only I only have one, two, three, four. [M]

TA: You've got four chickens?

C: Yeah. [S]

TA: Yeah? Should we name these chickens?

C: (Child points) Georgie. [S]

TA: Jodie?

C: George. [S]

TA: Oh yeah.

C: (Child points) Gordon Ramsey. [M]

TA: Goldie. Yeah, that's a good name.

C: No, Gordon Ramsey? [M]

TA: Gordon Ramsay?

C: Yeah. [S]

TA: Ohh.

C: (Child points) And that one's called Cheeky. [M]

TA: Cheeky?

C: Yeah. [S]

TA: Yeah.

C: And that one's called *inaudible*. [M]

TA: Oh. (TA points) Why's this one hiding?

C: *Inaudible response* (TA points at something else and then child whispers in TA's ear).

TA: *Whispers something inaudible back*

C: Yeah. [S]

TA: Oh, OK. Shall we see what's happening here?

C: A pig eating all the chicken food. [M]

TA: Ohh no.

C: Naughty pig. [M]

TA: How's he got in there?

C: By pulling himself through there. [M]

TA: Through the fence?

C: Yep. [S]

TA: Ohh no. What do you think he was thinking?

C: Hmm maybe I'll eat the chicken food instead of mine. [M] (TA laughs) Ohh I can see duck. [M]

TA: Another duck?

C: Another one (Child points). [M]

TA: Well done. Where's he going to go next? Who do you think he's going to see next? Are you peepin'?

C: Yep. [S] The chickens again. [M]

TA: The chickens again? Who's come to see him? (TA points) Who's this? Do you remember?

C: Bingo. [S]

TA: Bingo?

C: Yep. [S]

TA: Bingo the (TA points)

C: Dog. [S]

TA: Dog. And who else is watching?

C: There's a bird and a chick. [M]

TA: How many hens is there now?

C: One, two, three. [M]

TA: Three? (TA points) And what's happened?

C: He ate all the food. [M]

TA: He ate all the food.

C: From the chickens. [M]

TA: Ohh no.

C: And then they pushed and then… (TA cuts child off) [M]

TA: Where's he going now?

C: They pecked his bum. [M]

TA: They pecked him?

C: Yeah. [S]

TA: (TA points) Where's he going?

C: (Child whispers to TA) They pecked his bottom. [M]

TA: Oh. (TA points) Where's he going now?

C: Out. [S] I can see a duck peekin at them. [M]

TA: (TA points) What do you think the pig can see through the fence?

C: Nothing. [S]

TA: Nothing?

C: *Inaudible response*

TA: You can't see anything?

C: I can't see through the gate. [M]

TA: OK. So all the food's gone. Do you think the chickens are full?

C: No. [S]

TA: No. Why not?

C: Because he ate all the food. [M]

TA: Oh the pig ate all the food. Yes.

C: They pushin' the pig out. [M]

TA: They pushin'… (Child cuts TA off)

C: And with the little boy *inaudible* the pig. [M]

TA: They tryna push the pig out?

C: Or take the pig out. [M]

TA: Oh. How's she? Does she look sad?

C: No she laffin' like hahaha. [M]

TA: She's laughing? Who's she laughing at? (Child points) Who is it?

C: Pig. [S]

TA: The pig. (Child turns the page) Ohh, what's going on in this picture?

C: They pulled the pig out and *inaudible* being mean to the pig. [M]

TA: Ohh. I Do you think they'll be mean to the pig?

C: Yeah. [S]

TA: Ohh. Do you think I don't think the pig knew what he was doing, did he?

C: Nope. [S] *inaudible*

TA: Ohh (TA points) how do they look here?

C: They look… (TA cuts child off)

TA: Are they all (Child cuts TA off)

C: Ohh the little boy like can I hold it? [M]

-END-

Appendix P
End of training evaluation questionnaire

Participant ID: _____.

End of Training Evaluation Questionnaire

Please be as honest as possible when answering these questions. We would greatly appreciate your feedback to further develop similar training resources in the future.

1. Did you complete both days of the training? Yes/No

2. I found the training beneficial

   Strongly disagree   *Disagree*   *Neutral*   *Agree*   *Strongly agree*

3. The examples shown in the video clips were useful

   Strongly disagree   *Disagree*   *Neutral*   *Agree*   *Strongly agree*

4. The practice sessions were useful

   Strongly disagree   *Disagree*   *Neutral*   *Agree*   *Strongly agree*

5. The discussions after practice sessions were useful

   Strongly disagree   *Disagree*   *Neutral*   *Agree*   *Strongly agree*

6. The summary sheets are useful

   Strongly disagree   *Disagree*   *Neutral*   *Agree*   *Strongly agree*

7. It would be useful to have a Welsh language version of the training

   Strongly disagree   *Disagree*   *Neutral*   *Agree*   *Strongly agree*

Please turn over – there are a few more questions on the other side

8. What was the most beneficial element of the book-sharing training for you?
   _____
   _____
   _____

9. Did you experience any challenges during the book-sharing training?
   _____
   _____
   _____

10. How could the training be improved?
   _____
   _____
   _____

11. Do you have any further comments or questions?

_____
_____
_____

Appendix Q
Interview schedule

Interview Schedule

Training Evaluation Interview Schedule (one-month post-training)

1. Can you tell me about your experience of any training you have had for this or a similar previous role as a TA?

2. How did you find the Book-Sharing training?

   Prompt 1: Do you think the skills were explained in enough detail? And were they relevant to your level of experience?

   Prompt 2: What did you think about the length of the training?

   Prompt 3: How did you find the process of completing the training online?

3. Tell me about your experiences of using the specific skills and the specific books in the classroom?

List of skills:	List of books:
Building and enriching language	Handa's Surprise
Making links	Little Helpers
Counting and Comparisons	Handa's Hen
Talking about Feelings	Hug
Talking about Intentions	Harry the Dirty Dog
Talking about Perspectives	Harry By the Sea
Talking about Relationships	All's Well that Ends Well

   Prompt 1: How often have you practiced the book-sharing techniques in the classroom since the training has finished (Daily, weekly, sporadically)? And with how many children?

   Prompt 2: Can you think of any specific ways you've approached the child to get them to take part?

   Prompt 3: Were there any skills you found yourself using more than others? If so, why?

   Prompt 4: Were there any books you found yourself using more than others? If so, why?

4. Have there been any benefits of the training for yourself? If so, what?

5. Have there been any benefits of the training for the child you've been working with? If so, what? Have you found yourself using the skills with any other children in your class? If so, how did that go?

6. Is there anything that has made it difficult for you to use the training - Challenges for delivering – time, location, child behaviour

7. Are there any aspects of teaching children language that you feel the training does not address?

8. Do you think it is feasible to implement book-sharing in the classroom and will you be continuing to use the skills moving forward?

Prompt 1: If you were creating a plan for what a TA would need to make it easier to implement this in a classroom what would you suggest?

9. Do you have any further comments, suggestions for improving the training or questions?

Appendix R

Copy of Ethical Approval Email

Ethics Application 2023-17329 Evaluating a brief online book sharing   training for teaching support staff Submited for Review

E   ethics@bangor.ac.uk

To: Rebecca Lothian

Tue 21/02/2023 15:30

Dear Rebecca,

"2023-17329 Evaluating a brief online book sharing training for teaching support staff" successfully submitted for review.

