

School of Education, Communication and Language Sciences

An exploration of how professional learning opportunities might support the development of adult-child interactions in the early years.

Doctorate in Applied Educational Psychology

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Declaration: I certify that the work in this thesis is my own and has not been submitted as part of any other work.

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Overarching Abstract

The development of young children's language skills has been identified as important for future academic achievement and social development. It is suggested that language acquisition occurs in a rich social context and therefore high-quality adult-child interactions support the development of young children's language. Whilst professional development is generally viewed as a common approach for bringing about change in the knowledge and practice of classroom practitioners, the impact of programmes can be variable. This thesis explores how engaging in professional learning opportunities might support practitioners to develop their interactions with young children to support talk.

This thesis consists of four chapters.

Chapter 1 is a Systematic Literature Review addressing the question: What is known about professional development programmes aiming to develop high quality adult-child interactions to support language development in the early years. Six peer-reviewed papers were identified, and their findings synthesised using a thematic synthesis approach. Two analytical themes were generated: Impact of the Professional Development Programme and Supporting Change. These themes suggested that professional development programmes can result in positive outcomes for participants, and there are a range of factors that might support the development of such outcomes.

Chapter 2 provides an account of the methodological and ethical decisions that informed my empirical study in Chapter 3. My philosophical stance is considered including how this influences my understanding of the professional learning process. The rationale for utilising an action research approach is detailed.

Chapter 3 reports an empirical study exploring how an educational psychologist and early years practitioners might work together to learn about language enhancing interaction strategies and apply them in context. An action research approach was used as a framework to support the learning process and to promote collaboration throughout. A range of professional learning activities were

used to support the exploration of strategy use. Semi-structured interviews were transcribed and Thematic Analysis (Braun & Clarke 2006) was used to construct themes. Themes were discussed with co-inquirers to consider how they might influence future plans. Implications for this setting and educational psychologists are discussed.

Chapter 4 provides a reflective account of the professional and personal learning acquired through process of completing this research. I consider my reflexivity and implications for my future practice as a qualified educational psychologist and researcher are discussed.

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Chapter 1: What is known about professional development programmes aiming to develop high quality adult-child interactions to support language development in the early years? A Systematic Literature Review

Abstract

The development of language is important for both academic and social development. High quality adult-child interaction has been positively associated with language development. Although the literature has suggested what might be present in a quality adult-child interaction, supporting adults to develop their language-enhancing interactions is a more complex process that requires the development of both knowledge and skills.

The present review focusses on ways in which engaging in professional development programmes might enable adult practitioners to develop their interactions with young children to support language development. The systematic process of searching and selecting literature is outlined. Six papers with varying research designs were selected and synthesised using a Thematic Synthesis approach. Five descriptive themes contributed to two analytical themes: Impact of the Professional Development programme and Supporting Change. The first analytical theme suggests that the professional development programmes resulted in positive outcomes that include participants improving their interaction skills and feeling greater levels of confidence and satisfaction in relation to their use of language enhancing strategies during interactions with young children. The second analytical theme suggests specific features of professional development programmes that might lead to positive outcomes. These features include the use of professional development activities (such as the use of video reflection) that support the development of self-awareness, time related factors such as duration and intensity of intervention, and the quality of relationships between programme leaders and participants. The interconnected nature of the factors involved such as the specific professional development activities, context and individual differences are

discussed. Implications for school leaders and Educational Psychologists are considered.

1.1 Introduction and Rationale for the Review

The focus of this review is to explore how engaging in professional development (PD) programmes might enable early years (EY) practitioners to develop their interactions with young children to support language development. The following sections provide a rationale for this focus.

1.1.1 Why is Language Important?

Literature highlights the importance of children's oral language skills and suggests that language underpins other aspects of development such as early literacy (Snow et al., 2014), reading comprehension (Dickinson & Porche, 2011; Storch & Whitehurst, 2002), academic achievement (Spencer et al., 2017), and psychosocial development (Levickis et al., 2017; Schoon et al., 2010). The importance of language development is also recognised in government policy and guidance such as Early Years Foundation Stage Statutory Guidance (Department for Education, 2021) and the National Curriculum (Department for Education, 2014). Therefore, this area is of interest to educational psychologists (EPs) who have a role in supporting language development through their work in relation to individual children and young people and wider school systems (Vivash et al., 2018).

1.1.2 Adult-child Interaction and Language Development

Language development is complex and theoretical explanations of children's language acquisition vary (Ambridge & Lieven, 2011; Chomsky, 1965; Gleason & Ratner, 2022). Behavioural approaches suggest language acquisition is associated with training, imitation and reinforcement (Osgood, 1953; Skinner, 1957). Linguistic theories emphasise the importance of the grammatical structure of language in the process of acquisition (Chomsky, 1965; McNeil, 1970). Social Interactionist theories (Bruner, 1978; Vygotsky, 1978), suggest that "language emerges from the interplay between children's linguistic and cognitive capabilities and the social language

environment" (Gleason & Ratner 2022, p.233). Both biological predispositions and environmental influences are acknowledged, with a strong emphasis on the importance of the social context. Social interactionist theory proposes that caregivers can play a crucial role in supporting language development by providing a rich linguistic environment that is characterised by abundant and varied vocabulary, and fosters language development through meaningful interactions (Tomasello, 2005; Vygotsky, 1978; Weizman & Snow, 2001). The importance of caregivers responsiveness to communicative attempts during interaction is emphasised (Snow, 1977; Tamis-LeMonda et al., 2014).

More recent research continues to support the perspective of social interactionist theory, suggesting language acquisition occurs within a rich social context, supported by high quality adult-child interaction (Donnelly & Kidd, 2021; Hirsh-Pasek et al., 2015; Tomasello, 2019). The importance of high-quality interaction is explicitly referenced in past and current government publications (Bercow, 2008; Department for Children School and Families, 2008; Department for Education, 2021). There is clear rationale based on research evidence for prioritising adult-child interaction in EY as a means of supporting children's language development.

1.1.3 What is Quality Interaction?

There is a range of perspectives on how high-quality adult-child interaction supports language development. Earlier studies highlighted the importance of the quantity of words to which a child is exposed and its impact on vocabulary growth (Hart & Risley, 1995; Hoff, 2006; Huttenlocher et al., 2002). Later studies however have emphasised the quality of the linguistic input and which aspects of interaction contribute to language development. Some studies focus on one aspect of interaction such as questioning (Davis & Torr, 2016; Degotardi et al., 2018; Houen et al., 2016), wait-time (Ingram & Elliott, 2014; Maroni, 2011), and context (Degotardi et al., 2016; Mascareno et al., 2017). Other researchers have explored the multiple dimensions involved in a quality interaction including the importance of utilising and encouraging both verbal and non-verbal responses (White et al., 2015), and the potential benefits of using several responsive strategies, defined as "strategies to

promote children's participation in extended conversational exchanges" (Piasta et al., 2012 p.387), such as looking expectantly and repeating words or phrases.

Based on research findings, a variety of tools and standardised observational systems have been developed to support the audit and evaluation of interactional quality as a component of the language environment (Appendix A provides an indicative selection of tools). There appears to be some consensus among those developing these tools that the language environment should provide opportunities for children to be regularly involved in conversation and interactional strategies should be used to encourage, facilitate and model talk by, for example, allowing the child to lead, commenting on play and using non-verbal responses. Some tools such as the Communication Supporting Classroom Observation Tool (CSCOT, Dockrell et al., 2012) are intended to go beyond audit, and can be used as part of an assess, plan, do, review cycle of improvement (Law et al., 2019). These tools, which suggest what adults might do when interacting with children to support the development of language, could inform (PD) programmes supporting the practice of those working with children in education and childcare contexts.

1.1.4 Supporting the Development of Adult-child Interaction

Some evidence suggests that engaging in PD programmes can lead to changes in the ways adults interact with young children in order to support their language development (Cabell et al., 2015; Mashburn et al., 2008; Piasta et al., 2012). Some published programmes such as Learning Language and Loving it ™ (LLLI) (Weitzman, 1994) have been found to be effective in improving educators' use of language enhancing strategies (Flowers et al., 2007; Girolametto et al., 2006). While the findings suggest that these programmes may be promising in terms of positive impact on practitioners use of language enhancing strategies, it is difficult to draw conclusions about which particular elements of such programmes support changes in practice (Egert et al., 2020; Schachter, 2015). Further, Piasta et al., (2012) highlighted that some programmes such as LLLI™ can require a commitment of time and resources that limit their accessibility for some settings.

Law et al., (2019) found that when teachers using the CSCOT discussed intended changes to language supporting practices, they talked less about changes to their interaction behaviour than changes in other areas such as the environment and the timetable. The reasons for this are not well understood but may suggest that developing the use of language enhancing interaction strategies might be more challenging than changing other aspects of the learning environment (Fukkink & Lont, 2007; Markussen-Brown et al., 2017).

Wider PD literature acknowledges the challenges of transferring new knowledge and skills into practice and sustaining changes in the real-life contexts (Chidley & Stringer, 2020; Fixsen et al., 2009; Schoeb et al., 2021). Some researchers conclude that there is a need to further research the processes involved in PD and creating practice change (Schachter, 2015; Sheridan et al., 2009; Sims et al., 2021a) and in the context of this review how PD programmes might support adults to make changes to their interactions with young children (Egert et al., 2020; Piasta et al., 2012). Synthesising the findings of several PD programmes that aim to develop interactions could create new understandings in this area.

1.1.5 Review Focus

The rationale provided suggests that developing high-quality adult-child interaction is important for language development but changing interaction practices may be difficult to achieve. This review therefore aims to explore any PD programme, intervention or approach specifically aimed at supporting the use of language enhancing interaction strategies during adult-child interactions. It will explore the following question.

What is known about professional development programmes aiming to develop high quality adult-child interactions to support language development in the early years?

1.2 Method

This review followed Petticrew and Roberts' (2008) (Table 1) seven stage process for a systematic literature review. This provides a structure for the subsequent sections of this report.

Table 1.1 Systematic Review Process. Petticrew and Roberts 2008.

<u>Stage</u>	Stage Description	
Number		Review Section
1	Clearly define the review question in	Introduction- Review Focus
	consultation with anticipated users.	
2	Determine the types of studies needed to	Method- Identifying the
	answer the questions.	papers
3	Carry out a comprehensive literature search to	Method- Identifying the
	locate these studies.	Papers
4	Screen the studies found using inclusion criteria	Method Identifying the
	to identify studies for in-depth review	papers
5	Describe the included studies to 'map' the field	Method-
	and critically appraise them for quality and	Mapping and Appraising
	relevance.	
6	Synthesise the studies and assess	Method-
	heterogeneity among the study findings	Mapping and Synthesising
		Findings/Discussion
7	Disseminate the findings of the review	Findings/Discussion

1.2.1 Stages 2 and 3: Identifying the Papers

Systematic reviews are positioned on a continuum between aggregative and configurative approaches (Gough et al., 2012). Aggregative approaches involve the process of combining data for the purpose of testing a theory or hypothesis. Configurative approaches are more suited to explaining or conceptualising an issue and can include diverse studies (Gough et al., 2012). This review question is exploratory rather than theory testing which would place it towards the configurative end of the continuum.

A comprehensive and systematic literature search was conducted (Nov 2021 to Feb 2022). The following databases were searched: British Education Index, ERIC, Scopus, Web of Science, Childhood and Adolescent Studies.

Search terms were based on the review question and were determined by full consideration of the terminology used within the literature (Table 1.2). The Boolean Phrase AND was added to ensure that the literature captured would address all three elements of the question; PD, interaction and language development.

Table 1.2 Search Terms

Population	Intervention		Outcome	Not
Teacher* OR educator or adult OR "education* professional" OR "practitioner" OR "teacher- child" OR "adult- child"	AND "Professional development" OR "In- service Training" OR "training"	AND interact* OR "interaction quality" OR interven* OR "interaction skills"	AND "language acquisition" or talk OR "language development" OR "oral language" OR conversation OR oracy OR communicat*	"multi- lingual" OR "bi-lingual" OR "English as an additional language"

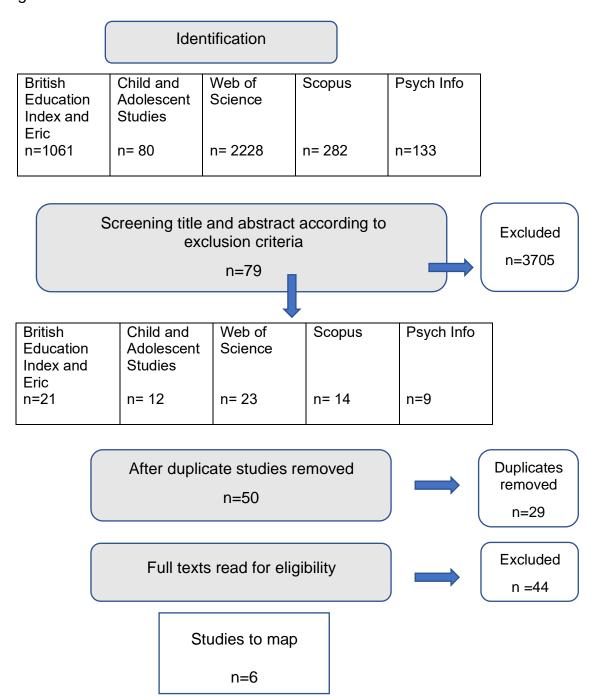
1.2.2 Stage 4: Screening the Studies

Due to the high number of initial returns, inclusion and exclusion criteria were developed. I used the common acronym PICO (Richardson et al., 1995) with the addition of context as suggested by Petticrew and Roberts (2008) (see Table 1.3).

Table 1.3 Inclusion and Exclusion Criteria

	Inclusion Criteria	Exclusion	Rationale
Population	Teachers or EY practitioners (or other parallel term) working with children in the EY 0-6.	Concerned with an exclusive population identified as having a defining characteristic, i.e. developmental language delay, bilingual, special educational needs (SEN).	Interactions with children with a defined characteristic (e.g. bilingual or SEN) as this may have required additional, different or more specialised interaction skills).
Intervention	 Any PD programme, intervention or approach that aims to develop child-adult interactions to support child language development. Must include details of the PD elements of the intervention. 	 Interventions aimed at supporting interaction for another reason e.g. wellbeing, behaviour management etc. Details of the PD programme, intervention or approach not specified. Interactions that were limited to a specific context (e.g. book reading, snack time). 	 To ensure relevance to review question. If the intervention had been limited to a specific context (e.g. book reading) the language supporting techniques may not have been generalisable to other contexts.
Outcome	 Must include reference to adult outcomes (either quantitative or qualitative) Must be focussed on a change to adult-child interaction (this could include quantitative or qualitative information) Any qualitative data included should be focussed upon the perspective of the practitioners/participants targeted by the PD programme, intervention, or approach. 	 Child focussed outcomes only. Related to another outcome such as change in practitioner knowledge. Focussed on experience of professional delivering the intervention. Perspectives of parents, or other professionals. 	To ensure relevance to the review question.
Context	EY education or care setting.	Home environment.Child minder's home.	To ensure consistency of context as relevant to the question
<u>Other</u>	 Published between 2015-2022 Jan Published in English Language 		Recency Accessibility
	Published &Peer- reviewed		Quality

Figure 1. Flowchart to Demonstrate the Searching Process and Results Yielded at Each Stage.



1.2.3 Stage 5: Mapping and Appraising the Research

To prepare for synthesis, mapping was used to organise and summarise the final papers. Sutcliff et al., (2017) suggest that mapping highlights similarities and differences between studies which can be important for understanding the generalisability and transferability of findings. Additionally, mapping can allow for the most appropriate method for synthesising the data to be identified.

In addition to the extraction of general data (Table 1.4a) for the purposes of clarity, it was important to extract additional data in relation to each PD programme (Table 1.4b). All programmes included the delivery of content aimed at supporting the development of practitioner knowledge and understanding (such as outlining language enhancing strategies). Most programmes also utilised at least one PD activity designed to support and monitor the development of practice (Table 1.4b).

Table 1.4a Map of the Key Features of Included Papers

Author and Year of Publication	Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
Context	Country- USA Intervention Setting- 4 Head Start (HS) centers. Children aged 3- 5 years.	Intervention Setting- A not-for-profit organisation offering childcare. Children aged 0-6. 4 centres were involved in the study.	Intervention Setting 2 EY settings with children aged 0-4 years	Intervention Setting 1.Foundation unit of a primary school. 2. Private day nursery.	Country- USA Intervention Setting University-affiliated early childhood center in a large city. Children aged 6 weeks-3 years.	Country- Australia Intervention Setting- Early childhood settings (located in lower socio-economic areas). Children aged 0- 5 years.
Participants	21 Head Start Teachers from 4 HS programs (12 lead teachers, 9 assistant teachers)	Early years educators (EYEs) 14 Females participated in focus groups. 2 female directors participated in semi-structured interviews	Early Years Educators (EYEs) from 8 settings. Total 28 Participants 23 staff and 5 managers.	Study 1 8 early childhood educators (ECEs) Study 2 7 ECEs	8 Early childhood teachers (only 7 completed all phases)	Study 1 42 ECEs Study 2 5 ECEs from study 1
Aims	To examine the effect of feedback type on facilitating pre-school teachers' use of language enhancement strategies (LES).	To address the question "what were the experiences of childcare educators and centre directors involved in a site based PD programme designed to support their practises with facilitating children's speech language and communication skill development?"	No clear aims stated but in summary this study reports on how using a PD programme, (Learning Language and Loving it™ (LLLI) led to an increased awareness of the cultural use of phatic questions. This was used as a catalyst for the	To assess the impact of a brief speech and language training course on ECEs interaction behaviour, and to explore ECEs views and experiences of the course.	To determine the efficacy of PD that included Bug in Ear (BIE) peer coaching on early childhood teachers' use of evidence-based strategies. This included: 1. How the PD increased frequency of strategy use 2. To what extent this was sustained post intervention. 3. The extent to which teachers perceived BIE	To explore the impact of the program on ECEs in the following areas: • Knowledge of the stages of language development and confidence in this knowledge. • Knowledge of strategies for promoting language development and confidence in this knowledge.

Author and Year of Publication	Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
			development of reflective practice and improved interaction skills.		peer coaching to be a socially valid form of PD.	 Reported use of strategies discussed in the programme. Actual use of strategies discussed in the programme.
Study Design	Quantitative Experimental randomised control trial.	Qualitative	Qualitative	Study 1 Quantitative Within participants multiple baseline design Study 2 Qualitative	Quantitative Multiple- baseline, single case design	Study 1 Mixed Methods Study 2 Quantitative Within participants design
Overview of PD activities	 Access to 7 online modules (10 mins each). 5 modules detailed the language enhancing strategies and 2 modules address self-monitoring processes. They continued access to all modules. Teachers submitted an online weekly "I Will" form and a 10 min 	A series of activities designed by speech and language therapist (SLT) and were delivered via co-teaching with both the SLT and EYEs as highlighted in the stages below. Cycle of Activity 1. Activity conceptualisation 2. Individual activity planning by SLT. 3. Individual teaching by SLTs. 4. Co-planning, revision and discussion. 5. Co-teaching.	7 Group Sessions each 2.5 hours including time for discussion. 4 onsite coaching sessions per participant (interactions were video recorded and participants reflected upon the recording/receive d feedback).	 Study 1 3 Group Training Sessions. Each session lasted 3 hours. Delivered fortnightly. Review of video feedback with trainer and peer group to give opportunity for self-reflection and goal setting. Study 2 These participants had taken part in a previous 'Lets Interact Course' with a different trainer. No specific details of this course are given but it is 	 90mins training based on: 1. Importance of communication. 2. Communication strategies. 3. Coaching strategies. 5-7 weeks of BIE coaching. Each dyad has 5 or 6 coaching sessions across 3 weeks (Twice a week) 10mins receiving and 10mins delivering coaching. Weekly reflections. Beginning in week 2. (co-teacher dyad and first researchers met to reflect on experiences). 	Study 1 and 2 Attending an in-service training which was delivered in 2, 3.5 hour sessions. Sessions were conducted one week apart.

Author and Year of Publication	Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
	video of their instruction.	6. Discussion on completion.		presumed follow the same format as above.		
Outcome Measure Data Collection and Analysis	Comparison of 2 conditions. Self-report and Performance feedback. Regardless of condition, teacher recorded themselves during activities at pre-test, post-test and follow-up and video was analysed. Frequency count of teachers' use of language enhancing strategies (LES) based on Girolametto & Weitzman (2002). Analysed using hierarchical linear modelling. Online social validity survey on completion	Data collection from 3 focus groups (with participants), semistructured interviews (with 2 female directors of the organisation). These were recorded and transcribed using an inductive thematic approach (Braun & Clarke, 2006). Observations of 2 participants and their interaction with children in their care were recorded using the methodology of Girolametto et. al., (2003) and used for triangulation of themes only. It is suggested that observational data gave validation and credibility to the qualitative data as it confirmed the presence/absence of expressed experiences in	Qualitative data collected post programme. Data sources were compiled from: audio recordings of each session, action plans, feedback forms, videos of interactions, reflective journal by the programme leader completed following each video session. There are no details regarding data analysis methods.	Study 1 Participants recorded video of themselves during a group interaction taken before the first training course. Further recording after first and second group sessions. Conversational Responsiveness Assessment and Fidelity Tool (CRAFT) used to analyse video and measure outcomes. Study 2 Semi-Structured interviews. Template analysis used to identify key themes.	Quant Researchers video recorded teachers providing instruction in their classroom. Each video lasted 10mins and was coded. This was done at 4 points: baseline, intervention, fading and maintenance. Visual analysis procedures were used to analyse data (Horner et al., 2005, Krotochwill et al 2013). Semi Structured Interviews are referenced to explore Social Validity (teacher's personal evaluations of BIE peer coaching. There is lack of detail in relation to data collection and analysis. This data is summarised numerically.	Study 1 Questionnaire Quant- Wilcoxon signed ranks used for significance between pre and post responses. Qual- Content analysis (Graneheim and Lundman 2004) used to analyse responses to open-ended questions. Study 2 Quant The Teacher Interaction and Language Rating Scale (TILRS; Girolametto et al., 2000) used to analyse the pre- and post-program video recordings. Wilcoxon signed ranks test to test for pre- and post-program differences.