You can check the status of this request by logging on to http://apps.bangor.ac.uk/ethics/

IMPORTANT - Access to the Online Ethics System is now only available to users with a Bangor University username using the University's remote working provision Desktop Anywhere. (https://www.bangor.ac.uk/itservices/desktopanywhere/)

If you do not have a Bangor University username please contact c.pollock@bangor.ac.uk for assistance.

Regards

    Psychology Ethics Administrator

    Ethics Administrator ()

--
Mae croeso i chi gysylltu gyda'r Brifysgol yn Gymraeg neu Saesneg. Ni fydd gohebu yn Gymraeg yn arwain at oedi.
You are welcome to contact the University in Welsh or English. Corresponding in Welsh will not

Appendix S
Participant information sheet for teaching assistants
SCHOOL STAFF INFORMATION SHEET

<u>**Evaluating a brief, online book sharing training programme for teaching assistants**</u>

Your school is taking part in a study that involves training classroom assistants in book sharing skills and you are being invited to take part in the study. Before you decide it is important for you to understand why the research is being done and what it will involve.

A member of the research team will go through the information with you and answer any questions you may have.

Please take time to read the following information carefully and discuss it with the school if you wish. If anything is unclear, or if you would like more information, you are welcome to ask us any questions.

What is the purpose of this study?
The purpose of this study is to evaluate a brief (two half days) book sharing training programme. The programme will be delivered online and is designed for teaching assistants who support children aged 3-7 years. It aims to give staff new skills and improve their ability to have stimulating and rich interactions with children using a picture book. Rather than reading to a passive listener, supportive book-sharing involves engaging the child actively in conversation about the picture content, relating it to their own experience, and encouraging the child's curiosity and thinking skills. In this study we want to learn whether teaching assistants like the training programme, and whether there are any changes in staff competence and in child language skills.

Why have I been asked to take part?
You have been invited to take part because you currently work with children aged 3-7 years and your school would like you to attend the online book-sharing training.

What does the study involve?
A researcher will visit you in school before you have received the training. She will ask you to complete some questionnaires about yourself and your pupil. She will also complete an assessment of the child's language and observe how you and the pupil normally interact together during a short book-sharing session. This observation will be video recorded so that it can be coded at a later time. The visits should last no more than one hour. You will then receive the training, which will take place online and consist of two half day sessions – lasting approximately 3 hours each. After completing the training, you will be asked to practice using the skills in your work and complete two more observations. One will take place within two weeks of completing the training and the other will occur one month later. At the first follow-up you will also be asked to complete a training evaluation questionnaire. At the one-month-follow-up observation you will also be asked to complete an interview to gain feedback on your experience of the training and implementing the skills. The interview will be audio recorded for later transcribing. The researcher will also repeat the assessment of language with your pupil. All names will be anonymised. The interview should last no more than 30 minutes.

Are there any benefits or risks in taking part?
The benefits of taking part will be the opportunity to gain skills specific to working with children aged 3-7 years and the opportunity for you to give feedback on your experiences of receiving this training. There are no obvious risks in taking part in this study. If you agree to take part in the study, you will be asked to take part in the three ten minute observations and an interview which

may cause some inconvenience. However, a researcher will only visit with your permission and at a time that is convenient for you.

What will happen to my data?
All the information that is collected by the researcher will remain strictly confidential and will be kept at the Centre for Evidence Based Early Intervention, Bangor University in a locked cabinet. The videos from the observations will be kept as password protected files on the researcher's laptop and on the University's Microsoft One Drive account – only the research team will have access to them.

Our procedures for handling, processing, storing, and destroying data are compliant with the Bangor University policies and procedures.

When the results of this study are reported, information provided by school staff and children taking part will be reported as a group and not as individuals. At the end of the project, we will send a letter to all the schools and parents of the children who participated outlining the overall results of the study. We will ensure confidentiality unless we have cause for concern regarding the child's safety. If any child protection issues arise, the researchers will inform the primary supervisor who will pass on the information to the relevant service providers.

What if I don't want to take part?
It is up to you whether or not you decide to take part in this research project. We will explain the study and go through this information sheet with you. If you do decide to take part, we will then ask you to sign a consent form. You will be given a copy of the information sheet and the signed consent form to keep for your records. You are free to withdraw from the research at any time and you do not need to give a reason. This will not affect your job or access to other services.

Who do I contact about the study?
If you would like any further information about this study, you could contact:

Name: Rebecca Lothian (Postgraduate Student)
Email: rbl22qcx@bangor.ac.uk; Tel: 01248382397

Who do I contact with any concerns about the study?
If you have a concern about any aspect of this study, you should ask to speak to Dr Margiad Williams or Professor Judy Hutchings who will do their best to answer your questions (tel: 01248 383725).

If you are unhappy with the conduct of this research and wish to complain formally, you should contact:

Name: Mr Huw Ellis (School Manager, School of Psychology, Bangor University)
Email: huw.ellis@bangor.ac.uk; Tel: 01248 383229

Appendix T
Staff consent form

Participant Identification Number for this trial:

SCHOOL STAFF CONSENT FORM

Title of Project: Evaluating a brief, online book sharing training programme for teaching assistants

Name of Researcher: Rebecca Lothian   Please initial box

1. I confirm that I have read the information sheet dated.................... (version............) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.

3. I understand that I will be asked to complete several questionnaires.

4. I understand that the researcher will video record three separate 10-minute observations (at different time points) of my sharing books with a pupil during school visits.

5. I understand that I will be asked to take part in an audio recorded interview after completing the of the training programme.

6. I understand that all information collected about me will be kept confidential unless any matter(s) regarding child protection issues arise.

7. I understand that any public dissemination will not include data that is identifiable to myself.

8. I agree to take part in the above study.

_____   _____   _____
Name of Participant   Date   Signature

_____   _____   _____
Name of Person   Date   Signature
taking consent

Appendix U

Alternative Books Used at Baseline
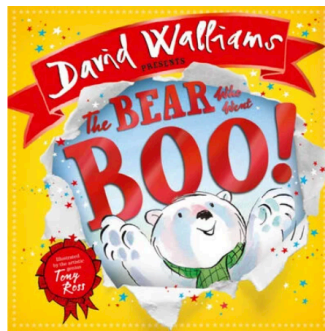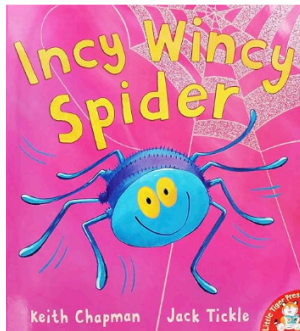
Appendix V
Excerpt of a Teaching Assistant's Interview Transcript

R: OK. So can you tell me about your experience of any training you've had for this or any similar previous role as a TA, so it doesn't have to be reading relating?

TA: I haven't had any other previous thing with with reading or anything. But I've really enjoyed this course? Yeah, it's yeah, it's made read book differently. I've always been very enthusiastic reading books anyway.

R: Yeah, I could see that at baseline.

TA: Yeah I mean four children so I've I've always, yeah, loved reading books and loved reading books myself, but I've always loved it. But it's made me look at it differently and not just read the words anymore. You know it's I used to sort of read the words and they used to point things out, but I make, I think, make more of conscious effort now to look for other things that's in in the book. Yeah, yeah. Really enjoyed it. Yeah. Yeah.

R: Good I'm glad. And how did you find the the two days of online book sharing? How was that?

TA: Yeah, they were good. It was difficult to read to my colleagues like they were children. That was that was difficult. But yeah, it was, I think that helped me sort of realise that yeah, you don't just need words in a book. Yeah. And I've read the ones without words in the class for the whole class, and it's taken about four sessions to go through the whole book. Yeah, and there's one little girl there, she's straight away, as soon as I open a book, she's named the character straight away. Cause I'd say what do you think's happening here? And she, for example, she's gone well, Jack's doing this and I'm going well who's who's Jack and she went that the boy there. As if to say...

R: How do you not know?

TA: how do you not know? But she made the names and then when you go to another part and she goes, oh, say Reuben's really annoyed there. And I go well who's Reuben? The boy in the striped top. Oh right. OK. Yeah, yeah. She's she's really enjoyed it this other little girl yeah. Yeah. But they've all they've all got so involved in it rather than when I read a book most of them are readers some of them are sort of (makes noise), but, they've all sort of this is our story. We're making this story up so it's yeah. It's been good. Yeah. Yeah.

R: That sounds really nice. And in terms of the training, did you feel that we explained the skills in enough detail?

TA: Yes, yeah totally. Yeah yeah.

R: And did you feel it was relevant to your level of experience?

TA: I didn't at the time. But cause at the time I thought well you're gonna teach me to read? I've been reading with my my eldest is 33, so I thought I've been reading to children for for years. But then afterwards, yes. Yeah.

R: Yeah. OK, brilliant. And what did you think about the length of the training? So the fact that it was only two half days?

TA: I thought it was plenty enough really. Yeah, it gave you everything you want wanted in a concise, exact way. Yeah, it was brilliant.

R: Yeah. And how did you feel about the process of completing the training online?

TA: It's fine, yes. Yeah. No problems.

R: Yeah? No issues, no technical issues with getting online or anything like that?

TA: No, it was just sort of because there was so many of us trying all trying to to to get in. We did try to get that there was just three and two of us, but the other two just sort of kept on coming. I don't think they knew how to log on or something. I don't know. Yeah.

R: OK. Yeah. Yeah. OK. So tell me about your experiences of using the skills and the books in the classroom.

TA: Like I said to you before, it's just. a book now lasts ages and just the children enjoy it so much that it's their own story. You know, this is them writing a book, basically. And it's not just sitting there listening to me. And this can sometimes get bored. Doesn't matter how animated you get, they can you know, just a certain amount of them get bored because they don't understand what's being read to them and I think unless you're actually doing 1 to one with them, but without the book, without the words even the ones who are really, really not into it were getting into it. Yeah, yeah, yeah.

R: And were there any particular books that you found that they engaged with more or?

TA: They really liked the hug but the um oh I'm just thinking about the girls the boys and girls names, but there's there were no boys and girls names. That's that's the other girls getting in my head. The one where they were they had The Dirty hands on the washing and they had to go.

R: Oh all's well that ends well?

TA: Yes, yeah, that one they really enjoyed that one They they got, I mean we were reading I think it was two. Well, reading, we were doing 2 pages a day if that. That we couldn't, you know, it was lasting that long they were finding so much in it. And because there's 20 is it 26 in the class and they all wanted to say something about something on it. And not just one thing. Once somebody else had said something it sort of clicked something in their imagination and their hand was up again and this is happening so its yeah. They really, really enjoyed that one. Yeah. Yeah. There was a lot in it wasn't there? Yeah, yeah.

R: And how often did you find yourself practising? Was it daily, weekly, or more sporadically?

TA: Whenever I was covering PPA mostly, which was two times a week. Yeah. But I mean even two times a week, you'd think they'd forget. So we'd recap at the beginning and the recap would take almost as long because they really wanted to say as much as possible, I mean, sometimes I did it three or four times a week, cause I'd say to ▇▇▇▇▇▇▇ do you mind if I just carry and she oh no it's fine. But yeah, the recap they all used to and I used to think I'm gonna let them carry on doing the recap because it's good for their memory and everything, isn't it? So it's yeah, it's good. Yeah.

R: Yeah. And were there any specific skills that you found yourself using more so than others?

TA: Looking into feelings and things like that, things that I would never have thought about in in a book before. You know, if they'd have said oh the little boy is sad, then yeah, the little boy is sad. But I never would have thought about asking them how do you think they're feeling because in that one I've just read now with Sophie I was saying, how do you think they feel? And she's straight away said they're angry. But I would have if I was reading it to er, I'd of gone ohh, do you think they're a little bit scared there? But, in her mind, they were angry that the the cow had come through. She was angry, and I was just thinking, oh, they were scared, but yeah. So it's to give them the choice of feelings. I think that's a major thing in it. Yeah.

R: Yeah. And I guess it gives you insight into the feelings that they've they've experienced or not experienced.

TA: Yes. Yeah. And you, you know, their feelings are not always going to be the same as we presume they they should be or are sort of thing. Yeah.

R: Were there any times when the children weren't engaged in it? (TA shook head) No?

TA: No, not at all. No.

R: OK. So, have there been any benefits of the training for yourself? And if so, what?

TA: Just the way I read. Yeah, just complete I I mean, I'll look at the words, if there are words in it. But I don't always follow the words anymore I'd let the child lead lead a bit more. So yeah, it definitely has changed the way I read a book. Yeah.

R: Yeah. And what about for Sophie or any of the other children that you've worked for? Have you seen any benefits for them?

TA: Just their imagination. Their imagination just it's brilliant. Yeah. Just to see them all like I say, even the ones who are not easily engaged in it, their their imaginations going, and, there's none of them really said anything stupid either that, you know, you'd think they sometimes they'd say something just for the laugh. But no, none of that. So yeah.

R: Yeah. Aww, that's really good. And is there anything that has made it difficult for you to use the training in the classroom?

TA: Time. That's all.

R: Yeah. OK. Are there any aspects of teaching children language that you feel the training does not address?

00:09:11 TA: No, no, not really, no, because it could be Japanese, French, you could you could do it anywhere couldn't ya? It doesn't make any difference as long as you're the same language as the child the child understands you, it's yeah.

R: And do you think it's feasible to implement book sharing in the classroom? And will you be continuing to use the skills moving forward?

TA: Oh, definitely. Yeah, definitely.

R: Yeah? So if you were creating a plan of what ATA would need to make it easier to implement, what sort of things would you suggest?

TA: To let the child lead. To to take a step back and sort of let them do it more. Yeah. And if you do see that, it's getting a bit sort of stale and nobody's saying anything then you you sort of ask a question or a leading question. But mostly just let the children do it. Listen to them. Ask them encouraging questions. Ask them you know about feelings, about what can they see? Remember, it's shapes, colours, numbers. Just keep all that in it. And but mostly let the child lead the book. Let their imagination go wild. Yeah.

R: Yeah. Yeah. Aww, that's lovely, actually. I like that. So that's it for my questions. But do you have any further comments or suggestions for improving the training?

TA: No, I just want to say thank you.

R: Aww, brilliant.

TA: Thank you very much.

R: No problem. It's been our pleasure.