Author and Year of Publication	Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
	(quantitative analysis percentages)	relation to relationships and translating knowledge into practice.				(Video was used as a measure of change only and not as a reflective tool).
Summary of Findings	The use of language enhancing strategies increased overall from pre-test to post-test. No statistically significant group differences between conditions. Social validity Most participants said they would recommend this PD to other teachers (85.71%) Most participants either agreed or strongly agreed that they had benefitted from the	4 themes were identified as important. 1. Communication Effective communication between SLT and educators was integral to the success of the PD programme and its impact on their practice. 2. Relationships Relationships between SLT and educators were important to the success of the embedded programme. 3. Environment The embedded design meant that it was necessary for SLT took become familiar with the environment.	 Participants reported an increased awareness about how to use child-oriented strategies. Participants reported increased awareness of the skills of others and themselves. Participants recognised the frequency and impact of phatic questions which were suggested to potentially inhibit conversation. A focussed 'no-questions week' whereby staff refrained from questioning children was suggested to be useful. 	 Study 1 Statistically significant increase in ECEs use of 2 communication facilitating strategies ("uses comments to cue another turn" and "looks warm and expectant". No significant increase in 2 other communication facilitating strategies. No increase in language modelling strategies. Statistically significant decrease in 1 conversation hindering behaviour. There were individual differences in the extent to which participants changed their interaction behaviours. All participants reported an increase in confidence in using the strategies following training. 	 All Dyads had increased use of strategies based on their baseline scores. Moderate evidence that the PD increased teacher dyads use of strategies. There was variability in improvements made by individuals and dyads and at all time points (one dyad did not improve in any strategies). All dyads reported some challenges with BIE peer coaching. All participants thought it was an acceptable form of PD. All teachers perceived that BIE coaching improved their ability to use the taught strategies. Participants were willing to use BIE again and recommend it to teachers and families. 	Study 1 All respondents felt they had changed the way they interacted with children as a result of participating in the programme. Nearly all ECEs reported that the programme was very useful (97.6%). Relevance and practical application reported best aspect of the programme. All ECEs who responded said that they said they would recommend the programme. Study 2 Comparison of pre/post video ratings did not show a statistically significant difference on the 11 domains of the TIIRLS.

Author Ascetta (2019) Publication	et al., (2017)	Hayes and Rooney (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
online modules • Most re liking the online g setting.	practice Changes in	 The intervention had implications for future curriculum planning. Highlighted positive effects of child-led interactions. 	5 Themes Identified 1. All 7 ECEs reported that they had learnt and used communication facilitating strategies. 2. Using new interaction strategies has increased some children's participation in conversation. 3. The interactive and practical style of the training session was valued. 4. Video feedback was stressful and difficult but ECEs considered it to be a powerful learning tool. 5. It would be useful to have a refresher training session to follow up the course.		Increase in 7 out of the 11 (greatest in 'wait and listen' which was marginally significant). Increase in 7 out of the 11 content of the 12 content of the 13 content of the

Table 1.4b Design of the Professional Development Programmes

		Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney, (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
General Programme Details	Name of the PD programme	Bespoke programme Online modules detailing 5 language enhancing strategies (LES)	Bespoke programme Language facilitation and modelling techniques used were based on methodology of Girolametto et al., (2003).	Learning Language and Loving it™ (LLLI) linked to Aistear, Ireland's Early Childhood Curriculum Framework (National Council for Curriculum Assessment, 2009).	Study 1 'Let's Interact' (briefer version of Hanan Programme LLLI). Study 2 All participants had previously completed the "Let's Interact Training" course with different trainers.	Bespoke programme. Included 6 evidence-based communication strategies outlined as the focus content.	Study 1 and 2 Hanen Teacher Talk Programme (The Hanen Centre 2011).
	Contact Hours and Duration	All teachers given 2 weeks to watch all 7 online learning modules (approx. 70 minutes in total) Intervention varied from 4-6 weeks due to absence.	2 days a week for 8 weeks.	7 group sessions with opportunity for new learning and discussion. Each session 2.5 hours 4 onsite coaching sessions per participant.	3 group training sessions each lasting 3 hours were delivered fortnightly.	90 Minute training session. Between 5 and 7 weeks of BIE peer coaching. Fading period of 3-4 weeks	2, 3.5 Hour Sessions One week apart
Ge	Delivered by	Researchers - all with a background in education.	Speech and language students (tin the third or penultimate year of their degree).	Hanen-certified speech and language therapist supported by the EY programme manager.	LLLI accredited speech and language therapist and an EY specialist teacher.	Researchers. Followed by peer coaching.	Speech and language pathologist

			Ascetta et al.	, (2019)	Brebner et al., (2017)	Hayes and Rooney, (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
			Condition 1	Condition 2		X	X	X	X
Professional Development Activities	Training X (Online) Co-teaching Goal setting X			X (Online)					
				Cycles of co-planning and co-teaching					
			Х	Х	Х	Х	X (as part of group session)		
elopme	Coaching	General			X As part of co-teaching	Х	(as part of group session)		
Deve		Bug-in- Ear						X (peer coaching)	
sional		Feedback	X Via Email	X Via Email		Х	X (as part of group session)	W St	
Profes	Refl	ection	X As part of self- monitoring	X As part of self- monitoring	X As part of co-teaching	Х	X (as part of group session)		
	Vide	eo	X Used by participant for self-monitoring	X Analysed for feedback		Х	X (as part of group session)		

1.2.4 Quality Appraisal - Weight of Evidence

Studies included a range of designs which has implications for the application of a quality appraisal approach (Heyvaert et al., 2017). All papers were assessed using the EPPI-Centre Weight of Evidence tool (Gough, 2007) aligned with the TAPUPUS framework (Pawson et al., 2003) allowing for consideration of ethical issues. Additionally, for papers using a mixed methods approach, the Mixed Method Appraisal Tool (MMAT) (Hong et al., 2018) was also used to support the consideration of the integration of the quantitative and qualitative approaches. The assessment process involved systematically examining papers to understand the quality and relevance to the SLR focus. (Table 1.5 summarises the judgements made and Appendix C provides a sample of the appraisal process).

Exclusion of studies on the basis of quality has been debated (Dixon-Woods et al., 2004; Heyvaert et al., 2017). Despite the low methodological quality of one paper (Hayes & Rooney, 2019) it has been retained due to its relevance to the SLR question. The purpose of the appraisal process was to provide transparency about methodological quality of the included papers and therefore trustworthiness. The quality of each paper and its contribution the synthesis should be considered.

Table 1.5 Weight of Evidence

	Paper 1 Ascetta et al., (2019)	Paper 2 Brebner et al., (2017)	Paper 3 Hayes and Rooney, (2019)	Paper 4 McDonald et al., (2015)	Paper 5 Ottley et al., (2017)	Paper 6 Scarinci et al., (2015)
WoE A	Medium	Medium/High	Low	High/Medium	Medium/High	Medium/High
WoE B	Medium/High	Medium	Low/Medium	High	Medium	Medium
WoE C	Medium/High	Medium	Medium	High	Medium/High	Medium/High
WoE D	Medium/High	Medium	Low/Medium	High	Medium/High	Medium

1.3 Findings and Synthesis

1.3.1 Approach to Synthesis

Given the exploratory nature of the review question and the heterogenous nature of the papers included, a statistical method of analysis was not considered appropriate. An integrated approach was taken whereby qualitative and quantitative findings are considered simultaneously as several studies included both types of information (Stern et al., 2021). Thematic Synthesis (TS) is an approach which allows conclusions to be drawn on the basis of shared elements of heterogenous studies where there has been an element of transforming quantitative data to qualitative (Dixon-Woods et al., 2004).

TS involves three main steps: coding text, developing descriptive themes, and generating analytical themes (Thomas & Harden, 2008). This process began with using the programme NVIVO to support systematic coding of text on a line-by-line basis. Codes were generated inductively whereby generated codes were applied to subsequent papers and the process repeated several times to ensure consistency (Braun & Clarke, 2021). Any codes not deemed relevant to the research question were eliminated and the remaining codes grouped according to similarities and differences and merged as appropriate to create 12 final codes (Appendix D). These were then further explored and descriptive themes created to capture the meaning of grouped, similar codes. Five descriptive themes were created and the contribution of each paper to each descriptive theme is illustrated in Table 1.6.

Table 1.6 Studies Contributing to the Descriptive themes.

Descriptive Themes	Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
A change in the Interaction	V	√	V	√	V	√
A positive experience				√		
Increasing Self- Awareness		√		√	√	√
Time for Change	V	V	V	V	V	V
Quality of Relationships		V	V		V	

The final stage of theme development involved "going beyond" the content of the studies and creating new understandings in the form of two analytical themes (Thomas & Harden, 2008, p.7). This is an interpretive process, dependent upon the judgement and insights of the researcher (Braun & Clarke, 2021) (Figure 2).

Figure 2 Network of Final Codes, Descriptive and Analytical Themes **Final Codes Descriptive Themes Analytical Themes** Increased Strategy Use A Perceived Change A Change in the Impact of the PD Interaction Variability Between Participants Programme Sustaining the Change Feelings about the Intervention A Positive Experience **Increased Confidence** Benefits for Children **Increasing Self-Awareness Professional Development Activities** Supporting Time Time for Change Change Repetition/Revisiting Collaboration Quality of Relationships Communication

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1.4 Findings and Discussion

This section explores two analytical themes constructed through the TS process: Impact of the PD Programme and Supporting Change. These themes and their contributing descriptive themes are considered. Together they suggest that engaging in PD programmes *can* lead to positive change in practitioners' use of language enhancing strategies and that several factors might facilitate change.

1.4.1 Analytical Theme 1: Impact of the Professional Development Programme

This analytical theme is concerned with the impact of the PD programme. It focuses on practice change but goes beyond the interaction behaviour of adults, to include what the studies suggest are additional, but important benefits of participating in PD programmes such as participants feeling that it was a positive and worthwhile experience.

Two descriptive themes contributed to this analytical theme, and they are discussed in turn.

- 1. A Change in the Interaction
- 2. A Positive Experience

Descriptive Theme 1: A Change in the Interaction

All papers contributed to this theme referring to the impact of the intervention on the increased use of the language enhancing interaction strategies taught during each programme (Table 1.4a, Appendix B). The extent to which a change in interaction occurred varies both within and between studies and often according to the outcome measures used. This descriptive theme explores the finding that participants perceived that they had made changes to their use of language enhancing strategies through involvement in the programme, but this was not always reflected by the quantitative data.

All papers reported that participants perceived their skills had increased and they were applying the language enhancing strategies taught through the PD programme when interacting with young children. Perceptions about change were

gathered in various ways including summary of focus group discussions (Brebner et al., 2017), questionnaires/surveys (Scarinci et al., 2015; Ascetta et al., 2019), and semi-structured interviews (McDonald et al., 2015; Ottley et al., 2017).

Two papers presented little information about the basis on which participants had drawn the conclusion that their use of language enhancing strategies had increased when interacting with children (Ottley et al., 2017; Scarinci et al., 2015). However, four papers provided information suggesting participants' perceptions aligned with actual changes in strategy use (Ascetta et al., 2019; Brebner et al., 2017; Hayes & Rooney, 2019; McDonald et al., 2015). Three of these papers provided quotes from participants detailing their use of interaction strategies (Ascetta et al., 2019; Hayes & Rooney, 2019; McDonald et al., 2015).

"I waited for the children to speak. I also thought about counting to 10"

(Hayes & Rooney, 2019, p.714)

"I always make sure I step back and wait" (McDonald et al., 2015, p.316)

"I didn't realise how much I was rushing". (McDonald et al., 2015, p.318)

Brebner et al., (2017) suggested that observations of interactions verified what participants had said about their increased use of language enhancing strategies including an increased use of facial expressions and following children's interests. Such observations added credibility to participants perceptions of positive change within the interactions. However, the authors also acknowledged limitations of observational data such as, those participants who were observed volunteered to be included in the research and so may have been more confident in the use of strategies. Ascetta et al., (2019) suggests that self-reporting might be a useful approach for improving the use of interaction strategies as final video analysis suggested that the self-report condition led to similar level of changes in strategy use as the condition that included regular detailed analysis of video recorded interactions. The accuracy of the teachers' self-report data was not assessed at each stage, however the improvements seen in the final video analysis suggests a degree of accuracy in participants' self-assessment. Caution about the accuracy and reliability of self-report data has been referenced in wider literature (Howard, 1980; Prior, 2009; Short et al., 2009). Ascetta et al., (2019) suggest further

research with a larger sample to further explore the reliability of self-reporting. While the perception that strategy use increased through engaging in PD programmes, exploration of these perceptions was limited, and caution is needed about the extent to which perceptions represent real change.

Where studies used quantitative methods such as analysis of video footage to measure a change in the use of language enhancing interaction strategies, the findings were mixed (Ascetta et al., 2019; McDonald et al., 2015; Ottley et al., 2017; Scarinci et al., 2015). Results within some papers (Ascetta et al., 2019; Ottley et al., 2017; McDonald et al., 2015) suggested that there were improvements in the frequency of use of the taught strategies, but not always to a statistically significant level and improvements differed according to the specific strategy. For example, Scarinci et al., (2015) used the Teacher Interaction Rating Scale (Girolametto et al., 2000) to analyse pre and post programme observations and found no significant difference in the use of any of the 11 taught strategies but noted an *increase* in the use of 7 strategies, with the application of 'wait and listen' being described as marginally significant. Results of all four studies using quantitative measures suggested improvements were made although not always to a statistically significant level or across all strategies. This finding provides partial credibility to participants' perceptions that the use of some interaction strategies had increased to some extent.

Four papers (Ascetta et al., 2019; McDonald et al., 2015; Ottley et al., 2017; Scarinci et al., 2015) highlighted that the impact of the programme on strategy use varied *between* participants. This aspect was most referred to in relation to the extent to which quantitative outcome measures suggested interaction behaviour of individuals had changed. For example, McDonald et al., (2015) suggested that for one participant there was no change in the use of language enhancing interaction strategies and two participants only made changes in relation to reducing conversation hindering behaviours (such as using yes or no questions). However, the remaining five participants made gains in the use of more than one set of strategies (i.e. communication facilitating strategies, language modelling strategies and conversation hindering strategies). The difference in impact for individuals across the studies suggests that despite being exposed to the same

programme content and PD activities, individuals will have a different response and rate of change. Analysis by Ascetta et al., (2019) suggests that individual differences account for 18% of the variation in the use of language enhancing strategies. Ottley et al., (2017) suggested that there were multiple possible explanations for variability between participants and that this is an area that requires further research. The importance of trainee factors such as cognitive ability and motivation has been suggested to impact on the process of practice change (Baldwin et al., 2009; Blume et al., 2010).

Descriptive Theme 2: A Positive Experience

This descriptive theme goes beyond the acquisition of knowledge and skills and refers to practitioners' perceptions that participating in the PD programme was positive and worthwhile.

Positive feelings were mentioned in five papers, explored via both quantitative and qualitative data. These feelings were expressed in various ways including a willingness to recommend the programme to others, (Ottley et al., 2017; Scarinci et al., 2015), and an evaluation suggesting that the programme was an acceptable form of PD (Ascetta et al., 2019; Brebner et al., 2017; McDonald et al., 2015; Ottley et al., 2017; Scarinci et al., 2015).

Three studies referenced how participants felt increased confidence in relation to knowledge about the application of interaction strategies (Hayes & Rooney, 2019; McDonald et al., 2015; Scarinci et al., 2015), their understanding of general language development, (McDonald et al., 2015; Scarinci et al., 2015) and in supporting those with additional language needs (McDonald et al., 2015). This is consistent with other research suggesting that accessing PD can increase practitioners' confidence (Murphy et al., 2007; Peleman et al., 2018). Participants' perception of growth in knowledge and skill perhaps reflects practitioners' increasing levels of self-efficacy, their beliefs about their capacity to accomplish their goals.

"It has made me more confident...and has made me realise the importance of letting the child lead" (Hayes & Rooney, 2019 p.715)

Increasing confidence about abilities may be an important element of PD programmes, impacting positively on performance (Livet et al., 2022; Posnanski, 2002; Williams et al., 2014). Self-efficacy theory (Bandura, 1977) would suggest that the belief in ones capability to perform actions or attain goals, plays a crucial role in how tasks and challenges are approached. Increased confidence in abilities may have positive consequences that last beyond the scope of the intervention and participants may be more likely to engage in PD opportunities in the future (Tschannen-Moran et al., 1998; Zee & Koomen, 2016).

Synthesis also highlighted that participants' perceptions of children's responses during interactions was an important factor in how they experienced and evaluated PD programmes. Three studies suggested that practitioners felt changes to interaction behaviour had a positive impact on children in their settings including increased participation in conversations (McDonald et al., 2015), spending an increased time in the interaction (Hayes & Rooney, 2019) and an increase in vocabulary (Hayes & Rooney, 2019; Ottley et al., 2017).

"I was happy that my comments led to the children using new words" (Hayes & Rooney, 2019, p.714)

"with at least one child it was almost night and day ... I've realized he can be quite chatty" (McDonald et al., 2015, p.317)

As this review was not focussed on outcomes for children, these differences were perceived by participants rather than objectively measured. Whilst considered under the analytical theme of Outcomes, it is important to acknowledge that seeing a change in children was considered motivational for staff and could also be viewed as a factor supporting change. This finding is supported by wider research which suggests that the perceived utility or relevance of a PD programme may affect the extent to which people make changes to their behaviour (Burke & Hutchins, 2007).

Interestingly, participants reported a high level of satisfaction with the programmes even where quantitative results indicated no statistically significant change in the use of language enhancing interaction strategies (Scarinci et al., 2015; McDonald et al., 2015). This suggests that benefits of participation such as increased confidence and motivation which were not always captured by quantitative measures, were nonetheless important to participants, influencing their evaluation of the programme and its perceived utility.

1.4.2 Analytical Theme 2: Supporting Change

This analytical theme refers to those elements of the PD programmes that were perceived to be important to the success of the programme. Three descriptive themes contribute to this analytical theme:

- 3. Increasing Self-Awareness
- 4. Time for Change
- 5. Quality of Relationships

Descriptive Theme 3: Increasing Self-awareness through Professional Development Activities

The diversity of PD activities utilised in each programme is demonstrated in Table 1.4b. All studies referenced the contribution of the PD activities to the relative success of each programme and the subsequent change in interaction behaviour. The importance of approaches that facilitated increased self-awareness such as the use of video and coaching was prevalent within this theme.

Three studies (Ascetta et al., 2019; Hayes & Rooney, 2019; McDonald et al., 2015) used video recordings of practitioner's interactions with young children as a reflective tool that increased participants' awareness about the strategies they were applying during interactions. These studies suggested that video was a "powerful learning tool" (McDonald et al., 2015, p.317), allowing self-reflection and supporting future planning (Ascetta et al., 2019; Hayes & Rooney, 2019;

McDonald et al., 2015). Although video was not always seen to be a comfortable method, (Hayes & Rooney, 2019; McDonald et al., 2015) participants perceived it to be an important means of increasing self-awareness, compared to other methods. Some participants felt "even though the videoing is uncomfortable, I think actually looking at your own practice rather than watching other people or looking at a video or...., looking at it in a book, if it's actually you that's doing it, you can see what you need to be doing" (McDonald et al., 2015 p.317). Wider literature supports the suggestion that video reflection is an effective means for developing self-awareness and important tool for supporting practice change (Durand et al., 2016; Fukkink & Tavecchio, 2010; Steeg, 2016).

Five studies utilised coaching as a PD activity, although methods varied across studies (Tables 1.4a, 1.4b). For example, one study used peer-coaching delivered in the moment (Ottley et al., 2017) while another involved coaching as part of a group feedback session (McDonald et al., 2015). Wider literature suggests diverse understandings of coaching (Elek & Page, 2019; Schachter, 2015). Immediacy of coaching feedback was important in three studies (Brebner et al., 2017; McDonald et al., 2015; Ottley et al., 2017), although not consistent across all studies (Ascetta et al., 2019). It appears that coaching either in-the-moment or after the event, can support adults to make changes to their interaction practice, as indicated elsewhere (Basma & Savage, 2018; Desimone & Pak, 2017; Markussen-Brown et al., 2017; Moreno et al., 2015).