TA: Aww, thank you.

R: OK.

R: Researcher
TA: Teaching assistant

Appendix W
Codebook

Theme	Subtheme	Code	Reference
TAs experience of book-sharing and related training	*Previous training and how this differed from the book-sharing training (73% - 8 TAs)*	Reading training (Lack of)	"…this book training is the first one that I've had I think that's not been like a compulsory one." TA 7 "I haven't had any other previous thing with reading or anything." TA 10 "I don't think that I can recall that I've had any sort of reading book training before." TA 1 "I haven't had this type of training reading with children before." TA 5
		Literacy	I've done sort of single days training on things like science and literacy in the classroom. TA 9
		Phonics	Welsh phonics I've done that course as well. TA 8
		Sign language	I've done the sign, BSL course TA 8
		Qualifications	"Obviously I went to college prior I did six week placements. And I qualified as just a level 2." TA 6
			"I'm a drawing and talking practitioner, so I've done that training." TA 3
		Structured approach	"That was kind of to do with reading skills and encouraging children to read more, so it was slightly. Yeah, it was a different sort of emphasis. This was sort of more specific and structured I'd say in the approach… Whereas the other was more general… like how to encourage children to read in different contexts,

			you know in the class and things like that." TA 9
	What TAs liked and disliked about the book-sharing training (Positive: 100% - 11 TAs; Negative: 45% - 5 TAs)	(+) Background	But I thought knowing a bit about the background and where it had come from was interesting. TA 9
		(+) Informative	Yeah, very informative and I feel like I got what I was meant to out of it. TA 7
		(-) Information overload	"So it was a lot to take in." TA 4
		(+) Detail	Yeah, it gave you everything you want wanted in a concise, exact way. Yeah, it was brilliant. TA 10 "I mean, it's enough to introduce it to sort of show you sort of how to do it and to implement it, I think." TA 1 "I understand how they wanted you to try and interpretate, speak about the book and things like that in you're reading." TA 5
		(+) Practicing the skills	I felt that worked quite well, like sort of introducing the technique and trying them out. TA 9
		(+&-) Practicing with colleagues	And just practising doing it with colleagues really. That was that was good fun yeah. TA 11 "It was difficult to read to my colleagues like they were children." TA 10
		(+) Relevant	"Yeah, I think so." TA 11 "Yeah, definitely, yeah. Because I do a lot of speech and language work, in our unit as well.

			So yeah, no it's good." TA 3 "It's all been relevant, I would say so." TA 4
		(-) Not appropriate for skill level	I did feel with the first session that it got off to quite a slow start for teaching assistants who've maybe got more background kind of thing. TA 9
		(+&-) Online	"I think it worked well doing it online and having like the little breakout [rooms]." TA 7 "I think it's easier to get distracted online." TA 8 "…online is just so much more flexible, isn't it?" TA 9 "It's fine, yes. Yeah. No problems." TA 10 "Yeah, fine. We're a bit used to it now aren't we after COVID." TA 1 "I don't like doing online. But I found it quite good really." TA 2 "I don't think we had too many technical issues. I think it went OK." TA 3 "Fine, no problems at all." TA 5
		Preference for face-to-face training	I'm more practical I've gotta be honest than what I am on a computer. TA 6 I think face to face training's easier to take in TA 8 I do think… in person training is probably better in a way than online. TA 9

			I don't like doing online. TA 2
		(+) No travel	it was easy because you didn't have to travel anywhere TA 8
		(+) Breakout rooms	the breakout rooms, I think that worked quite well. TA 9
		(-) Logging on	"Apart from that first day when we couldn't get logged on, but it always happens, doesn't it?" TA 7

"No, it was quite easy once you got logged in, it was fine." TA 4 |
| | | (-) Number of people to computer | there was so many of us trying all trying to to to get in. TA 10 |
| | | (-) Completing training onsite at school – switching tasks after | "All that information to take in and then coming back to work in the classroom. And you kind of just have to put all that to the back of your mind then and focus on what you're doing within the classroom." TA 4 |
| | | (+) Handouts | "…but I've got all that to read through to remind me." TA 8

"And it was good to have the handout as well. So, I could go back to the handout to remind me and stuff." TA 3

"And we had the paper copy of it all as well, didn't we? So yeah, it was helpful." TA 4 |
| | | (+&-) Length of training | +ve "Yeah, not a problem. Yeah, it was fine." TA 6

"Yeah, it was it was enough I think." TA 7

"perfect length of training." TA 8 |

			"Yes, I think it was. TA 9 "I thought it was plenty enough really." TA 10 "Ohh no, that was plenty." TA 11 "Yeah, I think that's enough." TA 1 -ve "Yeah, I personally feel if it was spread over like a weekly thing or, you know, to focus on two things per week over three weeks or whatever, that would have been better for me." TA 4 "I think the first day the first session I definitely felt was long." TA 9
		(+) Two sessions	"I think it was worth breaking up into two sessions." TA 9 "I think if you do it all in one go, it can be overwhelming. And obviously, then you've gotta remember too much. Whereas doing it in two halves I think was better because you could try one lot first and then add the first part into the second." TA 2 "Yeah, I think that it was better two half days. I think doing it over a full day would have been quite a lot to absorb. So, so it was good doing it in two bits, yeah." TA 3
		(+) Meeting other staff	"Yeah. Fine." TA 7 it's quite nice I think having an element of

			meeting other staff. Even if that's online. TA 9
		(+) Different ideas	different people have different ideas and just taking other people's input and their experiences. TA 11

Yeah, it was interesting to see what people thought. TA 5 |
| | | (+) Insight from others | Especially when we had interaction off other groups when we were doing the screen. TA 2

More so listening to the other people that were in the meeting with us because it gives you a better insight, doesn't it? TA 4 |
| | | (+) Sharing ideas | You know, because if we didn't have the, the same idea as what they had… You think ohh yeah, I didn't look at it that way. TA 4 |
| | | (+) Talking about experiences | I think it is beneficial… hearing people's experience TA 9 |
| | *Satisfaction with the book sharing training (100% - 11 TAs)* | Initial perceptions | and at first I was a bit like oh, I'm not sure about, just asking lots of questions. TA 9

I thought well you're gonna teach me to read? I've been reading with, my eldest is 33, so I thought I've been reading to children for years. TA 10

Because when we said we were gonna do this, I was like (tuts) I can read stories. I've been doing this for years. TA 11

Initially I was dubious, because I would say that reading books with the |

			children is one of my strengths and I was a bit I didn't really sort of understand. TA 1
		Final perceptions	but then when you saw the specific skills and things, I think it sort of made more sense as an approach. TA 9 But then afterwards, yes. TA 10 I have learnt stuff which I didn't think I would. TA 11 But yeah, yeah, no, it has been beneficial. Whereas I didn't think it would be initially, yeah. TA 1
		Beneficial	like I say I do think it is beneficial. TA 7 But yeah, yeah, no, it has been beneficial. Whereas I didn't think it would be initially, yeah. TA 1 I really think this training has been beneficial because our children have enjoyed stories more. TA 2
		Useful	But I definitely think it's it's a useful thing to do TA 9
		Versatile approach	You can use Makaton to get the other children on the carpet involved. TA 6 I think it is good to to sort of extend vocabulary and for them to sort of think themselves… make connections about what's happening and why? Or what they predict might happen, or, you know, linking back. There's quite a lot of skills involved TA 9

			because it could be Japanese, French, you could you could do it anywhere couldn't ya? TA 10 you can bring everything into it, can't you? TA 11 I mean, it develops their vocabulary, it's developing their mathematical skills, and their imagination. So no, I don't think there is anything that it does not address. TA 1
		English Second language	I can see say that it had value with a English second TA 9
		Distraction technique	it's good as a distraction. TA 3
		Desire to continue	so it will I think people will carry on. TA 6 But like, say, my personal life, I will. TA 7 …if I was staying here, yeah definitely yeah. TA 8 I think I would hope to use to use some of the skills definitely, yeah. TA 9 Oh, definitely. Yeah, definitely. TA 10 We I think me and [TA name] did agree on that. To see if we can get that put in. TA 11 Yeah, I think it is feasible and I will use some of the skills moving forward. I mean, we read with the children weekly, they're reading books anyway, so we do have 1 to 1 with them and it is possible to

			discuss the book, prior to them reading the words so that in a small way on a 1 to one basis but it's totally feasible to share as a class. TA 1
			I will be reading the others to them TA 2
			Yeah, no, absolutely, we'll I'll use it. TA 3
			I will continue to use the skills. Definitely. TA 4
			I still will add bits in. TA 5
Experience of using the skills	*Frequency and format of implementation (100% - 11 TAs)*	How often	"But I have used the lessons I've learned with everybody… Every day. I do readers every day" TA 6
			"I've not done it much at all." TA 7
			"Sporadic, just as and when." TA 8
			"I think altogether we've done… 14 sessions. So I did nine of those with just [child's name] and five with friends." TA 9
			"Whenever I was covering PPA mostly, which was two times a week… I mean, sometimes I did it three or four times a week." TA 10
			"I try and do it cause I cover the class on the Wednesday I try and do it then cause I'm more in charge. It's my input. I do definitely do it on a Wednesday. So at least once a week. At least

			once a week, yeah." TA 11

"I haven't been able to practise it one-on-one very often, but I would say at least three times a week I would read a book with the class." TA 1

"Well, we have stories nearly every day." TA 2

"But we've done it when we can do it." TA 3

"Probably not even a handful of times that I've had an opportunity to." TA 4

"Well, we did it nearly every day last week, but the week before she was off a couple of days, so I didn't get to do it at all. And then just wherever I could slot it in because I was busy." TA 5 |
| | | One to one | It's definitely been nice to sort of work with one child, you know because you're often working with big groups TA 9

I haven't been able to practise it one-on-one very often TA 1

"…and we've I've done it 1:00 to 1:00… [with] the one who didn't like books… But now he will sit he'll let you read the story, but he has to get involved." TA 2

I found I've been using it more as a one to one, because we work with additional needs. So actually it's easier to keep |

			attention on a 1 to one rather than as a group. TA 3 I've only done it on a one to one basis though TA 4 Sitting on your own as a 1 to 1, there's just not enough time. TA 5
		Groups	+ve to the group because there's only seven of them in the class anyway. TA 8 And because there's 20 is it 26 in the class and they all wanted to say something about something on it. TA 10 then I did it with the whole class, which was a bit a bit wild at one point because they're all giving me different ideas. TA 11 so we've only got maximum 12, so it's quite a small group, so it's quite easy to do it with them. TA 1 We do it as a group TA 2 "But if I've done it as a group we sit around a table rather than sitting in an open space on the mat. Cause they're they're more focused." TA 3 "Book-sharing as a group… I think's really good because it's quite nice that… you're involvin' the lower ability to the high ability." TA 5 -ve I haven't used I haven't used it with the class as a whole because… it's too

			big a group isn't it to start asking questions, cause then everyone wants a turn sort of thing. TA 9
		Pairs	We looked at books like him and me together, and then he looked at it with another child TA 9
	Experience of using the skills (91% - 10 TAs)	Easy skills	I remember the counting, you know, the easier ones. TA 8 I think probably they're easier to draw upon TA 1
		Complex skills	but the more complex ones you know, like getting them to talk about the emotions and relationships and stuff. TA 8
		Use more	" So we did a lot of counting… and sort of naming… we did the sort of enriching language… linking definitely." TA 9 "The one how do you think people feel?" TA 11 "…countin comparison, making links, talking about feelings and building an enriching language would be the main." TA 1 "We do a lot of talking about feelings because that's a big thing for us teaching them about

			emotions and linking." TA 3 "I think more the counting and the colours and things like that was more... Feelings… I used more of them. Relationships not much of… She didn't engage on that as much as all the others. Building enrichin' language, getting her to tell me a bit more what was in the Handa's surprise." TA 5
		Building and enriching(9 TAs - 82%)	"if they're not sure of what something is and I say, oh, do you think it could be this or the other word for that is this." TA 8 "we did the sort of enriching language… he didn't initially know the word for basket say and he didn't know the word for ostrich, but he picked those up" TA 9 "Cause I'd say what do you think's happening here?" TA 10 "But then like, you know, with Eva she's not sure of a lot of words in Welsh. So I ask, I tell her she can say in English if she wants and then I'll tell her what they are in Welsh. So I do that a lot." TA 11 "And enriching language is something they need. So especially with it being a most like a bilingual school" TA 1 "I found myself using the sort of what, why" TA 2

			"And [enriching] language definitely… Because I do a lot of speech and language work, in our unit as well." TA 3
			"I've asked her you know, what's the animal can we do the can we do the sounds of the animals" TA 4
			"So every time I turned a page I asked them what season they thought it was. What could you see?" TA 5
		Feelings (7 TAs – 64%)	"it's that opportunity to talk about feelings and things, yeah." TA 7
			"we did talk about things like emotions and stuff and how they were feeling I suppose." TA 9
			"Looking into feelings and things like that, things that I would never have thought about in in a book before." TA 10
			"The feeling one was really good because you don't think about that really, when you're reading a book, but you ask them how do you think they feel? How would you feel? I like that." TA 11
			"but I think with small children it's good for them to be able to discuss their feelings and identify their feelings" TA 1
			"We do a lot of talking about feelings because that's a big thing for us

			teaching them about emotions" TA 3 "Feelings was like are they happy, are they sad? I used more of them." TA 5
		Numbers and Comparisons (7 TAs – 64%)	"Yeah, [used] the counting ones [most]… Because I think as well because they're younger so they're only just learning, you know, like their numbers and stuff as well. I think it was a good way to get them to count out loud instead of just saying ohh there's five and just guessin'." TA 8 "So we did a lot of counting I would say we did things like that quite naturally" TA 9 "I'd probably say more than others I would put countin comparison…[because] The counting is a skill that they're able to do." TA 1 "and how many?" TA 2 "Because I work with foundation phase. So reading the books and counting the sheep and bringing in numeracy and that into it as well, yeah." TA 3 "starting to add up things on the pages" TA 4 "I think the more the counting" TA 5
		Linking (6 TAs – 55%)	"And then um yes, linking definitely sort of linking parts of the story, maybe more than linking to everyday life I would say." TA 9