Whilst individual studies made claims about the effectiveness of the approaches used, the diverse and multi-faceted nature of the PD programmes used in these studies means it is difficult to draw causal conclusions about the contribution of any one PD activity or combination of activities. The findings from this review suggest that PD activities such as video reflection and coaching that support the development of self-awareness might be important for supporting practice change (Ascetta et al., 2019; Hayes & Rooney, 2019; McDonald et al., 2015; Ottley et al., 2017). This is supported by adult learning theories and PD research that suggest that reflecting on, and evaluating one's actions, is helpful when developing practice (Kolb, 1984; Peleman et al., 2018; Sims et al., 2021a).

Descriptive Theme 4: Time for Change

All papers contributed to this theme, suggesting time was an important factor in the development and refining of skills. Time was referenced in two ways: the duration of the intervention and the time required to explore and revisit strategies.

The duration and intensity of PD programmes varied between studies (Tables 1.4a, 1.4b). Ascetta et al., (2019) suggested that brief intervention (less than 1 hour a week over 4-6 weeks) can lead to increased use of language enhancing strategies, although this was not demonstrated at a statistically significant level. Alternatively, Brebner et al., (2017) found that despite a larger time commitment from instructors (two days a week for eight weeks), some participants suggested this was insufficient for change. Lack of clarity about the optimal amount of time required for PD to have a desired impact is acknowledged (Basma & Savage, 2018; Markussen-Brown et al., 2017). There is some indication within wider literature that more sustained duration or intensity can have a greater impact on teacher learning (Sancar et al., 2021; Wei et al., 2009). As programmes in the included papers were relatively short, (less than 7 weeks) an extended period of intervention may have led to a more developed or frequent use of interaction strategies.

It is possible that it is not just duration or intensity of the PD that makes a difference but what happens within that time. Participants in one study (McDonald et al., 2015) suggested repetition was important for embedding learning, as the use of the language enhancing strategies that were introduced first (communication facilitating strategies), were more developed than those introduced later (language modelling strategies). Participants referenced how regularly revisiting strategies meant that they were more likely to remember techniques such as observing, waiting and listening (referred to in LLLI as OWLing) "every week we talked about OWL-ing and, and I think the things that constantly came up are the things you remember" (McDonald et al., 2015 p.317). Participants in two studies indicated that follow-up sessions would be welcomed to consolidate learning (McDonald et al., 2015; Ottley et al., 2017). This may go beyond a desire for repetition and may reflect wider PD and adult learning

literature which emphasises the importance of opportunities to reflect following experiences of applying learning within real-world contexts (Chidley & Stringer, 2020; Kolb, 1984; Sims et al., 2021a). Wei et al. (2009) suggest that more sustained PD is perhaps more effective due to the increasing opportunities to apply learning in practice and engage in a process of reflection.

As the time factors, including opportunities for repetition of information varied considerably between studies it is difficult to draw conclusions about how the duration of the PD programme, the intensity of the involvement or frequency of opportunities to reflect on changes might have impacted on outcomes. Further research exploring interventions sustained over a longer duration, incorporating opportunities for application and reflection should be considered. Additional qualitative information might provide a greater understanding about the duration or intensity participants find most useful for practice change.

Descriptive Theme 5: Quality of Relationships

There was acknowledgement in three studies that relational elements might be important to practice change (Brebner et al., 2017; Hayes & Rooney, 2019; Ottley et al., 2017;). Two papers referenced the benefits of engaging in PD alongside colleagues. Ottley et al., (2017) suggested that peer coaching was preferred to trainer/trainee coaching models as it "minimized power differentials" that might otherwise be present (Ottley et al., 2017 p.227). Hayes and Rooney (2019) suggested participants felt that working with their colleagues was supportive. The benefits of experiencing PD alongside colleagues is reflected in wider research (Peleman et al., 2018; Rönnerman, 2003).

Brebner et al., (2017) highlighted that the relationship between Speech and Language Therapist (SLT) trainers and participants might be important particularly within an embedded approach whereby the trainer works alongside the practitioner in the setting for a period. Brebner et al., (2017) suggested that good communication, characterised by the regular sharing of information between participants and SLT trainers was essential. It is proposed that where this was

absent, there was less motivation to collaborate with trainers and this contributed to some participants not valuing aspects of the programme.

"I literally had to go up and say, 'I'm the group leader, I'd like to know what's going on"

"their final paperwork, I just don't see how that could have been positive and accurate...seeing as they weren't in the room very much" (Brebner et al., 2017 p.230-231).

This theme emphasises that relationships between trainers and participants, or between participants and their colleagues, can impact on participants perceptions of a PD programme.

1.5 Limitations of the Systematic Review

Several limitations are acknowledged. Generic search terms such as 'professional development' and 'training' were used when more specific terms such as coaching or modelling may have identified additional papers. I have endeavoured to provide a detailed audit trail of search methods to enable replication and extension of this review. Decisions made during the weight of evidence assessment process are acknowledged to have involved researcher judgement and others may have arrived at different conclusions.

The themes identified, and the interpretation during this process have been influenced by my own personal views. Solo researchers risk not considering alternative perspectives or interpretations which might be provided by a team of reviewers (Cahill, 2007).

1.6. Implications for Practice

This review suggests that engaging in PD programmes can have a positive impact on participants and their use of interaction strategies. Participants in all studies perceived they had improved use of language enhancing strategies and whilst there was some evidence that and increase had occurred, this was not always to a statistically significant level (Ascetta et al., 2019; McDonald et al., 2015; Ottley et al., 2017; Scarinci et al., 2015). This finding highlights a tension between participants' perceptions of their increased use of language enhancing interaction strategies, and the quantitative findings which suggested that changes were less pronounced. It also highlights debates in relation to ontology and epistemology and what types of data or evidence are privileged in research (Boylan & Demack, 2018; Fox, 2011; Lane & Corrie, 2007).

When seeking to understand the reasons for a discrepancy, none of the papers offered a clear explanation for this difference and there was little integration of qualitative and quantitative information even when mixed methods designs were employed (McDonald et al., 2015; Scarinci et al., 2015). One possible explanation is that the diversity of methods and tools used to measure outcomes, may have affected the degree to which the programmes were seen to make an impact on interaction behaviour. For example, the lack of statistically significant results in studies that used video analysis methods might be explained by difficulties with fidelity to recording procedures (McDonald et al., 2015) or changes to the recording context such as the activity or time of day (Ottley et al., 2017). Interactionist theories of language development would also suggest that meaningful interaction is a fluid, dynamic and reciprocal process, acknowledging the role of the child and their responses during interactions (Donnelly & Kidd, 2021; Strickland & Marinak, 2016; Vygotsky, 1978). Therefore, whilst adults may have developed their use of strategies more generally, their use of strategies might vary according to the particular context, or the response of the child. This suggests that reductionist methods such as video recording might not have captured small but important changes or changes that might have happened during a different interaction. Challenges related to tools and methods used to

measure change in interaction behaviour has been acknowledged and should be carefully considered by researchers (Pianta et al., 2008; Snow & Van Hemel, 2008; Wasik & Hindman, 2018) Utilising methods that evaluate the use of language enhancing strategies over a longer time period, in a greater number of contexts and with a range of methods might be preferable.

Whilst studies acknowledged the additional benefits of participating in PD, such as perceived increase in skill, increased confidence and feelings of satisfaction about the programme, there was relatively limited discussion about the comparative importance of these perceived outcomes alongside the lack of a statistically significant increase in the use of language enhancing interaction strategies. Considering the relative importance of outcomes perhaps leads to questions about the intended purpose of the PD, who's agenda engagement in the programme was addressing and who's objectives are considered to be most important. Comparing models of PD, Kennedy (2005) suggests that a transformative model of PD, which is built upon a clear understanding of the purpose of the PD and an explicit recognition of issues of power, is most likely to create sustainable change. Additionally, theories of adult learning suggest that establishing and obtaining personal goals and objectives is crucially important to the process of learning and development (Knowles, 1980; Kolb, 1984). Therefore, those devising PD interventions, should consider and value all possible outcomes including those that are most important to participants, in order to achieve changes that are desired by all parties and can be sustained beyond the intervention programme.

The second analytical theme, Supporting Change, suggested some factors that might facilitate the development of interaction skills such as allowing sufficient time for the ongoing refinement of skills, PD activities that increase self-awareness and the importance of relationships between trainers and participants. These findings appear to be reflective of Kolb's Theory of Experiential Learning which emphasises the importance of learning by experience and developing skills through the ongoing process of exploration and reflection (Kolb, 1984). Whilst the studies included in this review used a diverse range of PD approaches (Tables 1.4a, 1.4b, Appendix B), findings suggested that those programmes that led to

increased self-awareness were beneficial for learning. This review also suggested that the quality of relationships between learners and trainers is important to the success of a programme, reflecting Kolb's perspective that trainers should be positioned as facilitators of learning and learners should feeling valued and respected (Kolb & Kolb, 2005). Future research might explore how relationships between trainers and learners can support or hinder the process of change.

Only two studies referenced barriers to change including perceived strained relationships with trainers (Brebner et al., 2017) and a brief mention of technical difficulties associated with Bug-in-Ear coaching (Ottley et al., 2017). Future research should consider the identification of any potential barriers to practice change in the area of developing language enhancing interactions in the EY.

These findings have implications for Educational Psychologists, who might design and deliver PD programmes to support the development of adult-child interaction to support language development. This review demonstrates the complexity of practice change, and the importance of viewing the process of facilitating change holistically. PD programmes should not be viewed in isolation as part of a linear input-output, content driven process but rather considered in relation to context and those that engage in it more ecologically (Lefstein & Snell, 2013). It highlights the interplay between different aspects of PD including activities, timescales, and individual differences between participants. It is suggested that these variables might lead to a variety of outcomes which should be acknowledged and valued.

Future research might explore how a more flexible approach to PD which considers the desired outcomes for both trainers and learners might support practice development. Adopting a Theory of Change approach, which is defined as "a systematic and cumulative study of the links between activities, outcomes and the context of the initiative" (Fulbright-Anderson et al, 1998, p. 16) might be appropriate. This would allow for unanticipated changes or unexpected outcomes to be acknowledged and documented. Alternatively, within the literature, AR is proposed to be an appropriate framework for those who wish to work collaboratively with others to support the process of practice development and professional learning (McNiff, 2009; Reason & Bradbury, 2001).

1.7 Conclusion

This review explored what is known about PD programmes that aim to support language development in the EY. Reviewed papers featured heterogeneous programmes which differed in content, design and time scales. Two analytical themes were identified: Impact of the PD Programme and Supporting Change. The first suggests that engaging in PD can lead to some change in adults use of language enhancing interaction strategies and can have positive outcomes for participants such as feeling increased confidence about using such strategies. The second theme suggests some factors that might support practice change including time to develop skills, increased self-awareness and the quality of learner/trainer relationships. This review highlights some of the challenges associated with methods that might be used to measure and evaluate change. Furthermore, it suggests there are some tensions in relation to the kinds of evidence and outcomes that are privileged. Supporting the development of practice in the area of adult-child interaction should be viewed as a multi-faceted, dynamic process that requires an understanding of the importance of contextual and relational factors. Implications for further research are considered.

Chapter 2: Critical Consideration of Research Methodology and Ethics

2.1 Chapter Aims

This chapter will bridge my systematic literature review (SLR) to the empirical research and consider the rationale for the many methodological and ethical decisions that I have made when planning my empirical research. I will consider the findings of my SLR and outline my conceptual framework, reflecting upon how my philosophical positioning and my focus on ethicality have influenced this research.

2.2 Developing a Research Question - Bridge from Systematic Literature Review to Empirical

Through the SLR process (Chapter 1), two analytical themes were developed relating to what is known about professional development (PD) programmes that aim to support the development of adult-child interaction to support language development. The first analytical theme, 'Impact of the Programme', highlights the importance of how the outcomes are evaluated: while some quantitative results suggested little statistically significant impact, there was evidence of some improvement in use of language enhancing strategies, and further qualitative information suggested additional positive outcomes for participants such as increased confidence. The second analytical theme, 'Supporting Change', suggested there were a number of factors that might support change (i.e. time, relational approaches and the PD activities themselves). These factors should be considered in subsequent research.

The SLR highlighted that supporting the development of interaction through participation in PD programmes is a complex process, whereby the impact can vary depending on the measures used or the intended outcomes. This is reflected in PD literature that suggests that several factors and the interplay between them are important in the process of change, particularly in relation to turning knowledge into practice (Chidley & Stringer, 2020; Sims et al., 2021a). This led me to consider how PD in the form of Action Research (AR) an approach that

focusses upon the interconnected nature of knowledge and action (Kemmis et al., 2013) might support practitioners in the EY environment to develop their use of language enhancing strategies during their interactions with children. Drawing upon literature from early language development and PD, this research may provide information about the process of practice change and the factors that might facilitate or hinder such change in a specific context.

Therefore, the research question to be explored is:

How might an educational psychologist and early years practitioners work together to support learning and practice development in the area of language enhancing interactions in an early years setting? An action research inquiry.

In the following sections, I will critically consider the methodological decisions I have made and how these have been influenced by my personal experience, philosophical assumptions, and issues of ethicality.

2.3 Why Am I Doing This research? / Personal History and Motivations

It is suggested that researchers should be explicit about their motivations for carrying out research and acknowledge their subjectivity (Parker, 2004). My previous experience of working as an early years (EY) teacher has been important in developing the focus for this review as I understand the importance of supporting children to develop their language and communication skills. However, I also appreciate the complexity of the professional learning (PL) process, the tensions and opportunities this can create.

I have encountered numerous schemes and interventions that have been utilised both locally and nationally that aim to support aspects of language development, including Every Child a Talker (ECAT)(Department for Children School and Families, 2008), Boosting Language Auditory Skills and Talking (BLAST, n.d.),

and Nuffield Early Language Intervention (NELI, n.d.). There is an increasing desire in education for interventions to be evidence-based and have a measurable impact (Boylan & Demack, 2018; Hargreaves & Flutter, 2019; Slavin, 2020). This may be generated by an age of austerity and need for fiscally prudent investments. Throughout this time, I became increasingly aware of a tension in relation to the impact that interventions intended to improve practice might have upon wider practice. For example, I felt some interventions placed pressure upon my capacity to deliver a balanced curriculum and they were not always aligned with the principles and values that underpinned my practice such as fostering curiosity and supporting children's wellbeing. Such tensions and reservations about interventions can be exacerbated if teachers experience a lack of agency as changes are often implemented from the 'top-down', decided upon by school or even academy leaders, with little choice or opportunity for discussion with regards to the practicalities and implications of implementation (Priestley et al., 2015). Furthermore, a lack of clarity about purpose of change means that change is less likely to be sustained in everyday practice (Hayward et al., 2004) and can threaten teachers' sense of professionalism (Priestley et al., 2015). These issues resonated with my experience.

I recognise that my subjective experience of PD influences the ways in which I approach and engage in this research, leading me to prioritise ethicality, collaboration and agency when seeking to develop practice with EY practitioners. I want practitioners to have an active role within the PL process, allowing for a greater understanding of the factors that are important to them in their context. Therefore, I consider AR an approach consistent with my research purposes and my values.

2.4 Methodology

In the following sections I will outline the process of AR and discuss how it aligns with the purposes of the research, my philosophical assumptions and ethical principles.

2.4.1 How and Why in this Way?

Considering the question to be explored I believe it is appropriate to employ an AR approach, a qualitative method of inquiry, used to bring about change in a specific context (Koshy, 2009). AR is a cyclical process of planning, action and reflection which leads to new understandings about a situation and practices (Kemmis et al., 2013). It is through the process of inquiry that new understandings emerge (McNiff, 2013). It is a collaborative process whereby the researcher and participants plan and implement changes as part of a co-learning process (McIntyre, 2007).

AR proposes that knowledge is closely linked to context and "findings will emerge as action develops, but these are not conclusive or absolute" (Koshy et al., 2009, p.3). This is consistent with the aims of my empirical research which focus on working collaboratively to develop the use of language enhancing interaction strategies in a specific context. PL activities will be used to support the exploration and implementation of strategy use. This project emphasises the interconnected nature of theory and action creating living knowledge, that is valid for a particular context (Whitehead, 2017).

Often represented by cyclical diagrams, AR may appear to be a straightforward or procedural process. However, Robson and McCartan (2016) suggests that AR designs should remain flexible in order to respond to the dynamic nature of the research process. Additionally, experiencing the 'mess' of AR is crucial and should be viewed as a sign of quality, "creating depth and rigour in the participatory research process" (Cook 2009, p.289). Cook suggests that the messy area represents a level of disruption in the process whereby different perspectives lead to new insights and new ways of knowing. Therefore, this is a means for me to engage what Robson (2002) terms 'real-world research' and whilst AR frameworks will be used to guide the inquiry, there is an acknowledgement that AR can be "messy" and flexibility and reflexivity will be continuously applied in order to respond to the challenges, questions and perspectives that may arise.

2.4.2 Philosophical Stance

It is suggested that philosophical assumptions and the extent to which they contribute to and are consistent with the research should be articulated (Parker, 2004). In the process of planning this research I was drawn to consider Pragmatism as a suitable lens through which to approach my research and one which is compatible with AR. Whether Pragmatism constitutes an epistemological stance has been debated (Garrison, 1995). It is suggested by some as better understood as an approach or method than an epistemological stance (Briggs, 2019). Additionally, there are various interpretations of what might constitute Pragmatism (Biesta & Burbules, 2003).

My interpretation of Pragmatism is perhaps most influenced by Dewey (1929) who, alongside other pragmatists, emphasised the dynamic, ever changing nature of knowledge (Dewey, 1929; Vaesen, 2014). There is a strong emphasis on the importance of inquiry and action to generate solutions to everyday problems (Biesta, 2014; Rosiek, 2013). The dynamic relationship between knowledge and action means Pragmatism is particularly relevant for those who approach understanding and knowledge from a practical perspective (Biesta & Burbules, 2003). Pragmatism emphasises that knowledge is true if it contributes to better outcomes for those involved (Morgan, 2014). This fits with the research purpose of this project which focusses on changing practice within an organisation and thus has a transformational dimension (Cho & Trent, 2006).

Throughout this thesis I consider my axiology; how my values influence my approach and are embedded in the decision-making process (Killam, 2013; Schwartz et al., 2012). I aim to have coherence between my espoused values and my actions at all stages. I strive to be transparent about what I consider to be of value in the research process including the importance of ethical considerations and how they align with my chosen methodology.

2.4.3 Positioning of Data Collection and Analysis within the Research

My approach to data collection and analysis is underpinned by my philosophical position and an understanding that "pragmatic inquiry focuses on knowledge as the fallible and constantly revised product of experience" (Biddle & Schafft, 2015 p.323). What constitutes quality within qualitative research requires critical consideration of traditional concepts such as objectivity and reliability (Biddle & Schafft, 2015; Parker, 2004). Within this research I acknowledge and embrace the role of subjectivity and reflexivity and understand that my engagement with the data will be influenced by my experience both within and prior to the inquiry. I aim to be transparent about this. Traditional notions of reliability associated with consistency are not appropriate within an AR methodology where the aim is to create change over a period of time "an explicit attempt to make sure things do not stay the same" (Parker, 2004 p.98).

The knowledge produced through the AR is an embedded process whereby data generation and analysis is viewed as part of a continuing cycle of inquiry rather than a final task (Baumfield et al., 2008; Herr & Anderson, 2014). Data including field notes and reflective diary entries will be recorded at a variety of points throughout the inquiry to document the process of change and my reflexivity. Individual interviews will be analysed using Thematic Analysis (TA). I acknowledge that this will not capture all of the change within the research process but will lead to further understanding of the meaning and significance of social phenomena (Creswell & Poth, 2016). It is hoped that the insights provided will be useful to the participants and will be something that can be built upon in the future.

2.5 Ethicality in Research / Ethical considerations

The importance I place on ethicality is one of the fundamental reasons I view AR as an appropriate research methodology. Groundwater-Smith and Mockler (2007) discuss the inter-related nature of research, suggesting that ethics should not be viewed as a separate element but as an "orientation to research practice" (p.205), forming an integral part of the research. Furthermore, they suggest that the validity and quality in AR relies upon the enactment of ethical practice.

Throughout the planning and implementation of this research, I was guided by their ethical principles, and these were central to the decisions I made (Table 2.1).

Table 2.1 Presence of Ethicality. Based on Groundwater-Smith and Mockler (2007)

Ethical Principle	How was it present in my Empirical Research
That it should observe ethical protocols and procedures.	This research received full Ethical Approval from Newcastle University. Additionally ethical considerations are made with reference to the BPS Code of Human Research Ethics (Oates et al., 2021) and HCPC standards of conduct, performance and ethics (Health & Care Professions Council, 2018).
That it should be transparent in its processes.	Chapter 2 provides a rationale for the methodological and ethical decisions that were made. Throughout the research I endeavoured to be transparent with both the co-inquirers and the senior leadership in school about the aims of the research, advantages of participation and any potential costs. Written information was given to all co-inquirers (Appendix F).
That it should be collaborative in its nature	The research design was collaborative in nature (see discussions in Chapter 3). The importance of collaboration was emphasised at the outset and throughout the project. Examples of this collaboration are seen within decision-making process (Table 2.2) but also within the regular management of the project, for example establishing appropriate dates and times to meet with staff. Limits within collaboration existed particularly within the data-analysis phase.
That it should be transformative in its intent and action.	This research was transformative in its intent as we endeavoured not only to support practitioners to make changes to their practice in the area of adult-child interaction, but also to explore what kind of approaches might support the process of change. The reflective and exploratory approach allowed for new knowledge to be created about how the AR process might provide a framework for collaborative learning. Findings will be important for the coinquirers, school and Educational Psychologist who support PL and practice change through their work in schools.
That it should be able to justify itself to its community of practice.	The rationale for this empirical research and the methodological decisions made, is explicit in Chapters 2 and 3. The content of this project was seen to be relevant and appropriate by colleagues (Principal Educational Psychologist, EY Consultant and a senior Speech and Language Therapist) who confirmed the prioritisation of supporting early language needs within the local authority (LA). Additionally, the school involved had identified both language needs and PD as areas they were actively exploring.