			"You know, and then ask their experiences as well." TA 11
			"and make links." TA 1
			"I think it's because we have fruits for snack. They've compared some of the fruit that they have to what was in the book." TA 2
			"linking, so I do quite a bit of linking things in so that it becomes personal to them as well." TA 3
			"So the linking one went well." TA 4
		Relationships (3 TAs – 27%)	"I don't think she really understood properly if I was trying to say oh who's this… She didn't pick up, you know, like oh that's the mum or like that's the brother. It was just oh, that's her friend." TA 8
			"The relationships one went well." TA 4
			"Relationships not much of she wasn't quite. She didn't engage on that as much as all the others." TA 5
		Perspectives (1 TA – 9%)	"he kind of got into the pattern of… they don't see you know, like the children are seeing, but he can't see he's looking the wrong way, you know and he'd point that out on every page." TA 9
		Intentions (1 TA – 9%)	"And what was it talking about intentions. Yeah no, I mean, I guess to a certain extent we did… they did talk about saying, yeah, taking the brush because he didn't like baths, so I I suppose I

			suppose stuff did come in" TA 9
	Experiences of using books (10 TAs – 91%)	(+) Characters/Animals	The Handa's surprise. So he liked all the he liked all the the animals you know, he did, he sort of seemed to relate well I think to the pictures in that story. TA 9 But probably the Harry ones more than others cause the children like the dog TA 1 I've let him pick a book, because I think sometimes if I've picked a book and there's no character that he sort of likes, he doesn't like the story. TA 2
		(+) Recognising familiar objects	they could all recognise the fruit. TA 4
		(+) Sequencing	They just really enjoy the sequencing. TA 6
		(+) Simple	It's very simple, isn't it? TA 9
		(+) Colourful (-) Too long	They're more colourful. TA 6 She preferred, you know, like, Handa's surprise to Harry the dog. Yeah, I think that one was a little bit too long for her and it's not as colourful is it? TA 8 Handa's surprise we like. That's quite colourful. TA 3
		(+) Adventures	he liked the fact that Harry was going on all these adventures and getting really dirty and stuff. TA 9
		(+) Funny	They like that because it's funny TA 1
		(-) Complicated Story	Harry, The Dirty dog was more complicated story TA 9

		(+) Most read	And actually the ones that I read the most are the ones without the words. TA 1
		(+) Different	I think it's because it's different. TA 5
		Novel experience	in all the years I've worked for flying start mudiad and in the schools, I've never had to read a book with no words. TA 2 And I've never until I've done this training I've never used a book without words. TA 3
		Different ideas	I've done it in two different classes did it with my class and then another class that I do on a Wednesday. And yeah, it was amazing. Just different ideas. TA 11
		Children who don't like reading were engaged	without the words even the ones who are really, really not into it were getting into it. TA 10 that was the one who didn't like books and only two pages. But now he will sit he'll let you read the story, but he has to get involved. TA 2
	The adjustment to book-sharing (91% - 10 TAs)	Initial use of skills	to begin with, I very much tried to sort of use the skills as it as it was set out TA 9
		Prepping for sessions	I mean to begin with, I think I looked very much at the skills before doing the sessions TA 9
		Temptation to read	Because of what we were taught, it's easier if you don't have the words on the book initially, because you tend to sometimes if there is a silence, go to the words. TA 1

			if the words are there you you kind of you wanna read the words TA 3
		Lots to remember	the things that we went through… I try and remember those while I'm reading it. TA 11
		What children are used to	So you're trying to do the opposite of what they've been taught for the past three years TA 6
		Adjustment	No, they just seem to adapt to it really quick. TA 8 But he kind of got used to the fact of looking, looking at the pictures. TA 9 At first there was a bit sort of why aren't you telling me a story? TA 2
		Multiple reads	So we did look at this maybe three times… and he became more sort of confident in knowing the story and knowing what was going to happen. TA 9 …did it kind of intuitively with him… but obviously I had read through these several times by then TA 9
		Apprehension	I felt that asking too many questions was putting him off because I think it was making him a bit apprehensive, almost like I'm being quizzed. TA 9
		(Feeling) Pressured	I think actually he's maybe feeling a bit pressured by too many questions. TA 9
		Hesitant	I felt he was more hesitant with me than… your first visit. TA 9
		Relaxed	I think he was more relaxed and confident

			with the second child sometimes. TA 9
			but then I just sort of relaxed a bit. TA 9
		Enjoyed book-sharing	And they did seem to enjoy being part of the tellin' the story instead of just sitting there listening. TA 8
			And I like yesterday so we did we did this book and he was with his friend and he was like, really animated in the context of having a friend there and kind of quite excited both um enjoying the story, but also just excited about being with his friend, you know, so I felt in some ways he for him, he actually got more out of it with a friend as well. TA 9
			the children enjoy it so much that it's their own story. You know, this is them writing a book, basically. And it's not just sitting there listening to me. TA 10
			And they really enjoy and they, they ask can we do that. TA 11
			So yeah, they quite enjoy it. TA 1
			they have enjoyed story time more TA 2
			I quite enjoy it. TA 5
		Wanted more	And then they wanted to do it again. TA 11
			Because they've asked for the stories again TA 2

			"Other than that she was a bit tired, she didn't integrate as much as she did the other. That was only because she was a bit tired. But it wasn't... she was still up for it. Oh, yeah, she still wanted to do it." TA 5
		Used other books	even a book not on the list that I've read. TA 6

We also shared another story that just happened to be in the room when we were doing it TA 9

there was one I had no words in the book and it was all about seasons. It was. So every time I turned a page I asked them what season they thought it was. What could you see? TA 5 |
| | | Using skills in personal life | I've got a niece and nephew and… I think it has changed the way that I will read them stories." TA 7

I've been practising it with my son as well. TA 8 |
| | *Child engagement (91% - 10 TAs)* | Child engagement | but the other kids did you know, like, focus and concentrate. TA 8

his engagement was definitely stronger with another child. TA 9

But they've all got so involved in it rather than when I read a book TA 10

the books with no words fabulous, really enjoyed that and they're quite long, aren't they? Cause well, they're not long, but the children make them longer. TA 11 |

			[child's name]'s probably one of the quieter ones… so he doesn't always engage so the others are are more lively. TA 1 So they get more involved now. TA 2 It is just hard trying to find that time to do it, and when the child's in the the frame of mind. TA 5
		Works on some	It works on some but not all. TA 6 There's one or two that can't, they don't, they just cut across. But that's just them. That's just normal anyway. TA 8 I mean you get the odd one that doesn't listen, but. TA 11 Because I could I could pinpoint other children that might not be having a good morning, but then they could come and sit with me and do that, not a problem. I think it's down to the individual. TA 4
		Same children contributing	The only thing I will say is it's the same children answering TA 11 More or less, you seem to get the same group of children that say more than than others. TA 5
		Well behaved?	They're quite good. TA 1 they've been really good. TA 3
		Silly vs serious answers	Sometimes… saying silly things, but other days she is… more serious TA 8 and, there's none of them really said anything stupid either that, you know,

			you'd think they sometimes they'd say something just for the laugh. But no, none of that. TA 10
		Longer	And even just a book to the class. You know, sometimes it has taken a couple of days to get through it, cause we have chatted. TA 6
			Like it takes longer to read the story, but that's good because normally you think, oh, I've read that much quicker than I expected it to, but now it takes longer. TA 8
			a book now lasts ages TA 10
Positive outcomes	*Changed the way TAs read (91% - 10 TAs)*	Reading differently	it definitely has changed the way I read a book. TA 10
		Ignoring the words	and not just read the words anymore. You know it's I used to sort of read the words TA 10
			I do not necessarily use all the words whereas I would have before. TA 1
		Child led	letting them tell me the story rather than me tell them TA 8
			So it was a bit of a mix because he did he did on once or twice sort of just say, oh, can you just read me the book. So I did. TA 9
			To let the child lead. To take a step back and sort of let them do it more. TA 10
			I've let him pick a book TA 2