2.5.1 Collaboration in Action

Throughout this project ethical tensions were considered and continually reassessed (Guillemin & Gillam, 2004). AR methodology is based upon principles of collaboration and participation (Koshy, 2009). However, collaboration is not one activity to be achieved, but an ongoing and evolving process requiring continual reflection (Bedwell et al., 2012). Although some forms of AR such as Participatory Action Research (PAR) aim to be truly democratic at all stages of the process (Baum et al., 2006) it is suggested that achieving an equitable process might be more complex in practice as power-dynamics are present in all positions and relationships (Ospina et al., 2004).

It was important that participation was voluntary and had not been coerced in any way. Collaborative discussions with senior leaders and practitioners about the aims of the project helped to avoid any potential pressure on practitioners to participate. Both written and verbal information was provided to ensure we received informed consent (Appendix F & G) and those involved were reminded throughout the project about their right to withdraw. Carr and Kemmis (2003) suggest that AR should lead to direct benefits for those involved and I hoped that participation in the project would lead to positive changes in interaction practices, and a deepened understanding about what might support PL in this context (Sachs, 2000).

Reason and Bradbury (2008) suggest that the AR process should open a communicative space where dialogue and development can flourish, emphasising the empowering aspects of the process. It is important that participants feel not only valued but also agentic; literature suggests that ownership of change and active involvement in the decision making process can lead to greater commitment to exploring and sustaining change (Hayward et al., 2004; Kennedy, 2011; Paechter, 1995). Those who chose to participate in this project will be referred to as co-inquirers, acknowledging their role as active agents in shaping the inquiry and generating knowledge throughout.

Sachs (2003) suggests that there must be consideration about the inherent hierarchical structures present in relation to the questions that are asked during research and whose interests they represent. Due to the practical challenges of

completing research as part of a doctoral programme it was necessary to make some key decisions including establishing interaction as an area of focus, and developing an initial research question, prior to meeting those who volunteered to be involved. However, during discussions with both school leaders and coinquirers, the proposed research question was explored, and it was felt that this question aligned with school priorities. Collaboration was active throughout the AR process, as co-inquirers were continually involved in establishing what issues were important, what content and methods might be explored and what questions might be asked.

Ethical consideration was given to the time commitment required from participants, and it was proposed that I complete data analysis and co-inquirers would have the opportunity to discuss themes as part of the inquiry process.

Table 2.2 Decision Making as Present in the Project

	Focus of the Inquiry	Question Formulation	Overall Approach AR	PD Activities	Focus Interaction Strategies	Contribution to Process	Data Analysis
Senior Staff	V	$\sqrt{}$			$\sqrt{}$		
(including 1 co-inquirer)							
Co-inquirers		V		V	V	V	
Me the researcher	V	V	V	V	V	√	√

2.5.2 My Position in the Research

The role of the researcher as insider/outsider is also one that should be considered in relation to power dynamics within AR (Hockey, 1993). Undertaking outsider research can raise ethical questions in relation to power imbalances (Willig, 2013). Utilising an AR approach with its collaborative principles, meant that my positioning would need to be continually reviewed as part of a reflexive process acknowledging shared involvement in the shaping of the inquiry. Indeed,

this position changed over time as relationships developed and participants began to gain a greater understanding of AR processes and their contribution to it. My experience perhaps reflects the perspective of McNess et al. (2015) who challenges the polarisation of 'insider' or 'outsider' roles, suggesting that a researcher's position is dynamic in response to context. Dwyer and Buckle (2009) suggest a "space between" which allows the "preservation of the complexity of similarities and differences" (p. 60) between researchers and co-inquirers. The positions occupied and the fluidity between is acknowledged and demonstrated in Table 2.3.

Table 2.3 Position as an insider, outsider and space-between

Insider	Space Between	Outsider
 As a former teacher who has worked within the EY I recognise that I might share some experiences with coinquirers. I am from the local area. 	 During conversations and interviews there was a recognition of shared experiences in relation to balancing the desire to engage in PL opportunities, alongside managing the demands of a busy work environment. Shared understanding of child development and the complexity of language development. 	 Not an employee within the school. I am known to work for the Educational Psychology Team within the local authority (LA). I hold a role as a Newcastle University Researcher as part of my academic course.

2.6 Conclusion

This project presents an opportunity to use an AR methodology to explore PL processes in a real-life context. This chapter has outlined the rationale and warrant for the methodological decisions made including my philosophical

positioning and the ethical considerations that have guided my work. Some of these issues will be further explored in Chapters 3 and 4.

Chapter 3: How might an educational psychologist and early years practitioners work together to support learning and practice development in the area of language enhancing interactions in an early years setting? An action research inquiry.

Abstract

Supporting young children's language development has been highlighted by Government as a key priority. Research suggests that high-quality interaction between adults and children is important for the development of language and suggests several ways in which adults might develop language enhancing interactions. However, professional development literature suggests that transferring new knowledge into practice might be challenging. This project aimed to explore how engaging in professional learning might support practitioners in the early years to make changes to their interactions with young children in order to support language development.

Utilising an action research approach I worked collaboratively with early years practitioners who learnt about several language-enhancing interaction strategies and applied them during their work with young children. Professional learning activities were used to support the implementation and evaluation of language strategy use. The intertwined nature of action and knowledge generation is emphasised. Interviews were Thematically Analysed, and themes provided a basis for discussions about future changes that might occur as an outcome of engaging in the action research process.

Findings suggest that in this context, engaging in an action research based professional learning project supported practice development. Utilising professional learning activities to support the implementation of language enhancing strategies was considered by co-inquirers to be beneficial, facilitating reflection on practice and dialogue between practitioners. It is argued that action research provided a flexible framework that responded to the interests and needs of the context. Features of action research including its principles of collaboration, its cyclical nature and the embedded opportunities for reflection are highlighted as supportive for practice change. Exploration of themes during the action research

process highlighted how the strengths and values of an organisation might support ongoing learning and development for practitioners. Barriers, and implications for practice are considered.

3.1 Introduction

3.1.1. Focus of the Research

This chapter reports on an action research (AR) project exploring how adults might be supported to develop language-enhancing interactions with children in the early years (EY). This report presents an account of the project as it developed and insights into what might be important for professional learning (PL) and practice change in this context.

3.1.2 Supporting Language Development Through High Quality Adult-Child Interaction

Language acquisition is supported by, and embedded within, the rich social context of interaction (Clark, 2018; Donnelly & Kidd, 2021; Girolametto et al., 2000). There are several tools that aim to identify those factors that would indicate if an interaction were to be deemed to be of high quality (Dockrell et al., 2012; Girolametto et al., 2000; Harms et al., 1998; Rowe & Snow, 2020) (see Appendix A). The strategies and terms identified both within these tools and within the wider literature vary. However, there is some consensus that language enhancing strategies which include language facilitation strategies (which extend children's participation in conversations), and language modelling strategies (which help children learn and use the rules of speech), can have a positive impact on the development of children's language (Cabell et al., 2015; Dockrell et al., 2012; Girolametto et al., 2003; Justice et al., 2018; Piasta et al., 2012; Weitzman, 1994).

3.1.3 Professional Development and Language Enhancing Interaction

There is some evidence that professional development (PD) programmes for adults working in EY settings, can support adults to develop interaction behaviours that encourage talk and ultimately support the development of children's language (Cabell et al., 2015; Fukkink & Tavecchio, 2010; Piasta et al., 2012). However, the findings of the systematic literature review (Chapter 1) and other literature suggests that such some PD programmes may not always lead to measurable change or changes that are statistically significant (McDonald et al., 2015; Scarinci et al., 2015). This may reflect what is commonly referred to in wider PD literature as the transfer problem: the challenge of transferring knowledge into action (Blume et al., 2010; Chidley & Stringer, 2020). There is a need to further understand what factors, conditions or approaches support or inhibit the process of transferring new knowledge into practice when supporting EY staff to use language enhancing strategies during interactions with young children.

The next section will consider what is known from the wider PD/PL literature before setting out the aims of the current study which explores PL in the context of supporting the development of language enhancing interactions in the EY.

3.1.4 Importance of Professional Development and Learning Opportunities in Education

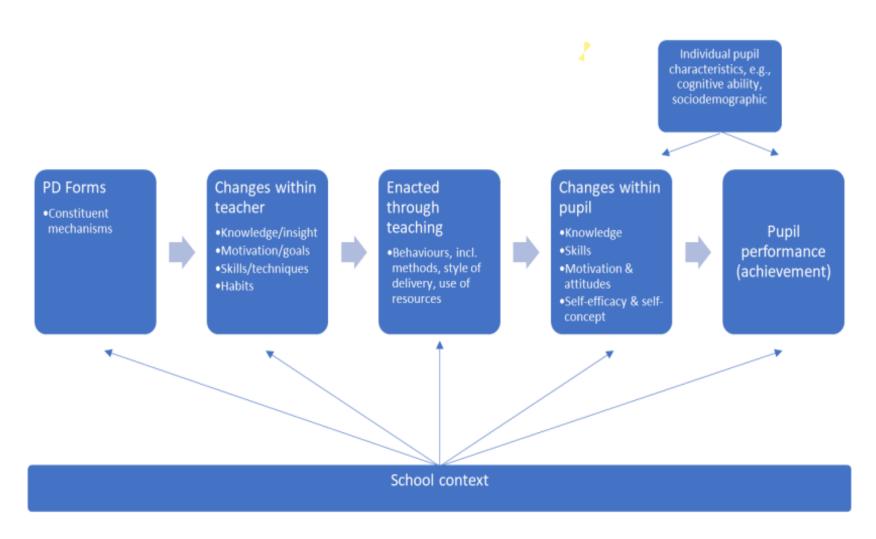
Teacher PD is commonly viewed as a means of improving teacher practice (Sims et al., 2021a). Research indicates that accessing high quality, continuing professional development (CPD) can have, benefits for teachers/practitioners such as increased self-efficacy (Nugent et al., 2016), increased knowledge (Kidd & Rowland, 2021) and benefits for students' learning outcomes (Basma & Savage, 2018; Fletcher-Wood & Zuccollo, 2020).

However, there is uncertainty regarding what might be considered effective PD and how this could be measured (Biesta, 2010; Opfer & Pedder, 2010). Some research suggests that effectiveness of teacher PD is ultimately determined by its

impact on children's outcomes (Boylan & Demack, 2018; Cordingley et al., 2015; Desimone, 2009). Various models have been proposed suggesting that PD which improves teaching quality should ultimately contribute to positive outcomes for children (Boylan & Demack, 2018; Kraft et al., 2018; Sims et al., 2021b).

Figure 3 An Example of a Model Demonstrating the Flow of Impact of Professional Development from Adults to Child Related Outcomes.

Logic model showing pathway from professional development interventions to pupil achievement. (Sims et al., 2021 p.12)



Models such as Figure 3 (Sims et al., 2021) suggest that without supporting adults to change their practice, PD will not have the intended benefits for children/young people (Chidley & Stringer, 2020; Sims et al., 2021a). This project therefore focuses upon how we might support adults to develop language enhancing interactions.

3.1.5 Conceptualising Professional Learning

Whilst CPD is often promoted as advantageous by professional organisations, government policy and research (Boeskens et al., 2020; Department for Education, 2016; National Education Union, 2024; Taylor et al., 2021), the concept remains somewhat ambiguous (Coffield, 2000; Friedman & Phillips, 2004; Opfer & Pedder, 2011; Webster-Wright, 2009). The perceived purpose, structure and organisation of CPD can vary and a number of frameworks by which to analyse approaches have been proposed (Bell & Gilbert, 2005; Fraser et al., 2007; Kennedy, 2005; Sims et al., 2021a). Kennedy proposes a typology of approaches to CPD ranging from top down, expert led transmission models to transformative models which provide greater levels of autonomy for participants (Table 3.1). Supporting the active involvement of those participating in the learning is indicated to be important in transforming practice.

Table 3.1 Types of Continuing Professional Development (adapted from Kennedy 2005)

Model of CPD	Brief Overview	Purpose of mo	del
The Training Model	Common form of CPD. Delivered by an "expert". A means of introducing knowledge.		
The Award-bearing Model	Awards views a mark of achievement or quality.	Transmission	
The Deficit Model	Designed to address a deficit in performance.		
The Cascade Model	An individual cascades knowledge gained through CPD to colleagues.		
The Standards-based Model	Conformity to a set of prescribed standards.		Increasing Capacity
The Coaching/Mentoring Model	A one-to-one relationship. Aims to develop the practice of both coresearchers.	Transitional	for Professional
The Community of Practice Model	Groups of people (more than two) working together to change practice. Mutually supportive.		Autonomy
The Action Research Model	Co-researchers as researchers. Acknowledging importance of context and improving practice within it.	Transformative	
The Transformative Model	Combination of processes and conditions that can support a change/transformative agenda.		

Webster-Wright (2009) suggests a distinction should be made between CPD and Continuing Professional Learning (CPL). It is proposed that the former is often associated with achieving competence, a progression from novice to expert (Murrell, 2001), a series of episodes with a definitive beginning and end (Wenger 1998), and often detached from authentic work experiences (Gravani, 2007) .This may be more reflective of a transmission purpose with some elements of the transitional elements of Kennedy's model.

Webster-Wright (2009) also advocates for the examination of the philosophical assumptions underpinning conceptualisations, rejecting objectivist perspectives which view knowledge as a transferable object ready to be acquired. Webster-Wright suggests that PL requires longer term engagement in a diverse range of

experiences and activities that support development and shape practice. Such conceptualisations avoid a dichotomy between formal learning and ongoing learning within the workplace. The present study draws upon conceptualisations assuming that CPL involves opportunities for self-directed learning that primarily serves the needs of the practitioners rather than those in positions of power within the organisations in which they work (Kennedy, 2005; Webster-Wright, 2009). Therefore, whilst the terms PD and PL are aften used interchangeably in the wider literature (Desimone, 2009; Kennedy, 2005), the term professional learning (PL) will be used in this project, emphasising the importance of collaboration and sections.

3.1.6 Creating a Professional Learning Experience- Key Insights

Several models and frameworks attempt to explain what supports the process of practice change (Boylan & Demack, 2018; Chidley & Stringer, 2020; Desimone, 2009; Ward et al., 2009). Some suggest that the process of practice change should involve establishing a clear link between theory and practice, (Bertram et al., 2015; Desimone, 2009). Reflection upon theory and its relevance to their specific practice context should allow practitioners to deepen their understanding of their practice and identify any gaps between principles and practices (Chidley & Stringer, 2020; Rönnerman, 2003). Other models highlight the importance of power issues in the PD/PL process, as professional autonomy and agency are viewed as essential for sustained transformational change (Hayward et al., 2004; Kennedy, 2005; Timperley et al., 2008; Ungar, 2015).

3.1.7 The Present Study

The aim of this research is to contribute to the understanding of how engaging in PL might support the development of practice in relation to developing adult's use of language enhancing interaction strategies. Approaching this through an AR design, the research process will take the form of cycles involving planning, action and reflection.

The following question will be explored:

How might an educational psychologist and early years practitioners work together to support learning and practice development in the area of language enhancing interactions in an early years setting? An action research inquiry.

3.2 Design

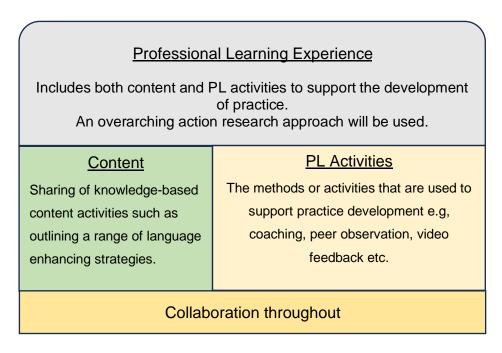
This research required a design allowing for the exploration of practice development in a real-life context and supporting the PL of the participating practitioners and myself. This was an AR project with the potential to be a catalyst for change in an area of practice (Denscombe, 2017; Reason & Bradbury, 2001). AR is a cyclical process exploring practice through the phases of planning, reflection and action which are clear and iterative (Kemmis, 2009). The practitioners who chose to participate will be referred to as co-inquirers, acknowledging their active role in shaping this inquiry-based project.

The co-inquirers were all experienced EY practitioners who engaged in a PL experience, provided by myself, which focussed on learning about language-enhancing interaction strategies and exploring the application of these strategies in practice. A research-based rationale for the importance of high-quality interaction in the development of children's language was provided and discussed throughout (Appendices L, M, N). The terms used to describe the strategies that might support language development during adult-child interaction vary within the literature (Law et al., 2017; Roberts & Kaiser, 2015). For the purposes of this study, the overarching, collective term, of language enhancing strategy was used to describe any interaction strategy that has been suggested to support language development. Additionally, more specific terms such as language facilitation strategies (which extend children's participation in conversations) and language modelling strategies (which help children learn and use the rules of speech) were used to describe subgroups of strategies with a similar purpose. The language enhancing strategies introduced in this project were evidence informed and drawn

from commonalities within the literature (Dockrell et al., 2012; Girolametto et al., 2000; Weitzman & Greenberg, 2002) (Appendix E).

Co-inquirers considered which language enhancing strategies would be most relevant to their context and each co-inquirer chose which strategy or strategies they wished to explore further. Additionally, they considered a range of PL activities (Table 3.6b) and each co-inquirer selected a PL activity they wished to utilise to support the exploration and implementation of language enhancing strategies in practice (Table 3.7). Figure 4 provides a visual summary of the composition of the PL experience.

Figure 4 Composition of the Professional Learning Experience.



The principle of collaboration is viewed as central to the AR process (Koshy, 2005) and important for creating and sustaining change (Bradbury, 2015) and therefore this was considered throughout the inquiry (see Chapter 2).

3.2.1 Co-inquirers and Their Context

The research was conducted in a primary school in North-East England, which has an EY care and learning provision (aged birth to 5). In this chapter staff will be referred to by pseudonyms to protect their identity. All co-inquirers are referred to

as practitioners as this term is commonly used in EY documentation. This would allow for all interested staff, regardless of their level of qualification, to be coinquirers. The use of the term practitioner should also reduce any power imbalances that might often be associated with roles and titles in school such as teacher, EY Lead and room leader.

Basic demographic information giving a brief over-view of co-inquirers' roles and experience was collected and collated. All co-inquirers were experienced EY practitioners (Table 3.2).

Table 3.2 Demographic Information from Co-inquirers.

Co-inquirer	1	2	3	4	5	6
Role in school	Room Leader	EY lead /Assistant Head	Care Practitioner	Room Leader	EY Practitioner	EY Practitioner
Time in current role	15+ years	1 year	1 year	4 years	18 years	15years+
Time working in EY care/education		13 years	28 years	10 years	18 years	15years+
Age of children in usual setting/room	3-4 years	3-4 years	0-2 years	2-3 years	2-3 years	0-2 years
Any previous speech and language training	No	Various training accessed in past.	No	I Can	Boosting Language Auditory Skills and Talking (BLAST) I Can Every Child a Talker (ECAT)	I Can
Any previous interaction training	2 years ago provided by LA EY consultant.	Talk Matters (LA provided training)	Included some in training below.	Talk Matters (LA provided training)	Elements included above	Talk Matters (LA provided training)
Any additional relevant information	n/a	Currently completing online Nuffield Early Language Training (NELI)	Participated in Durham Baby Room project 2016- 2019	n/a	n/a	n/a

3.2.2 My Position within the Research

I am a former teacher who has worked within the EY and within the LA area and I recognise that I might share some experiences with co-inquirers. However, I was not an employee within the school and I was known to work for the Educational Psychology Team within the LA. The fluidity of my role is acknowledged and perhaps best described as inhabiting the "space between", dynamic in response to the context (Dwyer & Buckle, 2009). The insider-outsider perspective is important in supporting new thinking and critical thinking within a more participative project.

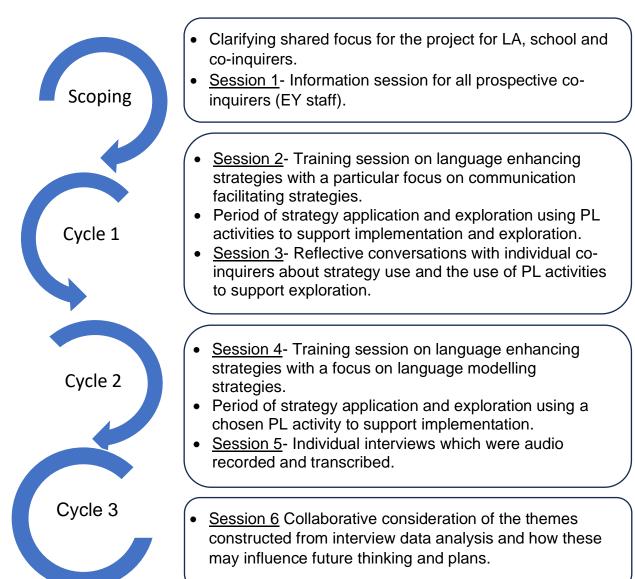
3.2.3 Ethics

This project was approved by Newcastle University Ethics committee and adhered to the BPS Human Research Ethics (Oates et al., 2021). Informed consent was obtained, and co-inquirers had the right to withdraw at any point before analysis (Appendix F and G).

3.3 The Research Process

3.3.1 Overview of the Cycles of Inquiry

Figure 5 Brief overview of the Phase of the Action Research Process



Whilst loosely framed around these phases, this project was not prescribed or linear but a responsive approach, whereby emerging developments shaped the direction of the research (Cook, 2009; Koshy, 2005; McNiff, 2013). It was

important to allow the process of AR to involve unexpected turns and a degree of messiness which may change the path of the research (Cook, 2009). For example, time scales were regularly adjusted to respond to staffing changes or illness. The importance of the collaborative approach outweighed the adherence to pre-prescribed stages or activities (Robson & McCartan, 2016).

3.3.2 Situating Data Generation and Analysis within the Action Research Process

The process of data generation and analysis was influenced by the understanding that knowledge produced during AR is embedded within the process (Baumfield et al., 2008). Therefore, numerous sources of data were considered during the cycles of the inquiry and a brief overview is provided below with further details in Tables 3.4, 3.5,3.8,and 3.11.

Table 3.3 Data Collection During the Action Research process.

Data sources	Purpose
Summary notes from reflective discussions with co-inquirers both individually and as a group at several points during the process (Appendix D).	Data was used to inform the subsequent action or the next steps in the process, such as establishing focus for the next session (Table 3.5 Cycle 1).
Researcher's reflective diary completed throughout.	To keep an account of activities, reasons for key decisions made and reflections on the process.
Individual semi-structured interviews which were situated within the penultimate phase of the inquiry, (Appendix K for questions). These interviews were audio recorded and transcribed at the end of Cycle 2. TA was used to explore the data from the interviews and themes were then considered in relation to the whole data set. Additional information about the TA process is discussed.	TA was used to support the ongoing process of the inquiry and consequently themes were collaboratively considered during cycle 3 of the inquiry (Table 3.12).
Notes from collaborative discussion with co-inquirers in relation to the generated themes (Cycle 3).	To understand co-inquirers' response to the themes and to consider implications for the future.

It is important to document the process of AR; what was done (and why) alongside any outcomes of the enquiry (Baumfield et al., 2008; McNiff, 2015). As such, this chapter is written to provide a transparent account of the process detailing the rationale for the decisions made, tensions arising in the process and new learning. Each cycle is recorded in a table providing an account of the activities undertaken, a brief rationale for the activities and details of the data collected (Tables 3.4, 3.5, 3.8, 3.11). Each table is followed by a textual account which adds further warrant for the decisions taken and explores some of the tensions present during the process. AR aims to produce knowledge from doing and to facilitate change (Reason & Bradbury, 2001). Therefore, the knowledge generated throughout the process of the inquiry will be discussed in subsequent sections of the chapter.

3.3.4 Scoping Phase -Relevance and Context

Table 3.4 Action Research Process - Scoping Phase

Phase	Focus	Activities	Rationale for the Activity	Data Collection
	Area Phase			
Scoping	Phase 1 Preparing and Planning June/July 2022	 Initial discussions with: 3 LA representatives: EY Consultant, Speech and Language Therapist, Principal Educational Psychologist. 3 setting representatives (0-5 EY Setting) representatives: Deputy Head, EY Leader and the EY Manager Discussions were focussed on the aims of the project which were to support learning and practice development in the area of language enhancing interactions in this EY setting. The project aligned with the LA, EYs strategic plan. Discussions with the school also covered their priorities for language development and practicalities such as time commitment. It was agreed that the project aims were in accordance with school development plans and values. 	Ensure relevance of the project for both the LA and the school in terms of development priorities and to reach a shared understanding about focus and aims. Establishing shared goals would be essential for the success of the project (Chidley & Stringer, 2020; Hayward et al., 2004).	Summary notes collected to explain how the project would align with the priorities of the LA and school.
	October 2022	Session 1- Initial Information Session-All EY Staff Session for all staff to learn about the project. Detailed Information was shared with all members of the EY Team including teaching staff and EY practitioners, during a staff meeting (36 attendees). (Appendix L) Information included a consideration of language development and how interaction makes an important contribution to this.	Transparency about the aims of the research project and process to allow informed decision making about participation. Opportunity for me to gather contextual information.	Summary notes collected. These notes included information about school challenges in relation to language, their procedures for supporting early language development and what their future priorities were.

Phase	Focus Area Phase	Activities	Rationale for the Activity	Data Collection
		 There was then an overview of the aims, methods, the AR process and more practical details such as time commitment and an invitation to take part in the research. Discussion about AR and underpinning principles of collaboration and participation. Opportunities to discuss and ask questions. Participant information and consent forms were distributed (Appendix F, G). Initially 7 co-inquirers volunteered to take part, but one later withdrew due to illness. 	Ensure alignment of staff/participant priorities with those of leaders and allow for incorporation into the project. Ensure informed consent.	This information informed my approach to the next training session, ensuring priorities were reflected.
		 Drawing upon several pieces of research, I proposed that the next training session should focus on learning about a set of language enhancing strategies that have been suggested by research to facilitate and extend interaction and conversations between adults and children (Dockrell et al., 2012; Girolametto et al., 2000). Whilst the terms used to describe such this group of strategies vary within the literature, the term communication facilitating strategies was used for the purposes of this project (Weitzman, 1994). 	Set priorities for the content of next training session.	
		During discussions, we identified several school priorities for language development and it was collaboratively agreed by all co-inquirers that focussing on language facilitation strategies in the next session would be appropriate. This would be in the form of training delivered by myself, outlining research findings in this area and exploring communication-facilitating strategies considering their application in the setting.		

Phase	Focus Area	Activities	Rationale for the Activity	Data Collection
	Phase			
		Discussion in relation to the AR approach and how the next few weeks would be structured; training about interaction strategies which would be followed by a period of action and exploration and then opportunities for reflection.		

3.3.5 Session 1- Information for All Early Years Staff

Establishing clear links between theory and practice is important for practice change (Bertram et al., 2015; Desimone 2009; Peleman et al., 2018;) and therefore from the outset I introduced some of the research findings about the importance of adult-child interaction in relation to language development. It is suggested that practitioners are more likely to be committed to a change if they can contribute to planning from the inception (Chidley & Stringer, 2020; Hayward et al., 2004) and this session allowed staff to consider which aspects of language development they wished to explore further.

Summary notes from the meeting highlighted that the team were particularly concerned about the reluctance of some children to engage in conversation and how the presence of adults sometimes affected their play.

"X and Y discussed how children often got up and left the area when they started to work with them. The group discussed possible reasons". Session summary notes- 12.10.22

Staff showed interest in the communication facilitation strategies that had been shared (Appendix L slide 12) and it was collectively decided that these aligned well with school priorities and would therefore be the focus for session 2 and cycle 1.

3.3.6 Cycle 1

Table 3.5 Action Research Process – Cycle 1

	Focus Area	Summary of Activities	Rationale	Data Collected and Purpose
Cycle 1	Preparing and Planning November 2022	Session 2- Training Session (1 hour) Focus- A) Language Facilitation Strategies B) Potential PL Activities Appendix M for relevant training session slides 5 Co-inquirers attended one of two sessions as it was not possible to release all staff at the same time (one participant was ill). A) Training in relation to Language Facilitating Strategies (strategies that are suggested to encourage children to engage in and sustain conversations (Girolametto & Weitzman, 2002; Weitzman, 1994). Training covered 6 strategies that had been introduced through discussion, analysis of video clips and related activities (Appendix M). B) Discussion about possible PL activities staff may utilise to explore strategy use. The options (Appendix M, Slide 11) included: -using video to record with the option for individual or group reflection - using still photographs (again as a stimulus for reflection) - paired work either peer observation or modelling - self-reporting (discussing the changes	Exploration of content- Focus on language facilitation strategies. Consideration of the range of strategies suggested to be important by research (Appendix E) and identified as an area of interest in session 1. To encourage discussion about strategies and how they might be applied in context. Research suggests that PL should establish clear links between theory and practice (Desimone, 2009; Peleman et al., 2018). PL activities proposed reflect research which suggests that approaches such as video, coaching, peer observation are supportive for the practice change (Durand et al., 2016; Kraft et al., 2018; Moreno et al., 2015; O'Leary, 2020)	Summary notes collected from each session. This information was predominantly about what strategies coinquirers were interested in and the PL activities they would engage in to support this. The purpose of this information was both to ensure accuracy of record keeping and to reflect key aspects of the discussion. Basic demographic information was collected about each participant to detail experience, training etc (see Table 3.2).
		A) Training in relation to Language Facilitating Strategies (strategies that are suggested to encourage children to engage in and sustain conversations (Girolametto & Weitzman, 2002; Weitzman, 1994). Training covered 6 strategies that had been introduced through discussion, analysis of video clips and related activities (Appendix M). B) Discussion about possible PL activities staff may utilise to explore strategy use. The options (Appendix M, Slide 11) included: -using video to record with the option for individual or group reflection - using still photographs (again as a stimulus for reflection) - paired work either peer observation or	how they might be applied in context. Research suggests that PL should establish clear links between theory and practice (Desimone, 2009; Peleman et al., 2018). PL activities proposed reflect research which suggests that approaches such as video, coaching, peer observation are supportive for the practice change (Durand et al., 2016; Kraft et al., 2018; Moreno et al., 2015; O'Leary,	purpose of this information was bot ensure accuracy of record keeping and reflect key aspects discussion. Basic demographic information was col about each participa detail experience, training etc (see Tal

Focus Area	Summary of Activities	Rationale	Data Collected and Purpose
Action	- coaching/researcher observation and reflective discussion. Planning- Co-inquirers to Decide on: 1. A chosen interaction strategy (See Table 6a for proposed menu) 2. PL activity to support the implementation of the strategy. Staff communicated this individual choice either in the session or at a later date via email (See Table 6b for proposed menu). Co-inquirers discussed their potential next steps. First Period of Staff Exploration • Staff implemented chosen interaction	Allow co-inquirers autonomy in relation to strategies and PL activities in line with principles of collaborative decision making. An opportunity for co-inquirers to consider why they would like to explore particular strategies. Why this strategy as opposed to others. Staff were given time to explore strategies utilising the PL activities to support the	
Nov/Dec 2022	 strategy in the setting over a period of 4/5 weeks. Strategies were applied during interactions with children as frequently as possible. Staff to explore use of chosen PL activity e.g. video, peer observation, self-reporting etc. This would be used at least once during the exploration period, more frequently if possible. Support with PL strategy as requested, emails, check in etc. See table 3.7 for coinquirers individual choices. 	implementation of strategies, noticing when changes might have happened.	

Focus Area	Summary of Activities	Rationale	Data Collected and Purpose
Reflection	Session 3-Individual Reflective Conversations	An opportunity to reflect upon how practice had changed and in what ways.	Summary notes collected during individual conversations between
December 2022	Exploration with each co-inquirer about the particular PL activity and how this impacted on the specific interaction strategy they focussed upon. What has worked well, what has helped what has been a challenge? Most co-inquirers referenced the desire to have greater opportunities to work together and reflect as a group. This informed my approach to training sessions where I tried to ensure that all co-inquirers were able to be present.	An opportunity to consider the next steps as individuals and for the group.	myself and co-inquirers. These were presented to the group as a stimulus for discussed during session 4 (Appendix N Slide 4).
	Conversations also informed some of the content of session 4 i.e. ready to move towards language modelling strategies.		
Planning December 2022	Planning-What next? Discussion about whether co-inquirers might continue with same strategy or explore another. All co-inquirers chose to continue with the same strategy until session 4 (Cycle 2)	Agency in relation to decision making built into the process to increase ownership.	Summary notes in the form of bullet points.

Embedding choice about which language facilitating strategy and which PL activities co-inquirers would explore was important for several reasons. As discussed previously, principles related to collaboration and ethical working underpin the AR approach and such examples of shared decision-making demonstrate how these principles were present in this project. Additionally, agency and autonomy are often highlighted as important elements for transformational change (Kennedy, 2005; Timperley et al., 2008; Ungar, 2015). Hayward et al., (2004) suggest that employing a top-down approach, whereby leaders make decisions regarding innovations, may create some change but due to lack of collaboration, autonomy and agency, the practitioner will be less likely to attempt or sustain changes to practice in the classroom. Therefore, in order increase the possibility co-inquirers would be invested in the project and sustain any long-term changes, it was important that they should feel autonomous about any decisions made (Deci & Ryan, 2012).

Table 3.6a Potential Communication Facilitating Strategies

Language Enhancing Strateg	ies
Potential Communication	Description
Facilitating strategies	
Owl-ing (Observing waiting,	Observing- Watching the play carefully, joining the play quietly.
listening)	Waiting-Giving them additional time for the child to make initiations. Giving children extra time to respond
	to any comments, actions or events.
	Listening to the speaker, ensuring they don't interrupt.
Being face-to-face	Getting down to the child's level positioning yourself alongside during the interaction.
Joining in and playing	Playing alongside, allowing the child to lead, copying their play, following their direction and building on
	their interests.
Using verbal and non-verbal	Ensuring that you use a combination of facial expressions, body language and movement to reinforce
responses	communication.
Copying/mirroring (actions or	Doing what the child does. This could include copying actions, sounds, facial expressions, babbles or
words)	words used.
Commenting/Interpreting	Providing a commentary on what the child is doing or responding to what they are saying.
	Interpreting-providing a meaning for what the child is doing, trying to say.

Table 3.6b Potential Professional Learning Activities

Potential Professional Develop	Potential Professional Development Activities			
Video/audio recording	Video or audio recording of interactions followed by individual, paired or group reflection.			
interactions and reflection				
Still photographs	Using still photographs as focus for reflecting on the interaction			
Peer observation	Co-inquirers observing each other during interaction and then feeding back in relation to what they saw.			
Self-reporting	Keeping a diary or notes documenting what went well, during the interaction/ areas for development etc.			
Researcher observation and	Researcher observed practice and then discussed with each individual reflecting upon what strategies they saw			
discussion note this was not	being used. Discussion in relation to what practitioners wanted to explore in future interactions.			
originally offered but co-				
inquirers suggested they				
would like this as an option				

My initial intention was to focus on collaboratively agreed language facilitating strategies. However, individuals varied in the strategies they wanted to explore and in the PL activities they wished you use to support practice development.

Table 3.7 Co-inquirers' Choice of Communication Facilitating Strategy and Professional Learning Activity.

Focus Communication Facilitating Strategies (as described in table 3.6a, 3.6b) Note -Whilst co-inquirers chose one focus strategy they would have also incorporated others into their practice.	Number of Co-inquirers Exploring in this Way
Copying/mirroring (actions or words)	2
OWL-ing (Observing, waiting and listening)	2
Joining in and playing	2
Professional Learning Activity to Support the Development of Practice	
Peer observation	2
Video/Audio recording interactions and reflection	2
Researcher observation and discussion	2

Over the next few weeks co-inquirers explored the strategies in their setting using their chosen PL activity to support practice development. During individual reflective conversations, we discussed what was working well, what changes they had seen and potential next steps. It appeared that some co-inquirers had been able to make changes and explore strategy use in their context, often evidenced by records such as video recordings or reflective notes they had made. Although they had chosen to focus on one communication facilitating strategy, they often found they had used several strategies. For others, the changes were less pronounced, and co-inquirers shared that whilst they had engaged in some exploration, they perhaps hadn't had sufficient time to focus on developing strategy use in practice.

3.3.7 Cycle 2

Table 3.8 Action Research Process-Cycle 2

Focus Area Cycle 2	Summary of Activities	Rationale	Data Collected and Purpose
Reflection	Session 4- Training Session Language Enhancing Strategies– One hour, Co-inquirers only (Appendix N	Group discussion allowed for both individual and group reflection and problem	Notes were collected throughout the training
January 2023	for slides)	solving in relation to the use of their chosen language facilitation strategy. This was	session. This helped to identity what co-inquirers
	A) Group discussion/reflection	included as it had been highlighted during individual conversation that co-inquirers	were considering exploring next.
Preparing	B) New Training-Focus on Language Modelling Strategies	wanted greater opportunities for discussion with each other. This provides opportunity	
and Planning		to develop new perspectives through interthinking (Littleton & Mercer, 2013).	
	 A) Group Discussion/Reflection on Cycle 1 Sharing of collated information from individual reflective conversations (Appendix N Slide 4). Group discussion about the use of their chosen strategy (from cycle 1) including changes they had made so far. 	This session was intended to stimulate thinking about what was working well and how we might overcome any problems prior to a second period of staff exploration.	
	 B) New Training Focus on Language Modelling Strategies (Appendix N). These are strategies that model appropriate use of language, supporting the development of features such as vocabulary and grammar. 	Research suggests that language modelling strategies are perhaps more difficult to integrate into an interaction (McDonald et al., 2015; Piasta et al., 2012). Therefore, limiting the number of strategies to 2, might lead to a deeper exploration within the timeframe.	
	 Whilst 5 language modelling strategies were introduced (Appendix N, Slide 7), the focus was primarily on expansion and extension techniques. Expansion techniques expand a child's utterance using adult grammar but do not add new information. 		

Focus Area Cycle 2	• • • • • • • • • • • • • • • • • • • •	Rationale	Data Collected and Purpose
January 2023	For example- child says "birdy fly" and the adult says "the bird is flying". - Extension techniques extend what the child is saying adding additional information. For example, the child say "birdy fly" and the adult replies "Yes the little bird flying in the sky" adding		
Preparing and	new information about the bird and the situation.		
Planning	Examples of each strategy were shared through a variety of activities. Activities included working in pair to discuss was of expanding and extending of children's phrases, watching video footage of a practitioner in another setting and identifying their use of expansion and extension techniques.	To give an opportunity to work through examples in relation to each strategy (expansion and extension).	
	 Discussion around PL activities and co-inquirers use of these. They considered whether they would like to continue with their chosen PL activity or try a new PL activity. Initial decision making in relation to next steps. 	To provide an opportunity to ask any questions.	
	 All co-inquirers decided they would continue to apply the language communication facilitation strategies they had previously learnt about in session 2 (Cycle 1) and additionally explore the use of extension and expansion (language modelling strategies) introduced in session 4 (Cycle 2). All co-inquirers decided they would continue to use the same PL activity as they had used previously. 		

Focus Area Cycle 2	Summary of Activities	Rationale	Data Collected and Purpose
Action January- Feb 2023	Second Period of Staff Exploration This exploration involved co-inquirers beginning to implement their chosen language modelling strategy. They utilised their chosen PL activity to support the development of this. For example, two staff members chose peer observation and used this to notice and discuss changes in practice.	In order to support agency and autonomy in the process, staff made individual decisions in relation to which strategies they would like to explore next.	Each staff member recorded any notes they thought would help them within the process.
Reviewing And Planning Feb 2023	 Session 5- Individual Semi-structured interviews with all co-inquirers. 6 interviews were all carried out in school and varied in length between 25-45 minutes. All interviews were audio recorded. Skeleton questions were prepared which were pragmatic and allowed for reflection on the PL process. Questions were focussed across 4 main areas: benefits, costs, facilitators, barriers (Greenfield, 2016). Additionally, questions about plans for the future were included (Appendix K). Co-inquirers were given the opportunity to add any additional information or thoughts at the end of the interview. Data was transcribed and analysed using TA. 	Opportunity to gather evaluative perspectives from all co-inquirers about the project. Questions were broad to allow the conversation to flow naturally (Brinkmann, 2014). To reduce potential power imbalances, I emphasised that questions were intended to be a loose guide and we were free to deviate and discuss the things about the process that were important to them (Choak, 2013). The interview was viewed as part of the wider inquiry process and therefore should provide suggestions for future outcome rather than create a picture of a static world (Hassanli & Metcalfe, 2014).	Each individual interview was audio recorded and then transcribed. Data was analysed using TA.

During cycle 2, I sensed that co-inquirers' ownership of the project was beginning to grow, as some co-inquirers began to consider what might further support the learning of the group and how they might shape this. For example, based on their positive experience of peer observation, one participant had suggested to the school leadership team that peer observations be re-introduced across EY, and another suggested that they were thinking about ways to support the development of vocabulary across the setting.

3.3.7.1 Approach to Data Analysis

As had previously been agreed with co-inquirers, I took responsibility for transcribing and then analysing the interview data using inductive TA as described by Braun and Clarke (2006). This was an ethical decision to reduce any potential burden on co-inquirers' time. I utilised the six phases guide as a framework to support my interpretation (Braun & Clarke, 2006) and their criteria for a good TA in order to create quality in the analysis and discussion (Braun & Clarke, 2021).