			Whereas before I did read the words to them, which I haven't done since, and I've just let them take the lead TA 4
		Slow down	Not to rush. TA 6 Just slow down and just do it at their pace sometimes TA 11 It's not rush. It take my time and to talk about the pages and the pictures TA 3
		Patience	And sometimes children won't answer as soon as you've asked the question, just be a bit more patient. TA 6 I've been allowing them more time to think TA 1 they will give you an answer but some of them it takes them a while TA 2
		Increased awareness	made me more aware when I'm reading a story TA 3
		Conscious effort	make more of conscious effort now to look for other things that's in in the book. TA 10
		More observant	I've become more observant of a book. TA 6
		Think more	It makes you think about reading more. TA 6 think about what you do and how you do things. TA 9 think about what I'm doing a little bit more sometimes… and think sometimes why I'm doing it, you know? TA 11 you read a book before and it was like you'd you're not thinking about

			the skills you're using and what how much more there is to read in a story. TA 3
		No correcting	not always correct them as well TA 6

I was saying, how do you think they feel? And she's straight away said they're angry… and I was just thinking, oh, they were scared, but yeah. So it's to give them the choice of feelings. TA 10

I said no, it's the same thing. TA 2

I've not corrected them. I've praised them. TA 4

Like when we very first read it she thought it was the mum and the little boy… I didn't correct her and we read it again and it was the sister and little boy. TA 5 |
| | *Increased interaction and use of language (82% - 9 TAs)* | Engaging the children | because now I can get him to interact with the story TA 2

I think it's easier to keep their attention because if you find they're drifting off, then… use a bit of linking and saying ohh yeah, but have you been to a farm? TA 3

the ones that are quieter. So yeah, I've tried to engage them a lot more. TA 5 |
		Talk more with the children	I thought it was good to… I suppose talk more TA 7
		Lots to discuss	There was a lot in it wasn't there? TA 10
		Better discussions	to be able to have a better discussion about the picture TA 3

		Learned new words	So if I say ohh, who remembers what this is they're like, oh yeah, I remember. Or I just have to prompt em, you know, with the 1st letter or a clue. And they're like, oh, yeah, it's this. So they are learning new words. TA 8 I think he has sort of learned odd new words and things that he didn't know before. TA 9
		Vocal	And she's a lot more vocal on the carpet TA 6 I think it was a good way to get them to count out loud instead of… just guessin'. TA 8 [Child's name] was less shy and talked more about the story. TA 9 they really wanted to say as much as possible TA 10 She does speak a bit more. And comes out with a lot more in the stories. TA 5
		Language assessment	talking about the books… is perhaps quite a good way of informally assessing children's language TA 9
		Checking child's understanding	let's count them together and then you can check TA 8
		Increased scaffolding	but then also the friend's English is obviously stronger, so in some instances I guess that sort of helped develop things because he's got me and a friend who's sort of talking about stuff. TA 9

			And they'll explain to the other children TA 2 So it was interesting that they learned from them. TA 5
		Understand story more (due to increased scaffolding from both TAs and peers)	helping the children understand more TA 2
		(Might not receive this in) Home learning environment?	And I think a lot of children actually don't have a lot of children, some of our children, won't have books at home at all TA 9 Which I find is quite nice really, because I don't know if they get stories at home. TA 2 but I think any doing any books is a benefit anyway to children cause we've got some vulnerable families, so it's they might not have books at home. TA 3
	(c) Helped to build TA-child rapport (64% - 7 TAs)	Bonding	cause it just sort of strengthens the bond that you've got with the child I think. TA 7 in terms of our relationship, me getting to know him TA 9 it's quite nice that he's got to know me a little bit more because he's coming up to the class next year. TA 9 She's a little bit closer to me… I'm just building a relationship with her and it's… made that easier. Much easier. TA 11

			She loves your attention and sitting reading a book she does. If you said to her come on, were gonna go read a book. Oh yes, she quite likes that. TA 5
		Quality time	So I'm spending more time with them reading, not just saying OK, that's it, go and do what you want now. TA 8 And yeah, just having time to read with them, I like that. TA 11 Just a little bit of one to one time has been a benefit for her TA 4
		Understanding the child	you kind of realise more where their limitations are, where there is vocabulary or sort of constructing sentences or, you know, that it sort of gives you a bit more insight maybe. TA 9 I think this training has helped me to understand him as well. TA 2 The linking part of it was particularly good. Because it gives you a little bit of an insight TA 4
		(Fears of) Getting things wrong	I noticed she she's scared of getting things wrong a lot. So she just goes umm she looks at you TA 11
		Different interpretations	how she sees it totally different to what I see TA 5
		Child's thoughts (understanding how they view and make sense of the world)	it's nice to see what they think. TA 5
		Encouragement	felt like he needed that encouragement of having

			a bit from me rather than too much on him TA 9 I go you do know. TA 11
	General benefits for the children (73% - 8 TAs)	Confidence	But he was more confident, laughing and smiling more with with a friend in there as well. So like it just sort of brought him more out of himself kind of thing. TA 9 she is more confident with me now. TA 11 And they'll explain to the other children… if they're confident, but if they're not confident, they'll just point. TA 2 they're a bit more confidence to to put their hands up and say or to shout out TA 5
		Recall	it's helped them recall the story more than… they would have prior. TA 6 I think it's easier for them to remember it as well instead of me just sitting there, reading the story out for them. TA 8 So we'd recap at the beginning and the recap would take almost as long because they really wanted to say as much as possible TA 10 he can actually tell me what happened. TA 2
		Inquisitive	▇ has become more inquisitive TA 6
		Imagination	Just to see them all like I say, even the ones who are not easily engaged in it, their their imaginations going. TA 10

			Sort of developing their imagination a bit more. TA 1
		Making own story	he makes up his own story really TA 8
			they've all sort of this is our story. We're making this story up TA 10
			I mean some of the answers we got weren't right, but they were you know, good enough. It was their version of the story. TA 2
Barriers to implementing book-sharing and ways to overcome them (100% - 11 TAs)	*Time (91% - 10 TAs)*	Time	"It's just time because it goes so quick the schools day." TA 6
			"Like I say that it's hard to get everything into a day anyway. It's like despite adding something new in." TA 7
			"in the context of school, even if it's like only 10 minutes that sometimes it just doesn't go to plan, you know, fitting it in everyday it just doesn't go to plan." TA 9
			"Time. That's all." TA 10
			"At the moment I have tried but it's just having time. You know you can see it's it's crazy here sometimes." TA 11
			"I would say it's always difficult to find time to sort of do individual work with the children and with the sort of schedules we've got to find time to do extra things. But to actually share it with the class has not been difficult at all." TA 1