Table 3.9 Six Phases of Thematic Analysis. (Braun & Clarke, 2006)

Six Phases of Thematic Analysis		
Familiarise yourself with data	Familiarising yourself with the data.If required transcribe the data, reading and re	
	reading the data.	
	 Noting down any initial ideas. 	
2. Generating initial	 Coding interesting features of the data in a 	
codes	methodical fashion across the data sets.	
	Collecting data relevant to each code.	
3. Searching for themes	 Collating codes into potential themes. 	
	 Proceeding to gather all data into relevant themes. 	
4. Reviewing the themes	 Checking that themes work in relation to the coded extract. 	
	 Generate a thematic map of the analysis 	
5. Defining naming	 Ongoing analysis to refine the specifics of each 	
themes	theme and overall patterns the content shows.	
	 Generate clear definitions for each theme. 	
6. Producing the report	 The final opportunity for analysis. 	
	 Selecting vivid and compelling extract examples. 	

Data was analysed inductively as it was not guided by any distinct theoretical perspective or prior themes. The process of analysis is iterative and reflexive and

therefore there was movement between phases as themes were generated and refined. The themes generated are not assumed to be discovered truths but offer an interpretation of the data (Braun & Clarke, 2021). The prolonged engagement with co-inquirers and the recording of field notes added to the validity of the process (Cho & Trent, 2006). The themes generated were discussed in cycle 3, supporting co-inquirers to reflect upon their experience of the project and where they would take the work next.

3.3.7.2 Insights provided by Thematic Analysis

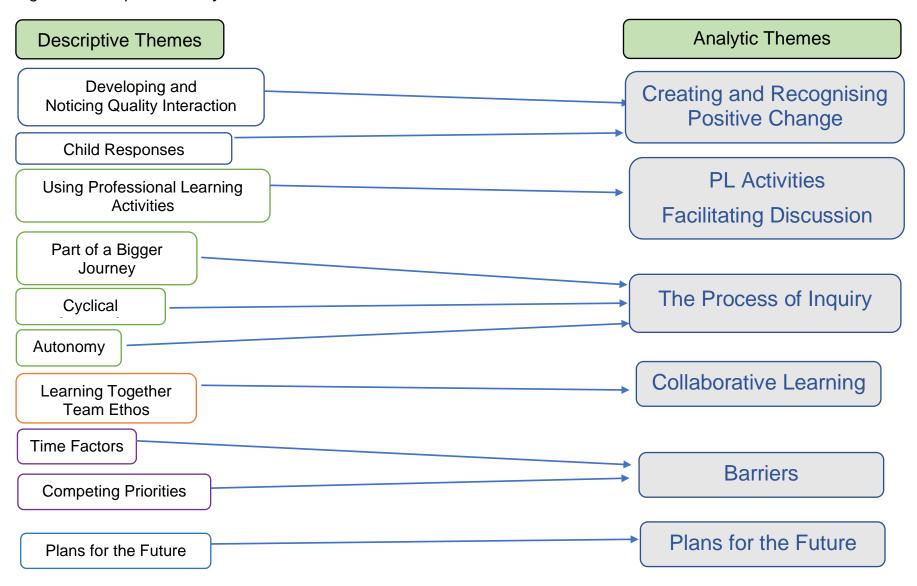
Initial coding of data led to the development of 20 codes (Appendix O and P for coding examples) which were then refined and organised in to 11 descriptive themes (Table 3.10). The final stage led to the construction of six analytical themes (Table 3.10 and Figure 6).

Table 3.10 Development of Codes to Themes

Grouping of Initial Codes	Descriptive Themes	Analytical Themes
 Better Quality Interaction Noticing Better Quality Interaction Specific Interaction Strategies 	Developing and Noticing Quality Interactions	Creating and Recognising Positive Change
4. Thinking More/New thinking5. Child Response6. Benefits	Child Responses	Change
7. In Line with School Aims	Part of a Bigger Journey	
8. Cyclical AR Approach9. Outsider Perspectives	Cyclical Approach	The Process of Inquiry
10. Choice	Autonomy	
11. Using Professional Learning Activities -Video -Peer Observation -Modelling -Discussion	Professional Learning Activities	PL Activities Facilitating Discussion
12. Team Factors 13. Team Discussion 14. Working Alongside	Learning Together Team Ethos	Collaborative Learning
15. Adequate Time 16. Cost or Disadvantage 17. Other Pressures	Time Factors Competing Priorities	Barriers and Challenges
18. Exploring Across the Age Range 19. Extending Practice to Colleagues	Plans for the Future	Plans for the Future

Whilst I discuss these themes separately it is acknowledged that there is overlap between themes. The analytical themes constructed through the process of Thematic Analysis are discussed in detail below in order to provide insight into how engaging in PL was supporting practice development at this point in the inquiry. Discussion is embedded throughout.

Figure 6 Descriptive to Analytic Themes



3.3.7.3 Analytic Theme 1: Creating and Recognising Positive Change

This analytic theme pertains to the extent to which a change in practice was perceived by the co-inquirers to have occurred. The aim of this project was to support PL, more specifically the development of practice in relation to the use of language enhancing strategies during adult-child interactions. The difficulty of transferring new knowledge into practice has been acknowledged repeatedly (Chidley & Stringer, 2020; Fixsen et al., 2009).

It can be argued that engaging in this PL project had a positive impact on practice as developments were regularly discussed by co-inquirers throughout the cycles, during interviews and during the review of the themes. Co-inquirers suggested they were striving to interact more frequently with children and to improve the quality of those interactions. Several co-inquirers shared video footage or written notes in relation to the strategies they had used during interaction providing further credibility to their accounts. Further, during final interviews they were more able to discuss the strategies they were applying, explicitly referencing the language facilitating and modelling strategies we had talked about during group training sessions.

"being more open and letting the children lead instead of me leading" Kirsty

"extension, and expanding the language" Sarah

"repeating what they said then listening to their vocabulary and then the next time I would expand it a little bit" Lisa

During cycle two and in the final interviews it was also interesting to note that some co-inquirers frequently noticed the developing practice of their colleagues in the setting during day-to-day activities or more formal observations.

"I was like, that's expansion. That's just what we've done. I see what she's done there,....so I knew that she'd thought about it then" Vicky

"we're using each other to notice how we are doing these interactions" Lisa

The ability to notice and interpret effective interactions in others has been suggested as important for the development of practice, allowing the observer to further develop their own knowledge (Jamil et al., 2015; Mathers & Siraj, 2021). In this context, the opportunity to work alongside other staff meant that most co-inquirers had regular opportunities to refine their observation skills, building their own understanding in the process. This suggests that a collaborative approach may support practitioners to develop practice.

For some team members the process of practice change represented an element of challenge, with two co-inquirers discussing how the process involved trying new things which were not always comfortable or easy to achieve.

" like waiting,...I've really found holding myself back and waiting hard..... but, ... I think you can do it and I'm rooting for you... keep your mouth shut [Kirsty to herself], so that they can answer you. And I've really found that...really tricky" Kirsty

This internal dialogue suggests that Kirsty was finding the use of some strategies difficult, particularly when the approach was different to her usual ways of working. This reflects literature suggesting that change can sometimes feel uncomfortable, particularly if it requires challenging long-held assumptions, practices or habits (Chidley & Stringer, 2020; Didion et al., 2020). I wondered what had enabled practitioners to continue to explore when things felt tricky. Fraser et al., (2007) suggest that "contexts need to be supportive to allow enactment and risk-taking" (p159) so teachers can make new links between theory and practice. As co-inquirers in this study were experienced practitioners (10yrs plus), it was possible they had previously engaged in and learnt from experiences which had been uncomfortable but also beneficial. Honesty about the level of discomfort may also indicate that a level of trust had developed between myself and some co-inquirers as they were able to share their feelings of vulnerability.

The individuals' willingness or capacity to step out of their comfort zone might also explain differences in the level of practice change between practitioners engaging in PD/PL programmes (Brebner et al., 2017; McDonald et al., 2015; Ottley et al., 2017). Implementation science suggests that assessing readiness to change, that is the willingness and ability to change, is an important factor in practice development

(Livet et al., 2022). This study additionally suggests that it is important to consider the extent to which learners feel able to take risks and continue with the process of exploration even when this feels uncomfortable. Further research might explore what facilitates or hinders this process.

Practitioners' perceptions of change in the children's response to the use of interactive strategies may have also contributed to the overall willingness to take risks and shift practice. Several co-inquirers described how they noticed changes in the children including staying longer in the interaction, having an increased amount of verbal response, and using new vocabulary.

"I noticed ...a lot of my key children who didn't show a lot of interest used to jump up and run off,... erm stayed a bit more....it lasted a bit longer and I seemed to get a little bit more out of them. Lisa

"oh look at how that child has responded to the way you've asked that question" Kirsty

Seeing changes in children perhaps validated the theoretical and research-based information we had explored as practitioners could see the tangible effects of the changes they had made to their interaction.

In summary, this theme suggests that co-inquirers perceived that they, and interestingly their colleagues had made positive changes to their interactions with children, applying strategies to support language development. The exploratory nature of the AR process allowed co-inquirers to try out strategies with a sense of curiosity and for some, provided opportunity to step outside their comfort zone. It appears that learning about strategy use is not an isolated event but one whereby theory, action and the creation of new practice-based knowledge are interrelated as the learning about strategies during interactions is refined and validated over time.

3.3.7.4 Analytic Theme 2: Professional Learning Activities Facilitating Discussion

This theme suggests that co-inquirers felt the PL activities they had chosen to support the use of language enhancing strategies, helped develop practice. All co-inquirers discussed the impact of PL activity they had chosen to utilise with all

practitioners viewing their chosen strategy as helpful in supporting practice development. Therefore, there were several perspectives about the relative benefits of each activity. However, there was some commonality as practitioners most frequently talked about how engaging in activities that stimulated constructive discussion and dialogue with colleagues, supported future practice.

Those who used peer observation suggested that the discussions following observations encouraged them to try something new or approach an aspect of practice in a different way.

"you just get set in your ways.....until somebody says try this" Erin.

This reflects O'Leary (2020) who suggests that peer observations benefits both the observer and the observed.

Other co-inquirers commented on the benefits of using video recording to stimulate dialogue and aid learning. This included both those who had utilised this as a PL approach and others who commented on the use of excerpts during the training sessions.

"showing some videos.. that's interesting, when you watch videos of other practitioners and seeing what other people pick up on" Vicky

"when you shared, ... the YouTube clips cause like it's nice to see other people's practice and.... you only tend to watch practitioners in your own setting, you don't seem to watch them from somewhere else, it's quite nice to see how they're doing things and react to that side of it" Georgia

Co-inquirers appeared to value the opportunity provided by the video clips to observe and discuss practice from outside their setting. I wondered whether the absence of a personal relationship with the subject of the video allowed for a distanciated perspective through having a more open and critical dialogue (Van der Riet, 2008). This was reflected in my notes:

"some suggested areas where they might have done something differently. Enabled reflection on own practice. This maybe wouldn't have been so productive if it had been a video of a colleague?". Session notes 12.10.22

The benefits of using video stimulated reflection as means of supporting practitioner learning by providing concrete examples of practice that can be used to stimulate pedagogic dialogue, is highlighted in the wider literature (Lefstein & Snell, 2013; Van Es et al., 2014).

One member of the staff also noted that there were benefits to colleagues filming themselves and then reflecting on their practice.

"I think it was good because she could actually like look at herself through our eyeswhen she sees herself...that's what we're seeing her do. And it's like the reflection...I maybe, or could have done this, but I could have changed that.... oh, I did that really well" Sarah

This demonstrates how the use of video can support professionals to consider the importance of small but significant moments during an interaction (Kennedy et al., 2011) and can be an effective reflection tool as it stimulates thinking and conversation (Durand et al., 2016). It also suggests the benefits can go beyond those involved in the videoed interaction, extending to colleagues who can contribute to the dialogue and learning (Fukkink & Tavecchio, 2010; Lefstein & Snell, 2013)

This project enabled practitioners to not only explore content shared in presentations about interaction strategies to support language, but also to consider the use of approaches that would support their learning as they applied this in practice. Employing a more bespoke approach to PL aligns with the transformative elements of Kennedy's framework (2005) which suggests that considering context and using a combination of approaches can support transformative change. Additionally, this theme highlights the importance of simulating dialogue about practice to support the process of development.

3.3.7.5 Analytic Theme 3: The Process of Inquiry- Utilising Action Research

This theme suggests that elements of the learning experience which relate to AR processes and principles were considered by co-inquirers to support the process of practice development. Elements included the capacity for the project to reflect the priorities of the setting, the advantages of a cyclical approach which embeds the opportunity for reflection and the principles of collaboration and agency which were all suggested by co-inquirers to have supported the development of their practice.

During the scoping phases and further group discussions, it seemed important to coinquirers that the project aims aligned with school priorities.

"vocabulary and language....that's always been a key issue for us here and it's something that we're always trying to improve" Erin

Co-inquirers regularly discussed wider school developments particularly in relation to curriculum design and assessment and considered how the aims and content of the project aligned with these. For example, the way the curriculum was taught had changed recently with a greater focus on interaction and co-inquirers felt that the content of the project reflected some of the things they had been developing in their everyday practice. This was reflected in notes I had recorded in my diary (not included in the analysis).

"I noticed that the group often spoke about the changes to their curriculum. They discussed how as an EY had tried to shift the focus of the learning from being about finishing activities or achieving objectives to considering how the adults can effectively support exploration and play. Whilst I am still a little unclear about what changes had recently taken place, the group seemed to feel that encouraging conversation through interaction would fit in well with this". Excerpt from my reflective diary- Nov 2022

Research suggests that PL aligned with individual or group priorities and beliefs may lead to more sustained changes due to a greater investment from participants (Chidley

& Stringer, 2020; Hayward et al., 2004). Therefore, it was important to ensure that coinquirers felt confident that the project reflected their interests and priorities.

All co-inquirers referenced the importance of the cyclical nature of the AR process with its phases of planning, action and reflection. Co-inquirers suggested the structure of the inquiry gave them time to think, apply, and review their learning.

"visiting things, and looking at thingsit does prompt you all the time" Kirsty

"Gave me a little chance to get these things done and reflect on it... make notes or whatever we needed to do". Lisa

Such views reflect research by Sims et al. (2021b) who suggests that a number of stages may be required before practice is embedded including goal setting, feedback, self-monitoring. Learning experiences like AR which include explicit times to apply, explore and review learning might be more able to support of the transfer of knowledge into practice than other, more didactic forms of training.

Co-inquirers emphasised the importance of reflection both on their own and with colleagues. Some practitioners discussed how reflection had encouraged them to make links between current practice and considerations for future practice.

"it's nice just to reflect and you think, oh, we do that or oh, we don't we don't do enough of that" Sarah

"we've all said we do this every day, but you just notice more, you just take more notice of what you're doing and it just makes what you doing more effective, because you'll go back and change it if it didn't work" Lisa

Gibbs (1988) suggests that without reflecting on an experience, the learning may be lost and the process of reflection leads to the formation of new concepts and ways of thinking. This was evident during the individual reflective conversations (Session 3) when three co-inquirers shared how they had explored using strategies and made further tweaks to these based on reflections on their use. Discussions with some co-inquirers suggested they were perhaps engaging in double-loop learning (Argyris,

1976). They were not only thinking about how they were applying strategies, but they were considering why and in what circumstances they were applying strategies, modifying their beliefs and assumptions in the light of new experiences. The need to think critically and reflectively has been highlighted as important for practice development (Schon, 1983). The cyclical nature of AR embeds in its process the opportunity to regularly reflect on practice thus increasing the possibility of practice change.

Collaboration between co-inquirers is central to the AR process (Kemmis et al., 2013). In this project examples of collaboration were present in relation to shared decision making for example, offering choice about both the interaction strategies and the PL activities that were utilised. Interviews and the diversity of approaches chosen, (Table 3.7) suggests that practitioners valued having this choice.

"I said to you didn't I, with the time with it being so difficult, can we just do something that would benefit us as well and that would fit in? And you said, that's absolutely fine" Vicky

Co-inquirers having agency in relation to these decisions may have led to increased ownership. This is illustrated by co-inquirers feeling empowered to make decisions about future developments (Kemmis, 2009; Reason & Bradbury, 2008). For example, two co-inquirers who utilised peer observation, described how involvement in the project had been a catalyst to reintroducing peer observation as a regular part of their practice and they suggested to senior leaders it could be implemented throughout the EY.

"now we've started these peer observations. It's kickstarted that everyone is in...we've been put in a group of three to go and observe each other and then discuss it as a three" Vicky

This perhaps signifies an increasing understanding of the AR process as co-inquirers began to make decisions about what they wanted to happen next and acted to achieve this without my direct facilitation.

This theme suggests that elements of the AR process such as its flexibility, cyclical plan do and reflect process and collaborative nature were important for supporting practice change in this setting. The collaborative nature of AR allowed co-inquirers to ensure that the aims of the project, the strategies they chose and the PL activities they engaged in fitted their interests and priorities. This leads me to suggest that this level of agency led to an increased level of ownership in relation to individual and group goals and the motivation to continue to engage with these activities (Deci & Ryan, 2012).

3.3.7.6 Analytic Theme 4: Collaborative Learning

As previously discussed, the principle of collaboration is viewed as central to the AR process (Koshy, 2005; Reason & Bradbury, 2001). This research project suggests that supporting collaboration between colleagues can enhance the learning process.

Throughout the process co-inquirers suggested that they wanted increased opportunities to learn, discuss and reflect together. They were keen to share their thoughts with others and valued contributions of colleagues:

"I enjoyed hearing everyone else's opinion because I see them everyday, but I don't get to hear what they say every daylike, make their points to the question that you're asking us at the time, and I think that works quite well... you can bounce ideas off each other" Sarah

The group's sharing of reflections, observations and future plans appeared to add to a shared sense of purpose which has been suggested as important for effective PL (Cordingley et al., 2015). The group seemed to begin to form a Community of Practice (Lave, 1991; Wenger, 1999) whereby group members develop and share a common purpose, connecting regularly in order to share ideas and learn from each other. Wenger's theory emphasises how shared engagement and involvement can lead to increased ownership, and this seems to have been demonstrated by coinquirers' developing awareness of what was working well and what changes they wanted to make in the future.

This suggests that those working to support PL should consider the impact of contextual factors such as the willingness and capacity to work collaboratively and how this might support (or perhaps in other contexts hinder) changes to practice.

3.3.7.7 Analytic Theme 5: Barriers and Challenges

It was regularly acknowledged throughout the project and discussed during final interviews that time pressures associated with a busy time of year (pre-Christmas) sometimes made it challenging to focus on high quality interaction. It appeared that some practitioners recognised the value of extended interactions with children but found it difficult to balance this with other more practical responsibilities.

"I feel like since October... it's just been 100 miles an hour, constantly, so trying to remember to factor all this into your everyday practice has been.... a juggle shall we say...trying to sit and engage them for an extended period isn't always possible.... there's always someone needing nappy change or they need a nap" Georgia

"I think it's quite easy to get lost in your routine and like... this needs doing and this needs doing...it's made me stop and think a bit more, oh actually, it's more important to.., get down and get involved"-Vicky

This theme suggests that when developing new skills, practitioners need dedicated time and space to focus on these skills. Factors such as lack of available time and extra responsibilities, might fluctuate due to the time of year and could be potential barriers to practice development. It also highlights one of the challenges of research in practice, when there may be a tension between working in an ecologically sensitive manner, working at a pace co-inquirers feel would support change, and the pressure to complete the research within a defined timescale.

3.3.7.8 Analytic Theme 6: Plans for the Future

During final interviews four co-inquirers had thoughts and questions about how the strategies they had applied might work with other year groups in school. There was an awareness of the developmental differences between babies and older children and questions were emerging about what might work with different age groups. This suggests co-inquirers were engaging in deeper levels of critical thinking, a professional curiosity with the potential to create further learning in the future. Again, this might represent double-loop learning as practitioners challenged any previous assumptions about how strategies might work across the setting.

This might also reflect a move towards self-mobilization (Pretty, 1995) whereby the members of the community begin to set their own agenda for exploration and the level of involvement from any supporting professional is reduced to facilitation rather than anything more directive. Examples of this also include suggestions that staff would not only carry out peer observations but use them as a basis for establishing future priorities.

"..when I get the peer observations in and everybody's done one, I want to have a look and see what themes are coming through" Erin

One of the co-inquirers spoke about how involvement in this project had encouraged her to explore her interests further by enrolling on an EY development course.

"sometimes it just needs that spark to then push you to do a bit more development because as much as this has been research, it's been developing for us" Georgia

This is an example of an outcome that was not planned for but reflects the curiosity and confidence that developed during the engagement with this PL project.

When thinking about future plans several co-inquirers suggested that they would like to involve others in the learning, to support a consistent approach to interaction across the setting.

"it might be nice to try and pull some more people in to try and upskill them a little bit using the people who participated in our project" Lisa

This suggests that co-inquirers believe they had something to offer colleagues as result of the being involved in the project, a sense of self-efficacy (Strahan née Brown et al., 2019). Engaging in PL might not only support development during the cycles or the allocated time, but it may also have benefits for the future.

3.3.8 Cycle 3: Insight Provided by a Review of the Themes

Table 3.11 Action Research Process - Cycle 3.

Focus Area	Summary of Activities	Rationale	Data Collected and Purpose
Reviewing and Planning	Feedback to co-inquirers regarding the themes constructed through the process of thematic analysis.	Opportunity for consideration of the themes and whether they represent the experience of co-inquirers. Opportunity to explore all	Summary notes collected about points of interest in relation to: A) reflections upon each theme. B) any possible future plans.
Sept/ October 2023	Discussion in relation to any changes co-inquirers have made, they are currently making, or any identified next steps based upon the themes discussed. Themes proved to be a catalyst for discussion, and it was an opportunity to consider how the themes might influence future actions.	perspectives.	

A meeting was scheduled to reflect upon and review the themes with the coinquirers. The purpose of this meeting was to understand how constructing and discussing themes might further support the PL process. I was conscious that the themes presented for discussion had been based on analysis of individual conversations and so this cycle of the project also enabled co-inquirers to consider whether they could recognise their experience within the synthesised themes. The process of member checking, is often associated with validating or verifying the trustworthiness of analysis in qualitative research (Birt et al., 2016). In this instance, sharing the constructed themes went beyond trying to obtain a rich picture (Cho & Trent, 2006) and was an exploration of my interpretation, allowing co-inquirers to engage with the themes and share additional insights. This process might be referred to as Interthinking whereby people use spoken language to "think creatively and productively together" (Littleton & Mercer 2013, p.1). It is suggested that "knowledge is never static or complete; it is in a constant process of development as new understandings emerge" (McNiff & Whitehead, 2002, p.18). Co-inquirers were able to engage critically and constructively with each other's ideas, leading the group to find new meanings for the knowledge that has been generated and new possibilities for future actions.

Due to staffing commitments, it was only possible to discuss with three coinquirers including the EY lead who has an important role in establishing priorities for the team and supporting future practice development. An overview of the themes (Appendix Q) was emailed to all co-inquirers with an invitation to contact me to discuss any of the themes or to add any additional comments. None of the co-inquirers chose to contact me. Discussions with the available co-inquirers suggested there was a consensus that the themes that had been generated reflected their understanding of the PL experience. If any alternative perspectives or conflicting viewpoints had been offered, these would have been valued and responded to. Possible courses of action may have included clarifying the analysis process (Nowell et al., 2017) and creating an open space to have a dialogue about the themes which may have led to a consensus or provided further insight about differing perspectives (Richards & Morse, 2012). Additionally, the diversity of perspectives would have been recorded and the role of subjectivity in this interpretive process would have been acknowledged (Barbour, 2001; Creswell & Poth, 2016).

A summary of the points of interest highlighted during discussions is included (Table 3.12).

Table 3.12 Consideration of Themes and Implications for the Future.

Analytical Theme	Points of Particular Interest	Implications/Plans for the Future
Creating and Recognising Positive Change	Co-inquirers feel that some strategies have been embedded in everyday practice. Strategy use may not necessarily be detailed in written planning and was described as "part of what you do" Sarah.	Practitioners will continue to apply and recognise the impact of strategies in everyday situations. This will include individual reflections and discussion with other colleagues.
	Co-inquirers felt that they had generally been confident to give things a go and step out of their comfort zone. Staff felt this was something they do quite regularly. They felt that there was an appreciation that people can learn from both negative and positive experiences.	Co-inquirers are considering how they might continue to include strategies in their longer-term practice, both informally and perhaps more formally. This includes planning for the use of strategies in sessions, continuing to talk about strategies and perhaps monitoring for use of focus strategies during both formal and informal observations.
	Co-inquirers view themselves as part of a team who all have expertise in different areas. This could include experience of working with children of different ages. This expertise goes beyond pre-defined roles such as room leader, acknowledging a wide range of strengths in the wider team.	Staff will also consider and monitor any indications of longer-term impact on children, such as more extended involvement in conversations, or improved vocabulary. These changes could be monitored at both an individual or group level and could be noted over a longer period of time.
Professional Learning Activity	 There was a feeling that when co-inquirers spoke favourably about their chosen PL activity, they were honest in their reflections of their experience. The co-inquirers felt that if anyone had had a less positive experience with their chosen method, they would have shared their reflections and any reservations. Co-inquirers shared that engaging in discussion about practice, supported them to think about what was working well and to consider next steps. 	EY lead will continue to offer choice in relation to the activities people use to support their own learning.
	 Although it had been suggested in two previous interviews that the use of the strategies and training materials should be shared in order to achieve a more consistent approach, there were no formal plans for this to happen yet. 	 All staff are engaging in peer observation. The effectiveness of this approach will be monitored and reflected upon by co- inquirers, other EY practitioners and the senior leadership

Analytical Theme	Points of Particular Interest	Implications/Plans for the Future
		team. Themes arising from peer observations will be considered in future planning.
The Process of the Inquiry	There was discussion about the AR process and how the cyclical approach supported the application and exploration of theory in context. This was referred to in terms of both validity and practicality "seeing it in action to make sure it works for the room" Lisa. There was discussion about more pragmatic aspects of PL, acknowledging challenges and reviewing the project as it progressed.	 Continuing to review strategy use particularly in relation to the needs of new cohorts of children. Seeing clear links between theory and action is important for understanding how/when/if things work. Continuing to be realistic about expectations when engaging in new initiatives.
	Co-inquirers felt that the cyclical approach is part of usual school processes "everything is a constant plan, do review" Erin.	Considering how the group might continue to offer opportunities for discussion/reflection. This could be informally within each room or occasionally more formally.
	It was felt that offering choice with regard to focus strategies, had required people to considering their area of interest more carefully, thinking about which strategies they will develop further and why.	Continuing to offer choice in relation to PL approaches. Staff will feel more confident and comfortable.
Collaborative Learning	 Co-inquirers emphasised how they recognise and value a variety of expertise within the team. They discussed how their approach to learning together is underpinned by wider school values such as trust and openness. Co-inquirers talked about the ways in which they are supported by leaders in school, mentioning 1-1 meetings, feeling that everyone was "approachable" Sarah. 	There are currently no formal plans in relation to additional time for collaborative learning. However, staff reflected that they probably do this informally, every day in their respective teams. This project highlighted the importance of reflection and the extent to which it occurs formally and informally.
	There was discussion about how the school vision is concerned with learning and growing together and how this related not only to children, but to adults too. Co-	Staff will continue to consider how the ethos of learning at all levels is enacted in school particularly about how the

Analytical Theme	Points of Particular Interest	Implications/Plans for the Future
	inquirers felt that this idea was strongly associated with their Roman Catholic faith, and they felt that school values promote an understanding that <i>everyone</i> is continually on a journey of development and improvement. This wasn't just in relation to their jobs and positions in school, but it was about their relationships, and notions of how, as humans it is important to support others. Staff suggested the presence of mutually beneficial relationships whereby they regularly draw upon the expertise of their colleagues and support others whenever they can.	diverse skills and knowledge of colleagues at all levels is valued and developed.
Challenges and Barriers	There was an acknowledgement that around Christmas time, co-inquirers felt they didn't have the amount of time required to focus upon the changes they wanted to make. Sometimes other responsibilities had to take priority However, one co-inquirer reflected that "school is always busy, there will never be a right time" Lisa.	Future consideration about when it might be most appropriate to focus on PL and how time can be allocated and protected.
	 There was lots of discussion about the impact of national challenges including recruitment and retention, extension of childcare entitlement for 2-year-olds and proposed lowering of adult child ratios within EY. Staff acknowledged the challenge of this and the potential threat to staff morale. 	Co-inquirers will continue to consider the impact of macro factors upon the setting and how they can address such challenges, particularly those that arise from national policy change. This will be further discussed with school leaders.

Upon initial consideration of the themes, discussions suggested that engagement in the process had been a positive experience for those involved as co-inquirers discussed they had both improved their skills and enjoyed the experience. Evaluations relating to how much practitioners enjoyed the experience may not have been captured by more objectivist approaches to understanding change. During discussions about future plans, it appeared that co-inquirers felt that the AR process was essentially over after my regular involvement had ceased, and the planning for further development had lost momentum. I wondered whether the fact that the project had been proposed by myself rather than the school or the practitioners themselves represented a top-down approach, resulting in less longterm investment in the work (Hayward et al., 2004). However, through the process of discussing each theme, it seemed that the application of strategies had not ceased but had been embedded into everyday practice. Examples of this included their continuing to apply strategies such as waiting for a child to initiate interaction, mirroring their words and actions and extending their phrases on a regular basis. These reflective discussions allowed co-inquirers to consider the ways in which they had maintained strategy use allowing tacit knowledge and skills to be explored and communicated (Eraut, 2000). It was also interesting that one person had gone on to engage in a professional qualification due to increased confidence from the project.

When exploring the willingness to take risks in practice, issues in relation to equality and support from colleagues were highlighted as important. Co-inquirers reflected on the importance of their school vision which they suggested was egalitarian, positioning everyone as a learner. They suggested that this shared vision meant the learning process was valued and supported by both their peers and those in leadership positions. This reflects research suggesting that wider organisational factors such as values, collective trust and collective efficacy can support change (Holt & Vardaman, 2013; Strahan née Brown et al., 2019).

Throughout the discussion of the themes and reflection on the process, coinquirers often referred to issues of pragmatism, the usefulness and workability of engaging in an AR, PL project. This included the ways in which the training about language enhancing strategies supported them to develop their practice and how this was further enhanced by the PL activities and the AR process. This dialogue perhaps reflects the way in which AR invites co-inquirers to consider the relationship between theory and action as a process whereby "truth is evidenced through its relation to practice" (Clark et al., 2020, p.28). This could be indicative of a pragmatic approach to practice development as the iterative nature of AR, allowed co-inquirers to see and evaluate the changes they had made and consider the usefulness of strategies within their setting (Stringer, 2007).

An important area of discussion that was highlighted concerned the impact of national challenges such as government proposed changes to staffing ratios for children aged three and under, the proposed extension of two-year-old provision, and the ongoing challenges of recruitment and retention of staff. Whilst not directly linked to the aims of this project, co-inquirers referenced the implications of such issues for their setting. For example, they felt that creating more formal opportunities for practice development and reflection was an increasing challenge and timetables were always tight, "there's no wiggle room" Erin. Co-inquirers spoke about uncertainty and how pressures could potentially threaten staff morale. It may be that the process of AR might lead to increased awareness of the social and systemic factors that influence the educational context and reflection upon such issues, might enable practitioners to tackle and perhaps overcome any barriers to pedagogical change (Clark et al., 2020). There was considerable dialogue about the strengths of the setting and how small, practical changes could have a cumulative, positive impact for example, by creating regular opportunities for informal chats within rooms. Furthermore, there was an acknowledgement that the process of facing challenge is not new in education "things always crop up" (Erin) but that within the setting there is there is a shared understanding that when facing challenges, "the children always come first" (Erin). This prioritising of children's needs perhaps allows staff to focus on the matters they believe to be most important.

These reflections suggest that reviewing the themes constructed as part of the AR process stimulates reflective dialogue, illuminating some of the challenges faced at a macro level. Additionally, the process of discussing change can highlight the strengths and values present within a context that supports practitioners to overcome challenges.

Space for this level of reflection and thinking might not be present within more didactic approaches to PD/PL. It also suggests that when considering the benefits of engaging in PL, discussion should not be restricted to the attainment of desired outcomes as the process of inquiry might lead to important changes and insights that may not have been planned for, but which should also be explored and documented (Laing & Todd, 2015).

3.4 Limitations

This project had several limitations that are important to acknowledge. Whilst the inquiry suggested that engaging in PL supported the development of co-inquirers' language-enhancing interaction practice, it is beyond the scope of this research to know the extent to which any changes or developments will be sustained beyond my involvement. The current project was limited by time constraints and the pragmatic decisions that were required as part of the doctoral programme. It is possible that some outcomes or changes may occur in the future which are not captured at this time. A longer, more sustained period of facilitation may have led to different outcomes.

Whilst the process of analysing data was described as inductive, it is possible that interactions throughout the AR process, and exploration of literature may have influenced the themes that were generated. Transparency about data analysis methods demonstrates efforts to ensure the process was rigorous. The process of discussing themes with three co-inquirers, may have added to the trustworthiness of findings although it is acknowledged that the themes may not represent the perceptions or experiences of all individuals. I was reflexive throughout the process actively considering how my assumptions and experiences may have influenced the project, the analysis and ultimately the conclusions drawn.

3.5 Implications

This research project explored the question: How might an EP and EY practitioners work together to support learning and practice development in the area of language enhancing interactions in an EY setting? It explored how engaging in AR, which is underpinned by the principles of collaboration and agency, might support the PL process. Whilst generalisability was not the focus of this research, implications for EPs working with practitioners to develop language enhancing interactions, and those working to develop policy in relation to PL are considered.

Implications for Educational Psychologists Supporting the Development of Language Enhancing Interactions in Early Years Settings

Findings from this project suggest that when EPs and practitioners work together, practitioners can learn more about and develop skills in the area of language enhancing interactions. This study suggests that the PL process is not a linear, input-output process but one which requires the ongoing development and refinement of skills over time.

EPs working with practitioners to support the use of language enhancing interaction skills, should be aware that for some practitioners, change may not always be an easy process. In this project some practitioners found that making changes to interaction behaviour could be challenging at times, requiring them to try something new, that did not always feel comfortable. With expertise in the facilitation of discussion and consultation, EPs will be able to utilise approaches such as active listening, (Rogers, 1980) and collaborative problem solving (Gameson & Rhydderch, 2008; Wagner, 2000) when supporting practitioners to consider potential ways forward. EPs should consider that practitioners may require more support than that associated with the exploration of evidence-based research, perhaps needing emotional support as they grapple with new ways of working or as they attempt to manage the task of engaging in PL in addition to their usual responsibilities.

This project also emphasised that PL activities might support the development of language enhancing interactions. Reflecting wider research (Darling-Hammond et

al., 2017; Fukkink & Tavecchio, 2010; Nagro & Cornelius, 2013), co-inquirers in this project found value in PL activities that created opportunities for reflection and dialogue with others, including peer observation and video reflection. This suggests that EPs working with practitioners to develop language enhancing interactions should ensure there are regular opportunities for practitioners to talk about and reflect upon their practice and furthermore, EPs might play a role in facilitating reflective and pedagogically focussed discussions (Cordingley et al., 2005; Schon, 1983).

Findings also highlighted that choosing a PL activity may not be straightforward and a uniform approach across all staff in a setting may not be appropriate. When working with practitioners, EPs may need to be flexible in their approach to PL activities, drawing upon a range of research knowledge, but also acknowledging that a single method may not meet the diverse needs of all individuals or situations. For example, whilst some research indicates that peer observation can sometimes be associated with achieving compliance (Shortland, 2004), several practitioners in this context had previously used peer observation as a PL activity and they felt it could have a positive impact on practice. This suggests that EPs should consider how prior experience might affect perception of and openness to, adopting a particular PL approach. Furthermore, EPs could support a level of practitioner autonomy in relation to exploring PL activities, providing an opportunity to explore what works for them and why.

This study identified some potential barriers to PL including transient factors such as the times of year, staffing changes and other commitments which impacted on the extent to which staff felt able to focus on the changes they wanted to make to their interactions with young children. Additionally, staff suggested that macro issues such as changes to government funding of nursery school places may also add additional pressure on settings and therefore staff capacity to focus on and engage in PL. Both educational psychologists and EY practitioners should have and awareness of the possibility that barriers at both the micro and macro level could affect PL, and they should collectively strive to mitigate the effects of any pressures. EPs may also wish to consider the readiness of the staff and the setting prior to engaging in PL projects (Chidley & Stringer, 2020).

Wider Implications for Educational Psychology Practice and Beyond

A key implication of this research is that when working together to develop practice, EPs and practitioners may wish to consider the use of an AR framework. Its underpinning principle of collaboration means that respect for agency and autonomy are embedded throughout the learning process, valuing the contributions of all parties. Findings suggest that features of the AR process such as its cyclical approach and integral focus on reflection, offers practitioners the time and space to apply new learning making links between theory and practice. EPs hoping to support the practice development in a range of contexts should consider the potential advantages of AR over more didactic approaches to learning. Whilst the negotiation of training within service level agreements can be challenging (Winward, 2015), EPs and practitioners who have engaged in AR based PL projects, should attempt to raise the awareness of benefits of such approaches, including an increased capacity to create sustainable change (Kennedy, 2005).

This project, among others (Darling-Hammond et al., 2017; Desimone, 2009; Guskey, 2002) emphasises that EPs not only have the skills to deliver content through training, but they bring a wider range of skills and knowledge that can be used to support education professionals who consider PL learning processes at a systemic level. For example, understanding the theoretical and epistemological underpinnings of a diverse range of approaches to PD/PL alongside the impact of more practical issues such as time factors, means that EPs are well placed to support school leaders and policymakers when considering the design and implementation of PL opportunities.

Findings also have implications beyond the field of educational psychology. This research has also highlighted how the success of any programme of PL might be impacted by more transient, contextual factors such as the time of year, staffing changes and other commitments that can impact on the degree to which learner feel they are able to focus on the changes they want to make. Additionally, there should be consideration of any macro pressures that may affect potential outcomes or impact of PL projects. Prior to embarking upon any PL process,

learners, EPs and trainers should collectively consider any factors that might inhibit or slow the process of change.

Further Research

Further research might explore co-inquirer dialogue in more detail, exploring how the process of group discussion can support reflection and how different perspectives might create new insights into how language enhancing interactions might be developed. It may be appropriate to utilise a discourse analysis approach which would go beyond the analysis of words and sentences allowing for the exploration of any tensions or potential power dynamics present and how these factors might influence the course of action for either individuals or the group.

Although there is research evidence that video reflective practice may be an appropriate way to develop practice (Fukkink & Tavecchio, 2010; Girolametto et al., 2006; Steeg, 2016), co-inquirers in this project were initially very apprehensive about using video recording and reflection as a method of PL. Therefore, the use of video was introduced slowly, initially using recording of practice from outside the setting to highlight the potential benefits of detailed video analysis as method for learning about the use of language enhancing strategies. Future research might further explore how a phased approach to the use of video might enable practitioners to explore the PL activity in a way that feels comfortable and leads to the development of interaction skills.

3.6 Conclusion

The aim of this project was to consider how utilising a collaborative approach to PL, might support the development of language enhancing interactions in an EY setting. Due to its underpinning principles of collaboration and agency, AR was proposed to be an appropriate framework for exploration. Findings suggest that when an EP and practitioners work together, utilising an AR approach can support PL. Practitioners suggested that they had made positive changes to their use of language enhancing strategies and they felt more able to recognise when

colleagues used these strategies. Findings reflect an understanding of PL as a complex, multi-layered process. EPs should support practitioners to explore a number of PL activities particularly those that encourage dialogue and collaboration. Additionally, both EPs and practitioners should have an awareness about the potential challenges that may arise and how these might affect the process of PL. A number of possibilities for future research are discussed.

Chapter 4- Reflective Synthesis of Professional and Academic Learning

4.1 Introduction

In this Chapter I provide a reflective account of the professional and personal learning acquired through the process of completing this research. Reflexivity can be regarded as an indicator of quality in qualitative research (Willig 2013). During my journey I was drawn to the notion of reflexivity as a researcher's awareness of how they have shaped, and been shaped by the research (Palaganas et al., 2017). This chapter will reflect upon both areas, examining how my own values, assumptions, and beliefs have influenced this research but also how engaging in this research has changed me (Willig, 2013). Implications for my future practice as a qualified educational psychologist and researcher are discussed.

4.2 What Have I Learned from the Research Process?

In the following sections I will explore those areas where I feel engaging with research has led to a change in my understanding that will influence my future practice.

4.2.1 Understanding the Motivations that Influence Research and Practice

Conducting this research has further developed my awareness of how my previous experience influenced how I approached this research and the choices I made. I am now more able to clearly articulate how my experience of teacher professional development (PD), which had predominantly been associated with issues of improving performance or increasing compliance, influenced my exploration of the literature. Keddie (2017) suggests that an increased focus on performativity and accountability threatens teachers' sense of professionalism and autonomy, and this resonated with my earlier PD experience. Whilst my exploration of the literature validated some of my experiences, this was not an attempt to confirm my position and so I actively sought to explore different perspectives. The research process allowed me to have new understandings

about possible and preferable approaches to PD that would promote agency and autonomy for practitioners (Kennedy, 2005). Such approaches include the AR process that was utilised in this project.

I have a greater awareness of how my prior experiences might influence the psychology I draw upon in my everyday practice including the tools and approaches I utilise. This perhaps represents a shift in my practice as I seek to not only acknowledge my motivations but to explore further so that I might be able to identify and challenge any assumptions held and have a clear rationale for the decisions I make.

4.2.2 Developing My Understanding of the Action Research Process

Engaging in action research (AR) created dilemmas and challenges particularly in relation to the implementation of the project. Having reflected upon the project I am aware of how important flexibility and adaptability have been throughout particularly when timescales need to change and I will be more aware of this when working with practitioners in the future.

As a novice researcher, I continually questioned myself about, whether I was doing this 'right'. I considered that such questions were perhaps influenced by underlying assumptions about the purposes of research, associations with positivist ideas about testing theory using traditional notions of rigour which will vary across research purposes and paradigms (Cho & Trent, 2006). Undertaking this AR process highlighted that I need to acknowledge the 'messy' nature of AR and how embracing the complexity and fluidity can be a sign of quality.