			Time yes, because you don't want to just rush the story either. You want to make sure you've got time. So if you've gone to do a story and then something else has happened, then that's kind of you've got to change your plans and you can't do the story and you do something else, but. TA 3 "And of course cause of nursery as well there's only 2 1/2 hours to fit everything in too so I have found that quite difficult." TA 4 "It is nice when you get time. If you do get time to sit with them." TA 5
		Limited staff	"'cause there's only you and a teacher in the classroom… if there was a lot more people within the class, you've got time to go out and to have that with every child" TA 5
		Staff sickness	"Like having a supply teacher in." TA 9 "Or change of staff. If the teacher's off sick and things like that. So then it's difficult to use it." TA 3
		Child sickness	"she was off a couple of days, so I didn't get to do it at all." TA 5
		Unexpected events	"having different other sort of events going on in our class." TA 9
		Designated slot	But I do believe if this could be instilled in September, I think it'd be on the classroom rota, I do. TA 6 It wasn't, you know, like the same time every day. TA 8

			I suppose making a bit of a a space for it or including a bit of time for it on the timetable. TA 9 That we do have a session where we do do reading quietly with a group, not the whole class. TA 11 Probably have have we do a lot of visuals to have a visual timetable and timetable it into our routines so the children can see, yeah. TA 3 Having it like scheduled into the day. TA 4 If they could be fitted into the curriculum in a part of the day. TA 5
		Time of day	I would suggest the time would be before focus task in the morning after registration TA 6 that it would have been better to do it more straight after lunch TA 9 the best time I found with her was in the morning… she was more alert more interested cause by the afternoon she was… Lagging a little bit and tired. TA 5
		Integrate into other interventions	And you have these 5-10 minutes, maybe prior to doing your intervention or your readers, or your salts, or your sat or your ELSA. TA 6 So I don't know whether you know like to look at more how to help them read it as well if they wanted to. TA 8

			I mean, we read with the children weekly, they're reading books anyway, so we do have 1 to 1 with them and it is possible to discuss the book, prior to them reading the words so that in a small way on a 1 to one basis. TA 1 … if the teachers asked me I've read some of I've read the words, but then I've discussed the page. TA 5
		Timing of introduction	I think this would be better suited September new term. TA 6 at the start of the year. TA 9 Probably in December, ready for January type thing. TA 4 …this time of year's not a good time because… this last term is a busy term for these children… maybe the beginning of a term… like the second term in is when they're starting to introduce the books to readin'… So the October into Christmas, so it might be that ideal time. TA 5
		Busy periods in the school year	"there is that much going on in the summer term you don't seem to get round everything. There's trips, there's sports days, there's cover required and it's just the last term is just too full on." TA 6
	TAs' lack of control of the timetable (55% - 6 TAs)	Teacher controls timetable	"And obviously you've got your focused tasks as well." TA 6 "… it's a bit hard cause the teacher sort of has

			maps our days out for us." TA 7
			"If the teacher had to go out or sort something and she said, oh, can you just do something" "cause I'd say to ▮▮▮▮▮▮ do you mind if I just carry and she oh no it's fine." TA 8
			"I probably need to talk to the class teacher about… fitting a bit in." TA 9
			"But I know that you know, the teachers have planning and they have to do what they have to do." "I cover the class on the Wednesday I try and do it then cause I'm more in charge. It's my input." TA 11
			"…if they [teachers] knew what it was and… what we had done on that course… they could put that little space in… That's something we can't change." TA 5
		Get teachers involved in training	just getting the teachers involved in this TA 5
		Discussion with teacher	So it might be that I need to go away and talk to Emma about fitting a bit in TA 9
	Children's behaviour and ability (82% - 9 TAs)	Child behaviour	"…we've got quite challenging children let's put it that way and they won't always sit." TA 2
			"If I've got children having a meltdown, then it all depends." TA 3
			"She's done well in the videoing sessions, but when it's not a videoing

			session and she's just with me… it's a little bit different so." "When I when I chose that child I thought it would do her really good and bring her communication on… But it backfired because her behaviour just spiralled." TA 4 "…like we've had a few difficult children so if I've had to go and deal with them because the teachers teaching, it takes me away then" TA 5
		Don't understand	"just a certain amount of them get bored because they don't understand what's being read to them and I think unless you're actually doing 1 to one with them." TA 10
		Age related skills	"So you gotta remember she's only reception, so she can't switch off like some older ones could probably sit, switch off and we could go through it. But there's so much going on in the classroom." TA 5
		Impact of COVID	trying to get the whole class to sit isn't easy with this group… I don't know if it's due to COVID. Or what? TA 4 you've got quite a few children that are still on very low ability because the COVID situation so you're trying to bring them up to speed TA 5
		Location	within a quiet space TA 6 Usually do the reading in the classroom. On occasions where I've been trying to do this, I have taken her out to a quiet space. TA 4

			"I've gone outside… in the classroom it's too loud she can't concentrate as much, she doesn't come out with as much… you gotta remember she's only reception, so she can't switch off like some older ones could probably sit, switch off and we could go through it." TA 5
		Identifying children	but then maybe sort of identifying children that would benefit from it TA 9
		Language deficits	I definitely think sort of target nursery and reception… because a lot of children even come in with not you know, perhaps not great language skills TA 9
		Match children	get the ones that just sit there and don't say much. TA 11

a group of them all on the same ability TA 5 |
| | | Quiet children | Especially for children that that need that sort of one-on-one time to have the opportunity to speak and share and things. TA 7

You know that children that maybe are a bit quiet or perhaps you feel that they sort of just need that extra support. TA 9

it would have been nice just to… get the ones that just sit there and don't say much… and just get their input TA 11 |
| | | Age appropriate | And particularly in foundation phase yeah, with the with the young ones. TA 9 |

			A lot of it wasn't really age appropriate. TA 4
		Age related skills	they're only just learning…their numbers TA 8 they don't really notice the contexts. TA 9 Where reception they don't quite explore it as well, they get quite like quick to turn the pages on books when they're sitting there with their own books TA 5
		Prepare children	And I would take it even further down to nursery reception. To get them glued into the books ready for when they move up and up. TA 6 I would do a a group with the reception ones that are coming up. TA 9
		TAs training parents	But I can see that if nursery staff were on board, they could you know bring in parents and perhaps do a little bit of a session passing on some of those skills TA 9
		Benefits of parents' book-sharing with children	And having that focused time if they did do it at home. TA 9
		Holistic approach	get it into the home as well TA 9
		Parent-school interactions	when children start school… there's a bit more interaction early on and sort of settling them in. TA 9
		Small groups	So maybe it could be used with three children TA 6 But I can see the benefit of trying to do it in in small groups, yeah. TA 9 it would have been nice just to have a smaller group TA 11

			…because you have groups in your classroom you see. You could even start off beginning with just a group of them all on the same ability, same book, and sit with them but don't read the words and just go through what they think in the pictures and then learn to read the words. TA 5
	TA sense of competence (9% - 1 TA)	Discussing concerns	but I remember, you know, saying to you TA 9
		Trusting own instincts	just sort of trusting your own judgement as well the instinct and sort of using the bits that work and then adapting it. TA 9
		Highlight need to trust instincts and experiment with what works	within the training to sort of kind of make it sort of clear that… you have permission to also trust your instincts as a TA. TA 9