"The 'messy area' can now be framed as a communicative space where participants delve into individual and collaborative understanding to disturb current knowing. It is a place where expert (practitioner) knowledge, experience, judgement, creativity and intuition are used to embrace multiple and new ways of seeing" (Cook 2009, p.281)

This process has also highlighted that I need to be able to manage any uncertainty that might arise. Cook's (2009) perspective allowed me to feel reassured that uncertainty (for myself and co-inquirers) would lead to the generation of new questions, ideas and reflections and that these might lead to new insights and knowledge. I have also learned that it is important to explore the perspectives of others who sit outside of the inquiry. Discussions with peers and supervisors may contribute alternative perspectives, ideas and ways forward and this process has often helped to me to explore the warrant for my decisions (Littleton & Mercer, 2013).

4.2.3 Understanding Ethicality and Collaboration in Practice

A key area of learning in this project has been in relation to ethicality and in particular my developing understanding of collaboration and what this means in AR projects. The participatory element of this research highlighted ethical consideration is an ongoing process (Guillemin & Gillam, 2004) and I needed to consider how ethical principles were enacted throughout the project (Groundwater-Smith & Mockler, 2007). I now have a greater awareness of the ethical tensions that may arise during research, and I am able to place myself under scrutiny when navigating these dilemmas (Braun & Clarke, 2021; Mann, 2016). In this section I will provide an overview of some of the tensions that emerged in relation to collaboration, positioning and status.

Collaboration is suggested to be an ethically appropriate approach by literature from the AR and professional learning (PL) fields (Kemmis et al., 2013; Kennedy, 2005). Whilst I aimed to operate collaboratively throughout, there were times when I worried this was compromised. For example, the timescale of the doctoral degree I was undertaking meant that some decisions, such as the specific area of interest, had to be taken at the proposal approval stage, months prior to commencing the research. However, through exploration of the literature, I began to understand that conceptualisations of collaboration involved dimensions other than those focussed on shared decision-making such as having open and honest communication, valuing the

skills and knowledge that everyone brings to the process and shared focus on achieving goals (D'amour et al., 2005).

I began to understand that collaboration is a way of bringing together knowledge and different perspectives, which provokes discussion and allows for the development of new understandings. There were times when I grappled with the complexity of my positioning, as I sought to bring insight or even perhaps some expertise in relation to research, without positioning myself as an expert. Developing a broader understanding of collaboration reassured me that it was advantageous for all coinquirers (including me) to share their knowledge and experience in order to have a fuller understanding of the issues (D'amour et al., 2005; Hayward et al., 2000). This was particularly important when co-inquirers provided knowledge that was specific to the context. For example, although some research indicates that peer observation as a PD approach can sometimes be associated with compliance (Shortland, 2004), staff suggested their experience of exploring this prior to the project, led them to believe it was an approach that would support practice development in this setting. This example demonstrates how I actively valued the perspectives and contributions brought by the co-inquirers and how I actively sought to work 'with' rather than 'on' people (Heron & Reason 2006, p.144). This negotiation required the integration of relevant research, alongside context specific knowledge, allowing for a stronger rationale about why it might be appropriate to further explore peer observation. Valuing and utilising the contextual expertise or knowledge others bring to a situation as result of their lived experience is something that I aspire to build upon in everyday practice when working with schools and families (BPS Practice Guidelines 2017).

Throughout the project I was also reassured by the suggestion that it is common for researchers to express uncertainty about the collaborative aspects of their research (Herr & Anderson, 2014). Discussions with EP/TEP peers were helpful in reassuring me that decisions I had made were necessary and ethical. Further offering my thinking to the critical scrutiny of those outside the immediate inquiry process made this an open as opposed to closed inquiry (Heron & Reason, 2006).

I have gained confidence in my understanding of collaboration as not one activity or outcome (Bedwell et al., 2012) but an ongoing and evolving process that should be embedded in my wider approach to research (D'amour et al., 2005; Groundwater-Smith & Mockler, 2007). Schenkels and Jacobs (2018) suggest the

construction of all key concepts should be shared with participants to achieve concept maturity, a co-constructed, shared and clear understanding of concepts. Upon reflection it may have been beneficial to share my constructions of both collaboration and PL with co-inquirers, allowing for a shared perspective and a deeper understanding. Exploring conceptualisations will be relevant in future research and for other areas of EP practice such as consultation where developing a shared understanding of language, concepts and constructs might be beneficial to the change process (Gameson & Rhydderch, 2008; Kelly, 1955).

4.2.4 Applying Evidence-Based Research in Practice

During the research process I have also enhanced my understanding of criticality, reflective thinking that is focused on evaluating evidence in order to form judgements which inform decision making, practice and policy (Wallace & Wray, 2021). I have developed my understanding of what it means to take a "constructively critical stance" to research, exploring the epistemological and ontological underpinnings of research, considering how these underpinnings might have influenced the methodological decisions taken and the conclusions drawn (Cameron, 2006 p.297). These skills were further developed through the quality assessment process specifically in relation to the systematic literature review (Chapter 1) (Gough et al., 2012; Hong et al., 2018) as I sought to consider the quality and philosophical coherence of the information presented, and how this was relevant for answering the research question.

There is an increasing desire to utilise evidence-based approaches in education (Hargreaves & Flutter, 2019; Slavin, 2020) and the challenges of this have been acknowledged (Gorard et al., 2020; Walker et al., 2019). It is suggested that EPs have a distinct role in "using information from the research and theoretical databases in psychology to recommend evidence-based strategies for change" and "promoting big ideas which are underpinned by psychological research evidence" to support positive change (Cameron, 2006 p.293). Therefore, developing skills linked to the critical exploration of literature, will enable my work in supporting schools to consider how psychological research can be utilised to

support others (Cameron & Monsen, 2005; Lee & Woods, 2017). This application will be underpinned by my developing ability to synthesise a range of information from a number of sources and construct integrated interpretations that can support understanding and new thinking (Thomas & Harden, 2008). Parker (2013) suggests that daily practice, which requires the synthesis of information and ideas, might be viewed as research. I am currently engaging in this process as I work alongside LA EP colleagues to consider relevant theory and research in relation to Emotionally Based School Avoidance (EBSA), how this might be critically explored, synthesised and shared with settings to support developments in practice. My research experience will be invaluable.

However, criticality goes beyond the evaluation of academic research. Throughout this thesis I have explored the challenge of applying research knowledge in a real-world context and acknowledge the importance of contextual factors "what works for whom, in what circumstances and why" (Pawson & Tilley, 1997). Ossa-Cornejo (2018) suggests that educational psychologists should acknowledge the complexity of human beings in society and education and promote opportunities for critical thinking through participatory dialogue. This was reflected in my empirical project which highlighted the importance of reflection and discussion and the evaluation of knowledge and action when supporting change. I will seek to ensure that I provide opportunities for discussion and critical thinking when supporting the settings I work with.

4.3 Implications for Practice

Throughout the research process I have developed skills and knowledge such as the ability to work collaboratively, critically engage with evidence and work in an ethically sensitive manner providing a foundation for working with schools and settings in a research capacity and during everyday practice. As young children's language development has been highlighted as a priority area for development within the local authority (LA), I will continue to work with colleagues across the LA to explore ways of utilising research to support the development of language enhancing interactions in the early years (EY) through training and my work with schools and families. Additionally, findings in relation to supporting PL will shape

the ways in which I engage with teachers and practitioners as I utilise approaches such as AR to support their agency in the PL process.

Table 4.1 is not an exhaustive list, but it is indicative of some the actions I intend to engage in in the coming months.

Table 4.1 Potential Future Actions and Outcomes

Area of Action	Activity	Intended outcomes
Dissemination	Who? Colleagues in my LA including the EP team, EY consultants, outreach workers etc. How? Sharing at team meetings, verbal feedback, liaising with EY colleagues. Potential for a webinar as part of a series we deliver to schools and settings in the LA Who? Schools/settings in the LA. How? Sharing the project content and findings during the webinar series. Sharing during planning meetings.	 Raised awareness of what might support the development of practice particularly in relation to adult-child interaction. Greater understanding of how AR might support PL as opposed to more didactic methods of learning. A session to discuss research with EP colleagues in the LA has been planned. Deeper understanding about the factors that may be important when trying to develop practice with practitioners/teachers in a variety of settings. Raised awareness of how engaging in AR might be a useful method for supporting practice change. Awareness of how it can be flexible in response to the changing needs of the context. Greater awareness about the importance of adult-child interaction when developing plans about what might support language development.
Utilise skills acquired as a Research- practitioner	Who- Me 1) Consider the use of terminology around PL and implications for those involved.	 I now have a clearer understanding about how my previous experiences and perhaps assumptions might influence the psychology I draw upon. I will acknowledge and explore these assumptions. I have increased knowledge about the variety of approaches to PD/PL and will actively explore these with those I work with in settings. This may help to understand how their previous experiences might influence their understanding.

2) Drawing upon skills of criticality developed during the project, carefully consider the range of information presented in relation to evidence-based interventions.

How- During work with schools and setting as part of usual remit.

- Providing schools/settings with space to critically consider the range of evidence available in relation to interventions they consider implementing.
- Opportunities will be created for schools/settings to reflect on the role of practice-based evidence and the importance of context when considering implementation.
- Careful consideration of desired outcomes of PD/PL and how these might change and develop throughout any project.

4.4 Conclusion

At the end of this very challenging process, I believe the project had positive outcomes for my co-researchers and provided an insight into the factors that supported practice change, specifically the development of language enhancing interactions in their setting. Such findings may also contribute to a wider understanding of PL as a means of supporting practice change. Engaging in this research has afforded me the opportunity to develop skills of criticality and examine how assumptions can influence my actions. I also developed confidence to challenge assumptions (mine and others) and engage in discussion to further my thinking around a subject. The learning I have acquired has deepened my understanding of what it means to work ethically and collaboratively and has allowed me to connect with my values in relation to respecting and empowering those I work with. I aspire to be an educational psychologist (and person) that is able to work with people in a variety of contexts, valuing their life experiences and the diverse skills and knowledge they bring. I hope to work in a way that is strengths based and meaningful for those involved, supporting them to achieve their goals and aspirations.

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Appendices

Appendix A Tools Used to Measure the Quality of the Interaction/Language Rich Environment

Title and Author	Overview	Measures used
TIRLS- Teacher Interaction and Language Rating Scale (Girolametto et al., 2000).	Rating Tool. Used to rate interaction behaviour of adults when working with children. Ratings from 1 (never), 5 (frequently) and 7 (Consistently)	 11 Strategies Organised into 3 types Child-Centered Strategies focus on the children including waiting and listening to them while they are speaking, and following their lead in conversing about a topic. Specifically, these strategies consist of: (1) Wait and Listen; (2) Follow the Children's Lead; (3) Join in and Play; and (4) Be Face to Face. Interaction-Promoting Strategies involve engaging the children as conversational partners, including extending the verbal exchanges and asking them questions. These strategies are: (1) Use a Variety of Questions; (2) Encourage Turn-Taking; (3) Scan; and (4) Imitate. Language Modelling Strategies entail providing labels, expansions, and extensions during conversations to encourage language learning and usage. These strategies consist of: (1) Use a Variety of Labels; (2) Expand; and (3) Extend
ITERS-R- Infant Toddler Environment Rating Scale-Revised ECERS-R Early Childhood Environmental Rating Scale-Revised (Harms et al., 1998).	Scale for the 0-2 ½ age range. A revised version of the ITERS 2½ -5 years	7 Broad dimensions of quality 1. Space and furnishings 2. Personal care routines 3. Language and reasoning 4. Activities 5. Interaction (e.g. supervision, support for social interactions) 6. Programme structure 7. Provision for parents and staff
Analysis of features of Input Quality to facilitate language learning across early childhood. (Rowe & Snow 2020)	Feature of Input Quality form birth to age 5.	Proposes Dimension of Input Quality 1. Conceptual Talk about present objects, here and now events, talk about past, present, elicit predictions and reminiscences, provide explanations, talk about word meanings, discuss abstract topics and hypotheticals. 2. Linguistic Clear pronunciation, key words repeated, repetition, accessible syntax, recurrent structures, increasing lexical diversity, increasing grammatically complexity, sophisticated vocabulary, longer discourse. 3. Interactive

		Pro-conversations, peekaboo, monitoring child attention, responses to child gestures/words, responding to child questions, expansions/repetitions, extending child topics, clarifying child utterances.
Communication Supporting Classroom Observation Tool (CSCOT) (Dockrell et al., 2012)	Audit/observation tool designed to profile the oral language environment of the classroom for year R, y1 and Y2. Developed as part of the Better Communication Research Programme and based upon prior research.	Observations across 3 aspects 1. Language Learning Environment. This dimension involves the physical environment and learning context. 2. Language Learning Opportunities Structured opportunities that are present in the classroom to support language development. 3. Language Learning Interactions The ways in which the adults in the setting talk with the children.

Appendix B Language Enhancing Interaction Strategies Taught in Each Professional Development Programme.

		Ascetta et al., (2019)	Brebner et al., (2017)	Hayes and Rooney, (2019)	McDonald et al., (2015)	Ottley et al., (2017)	Scarinci et al., (2015)
	Face to Face		X	X	X		X
	OWL-ing (Observing, Waiting and Listening)		X Waiting for the children to respond and listening.	Х	Х	Х	Х
	Commenting	X Self-talk (adult talking	Responding to and continuing	X	X	X	X
	Copying	about what the adult is doing)	children's	X	X	X	Χ
	Interpreting	X Narration (adult saying what the child is doing)	communicative lead.	Х	Х		Х
	Joining in and playing		Х	X	X		X
	Increased use of open questions	X	Χ	X	X		X
Strategies Taught (Based on LLLI)	Reduce yes/no/testing questions	X	X	X	X		Х
	Say less, stress, go slow, show.		X	X	X	X Requesting child to communicate	Х
	Use language to pretend, inform, explain etc	X Extension and expansion	X		Х	X Extending	
	Additional content	No additional content	Scanning – Encourages participation from all group members, no one child dominates.	Links with Aistear, Ireland's Early Childhood Curriculum Framework (National Council for Curriculum Assessment, 2009) Phatic Language (defined as language in an interaction whose function is to maintain contact between the speakers Jakobson 1960)	Children's conversational Styles Adult Roles in Interaction Developmental Norms for speech, language and communication.	Contingent reinforcement (praise for communication attempts)	 Children's conversational Styles. Important steps to ensuring no one is left out. Fostering peer interaction. Setting up experiences that prompt language

Appendix C Example of completed Weight of Evidence Decision Making Table

Adapted from Weight of Evidence (Gough, 2007), TAPUPUAS (Pawson et al., 2003), Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018)

Language of MMAT was used (yes/no/can't tell). The questions posed by MMAT are focussed upon generic methodological issues and therefore are relevant to Weight of evidence A

Focus Paper- McDonald et al., (2015)

	Criteria	Comments	Rating
Weight of Evidence A Trustworthiness Soundness of the study in terms of its methods, results and findings (methodological quality) in relation to its own research question. TAPUPAS Transparency Accuracy Accessibility Specificity	 Explicit and clear rationale for the study Clear aims Clear definitions outlined (e.g. interaction, professional development) Detailed method (replicability) Data collection and analysis methods are clear and justified. Interpretations are clear and justified supported by findings from the data. Clear and accessible Medium Some rationale provided but not detailed. Satisfactory methods and results section, describing data collection and analysis but not in detail. Some warrant for interpretations. Low Findings do not appear warranted in relation to the data. Methods section unclear. Criteria for medium/high not met. 	 Aims are clear. Rationale is clear and discussion around previous PD programme. Method is generally well detailed although there is little information about the content of the training course. Terminology e.g. PD, interaction etc could be more clearly defined. Data collection methods and analysis are clear for both studies. Acknowledged that there were challenges with methods as no participant followed the study protocol in terms of recording. Short video recordings may not capture all changes to interaction behaviour. Attempts to rule our bias during video observation (e.g. videos view nonsequentially, all videos scored by same author, inter-rater reliability scoring provided. Interpretations of individual studies are clear. Studies are accessible. 	High/Medium

MMAT				Low
Is there an adequate rationale for using a mixed methods design to address the research question?	 Reasons for conducting a mixed methods study are clearly explained and warranted. 	<u>No</u>	 Whilst the mixed methods design is appropriate for the aims of the study, there is little discussion about this no discussion about why mixed methods design would be preferential to two separate studies. 	
Are the different components of the study effectively integrated to answer the research question?	Components are integrated to create a complete picture.	<u>No</u>	There is minimal integration of the components in order to answer the research question.	
Are the outputs of the integration of qualitative and quantitative component components adequately interpreted?	The overall interpretation shows the added values of conducting a mixed methods study rather than two separate studies.	<u>No</u>	There was a lack of overall interpretation and therefore the value of utilising mixed methods was not demonstrated.	
Are the divergences and inconsistencies between quantitative and qualitative results adequately addressed? Do the components of the study adhere to the quality criteria of each tradition of the	 Divergences, inconsistencies and contradictions are acknowledged and explained. The quality of both components should be considered to be high quality for the mixed methods study to be high quality. 	<u>Yes</u>	 There is an acknowledgement but no discussion about inconsistencies between quantitative and qualitative data in relation to perceived and measured changes in interaction behaviour. The methods used in both studies appeared to be relevant to the aims of the paper and of high quality individually 	
methods involved.				

			_
Weight of Evidence B Appropriateness of Study Design linked to this current review question (methodological relevance). TAPUPAS Purposivity	A PD programme has been implemented that is concerned with developing high quality adult-child interactions in order to improve language development. The outcomes are related to a change in the interaction behaviour of the adults (either perceived or measured). Data collection methods are appropriate to the review question and justified. Other measures used within the study are appropriate for answering the review question. Medium The PD programme aims to improve interaction but is not the main focus of the study. Outcomes are only partially in relation to a change in the interaction behaviour. Outcomes are only partially attributed to participation in the PD programme. Low Criteria for High Medium is not met	 Design was appropriate in that it explored the impact of a PD programme on adult-child interactions. The study used a mixed methods approach to evaluate the PD programme. This design provided a range of relevant information. Sole purpose of both studies was to evaluate a PD focussed upon a change in adult interaction behaviour. Data collection methods are appropriate to the review question. 	High
Weight of Evidence C Appropriateness of focus of research in answering this current review question (topic relevance). TAPUPAS Utility Propriety	High A change in interaction behaviour as a result of engaging in a PD programme was the primary focus of the study. All findings are deemed relevant to this review question. Ethical considerations have been highlighted and explored. The study is ethically and legally sound.	 Mixed methods approach meant it had a good breadth. Some weakness in methods (video recording) might have meant that results were affected. Sample size is small. Lack of integration of quantitative and qualitative results. There are no ethical concerns about this study. Consents are explicitly discussed. 	High

	A change in interaction behaviour was one outcome explored in the findings but not the main focus. There is some consideration of ethical issues but explanations are not fully clear.	Study approved by NHS trust as a service evaluation.	
Weight of Evidence D Overall rating			High

Appendix D Excerpt of Summary Notes from Sessions 1 and 2

Language difficulties in the setting. - poor verabulary, don't use (and don't inderstand) some basic words. Ister instrictions etc. 10 (6 operation. Don't want to nark together, do with things Connect spills

A Redubian is socialisation links to could suggested? so basic skills seem to be missing some children wary - eg. learing when an adult approaches A Creater inclusion of children with additional needs Use of visvale to support

Session (2) (5) Lots of discussion about interaction and what might hinder it at times. Discission about balance between delivering arriculum objectives, + "teaching" and how this might be same different to interaction Some felt this could be the scine, others suggested best interections happen when fallowing child's lead, Jeining them without introding. 9 Team thinking about. How we all look like of o liny do children loave? what can we do about that we see changes? Gain providedy. Video's prempted loss of discussion. - Staff able to reactify identify the features we had disusted eg mirroung

Appendix E. Evidence Base for the Inclusion of Language Enhancing Strategies (Communication Facilitation and Language Modelling Strategies) in this Project.

Language Enhancing Strategies Introduced	Programmes/Tools suggesting these strategies		
Communication Facilitation strategies	Learning Language and Loving it (Weitzman & Greenberg, 2002)	Teacher Interaction and Language Rating Scale (Girolametto, L., Weitzman, E., & Greenberg, J. (2000).	Communication Supporting Classroom Observation Tool (Dockrell et al., 2012).
Owl-ing	X	Х	X
Observing, Waiting, Listening (includes waiting expectantly)			
Being face-to-face	Х	Χ	Х
Joining in and Playing	X	Х	Х
Using verbal and non-verbal responses	X	X	
Copying/Imitating (actions or words)	X	X	X
Commenting	Х	Х	X
Language Modelling Strategies			
Extension	X	Χ	X
Expansion	X	X	X

Appendix F: Co-Inquirer Information Sheet



Newcastle University

School of Education, Communication and Language Sciences

Research Opportunity

You are invited to take part in an action research study entitled:

In what ways can engaging in professional development support adult-child interactions in order to develop talk in the early years? An action research inquiry.

Who am I and what am I doing?

My name is Clair Craggs and I am a trainee Educational Psychologist, on the Doctoral programme at Newcastle University. As part of this training, I currently work in some local schools in XX. This research project forms part of my programme requirement for this training.

This information sheet is intended to give you a summary of the aims of the study and details regarding your participation. Please read this document carefully and ask any questions you may have before agreeing to take part in the study.

This is an action research study and I will be carrying it out with school staff, who choose to participate, from schools within the XXXX area. This will be a piece of participatory action research (known as PAR). This type of research allows people to work together to create a change in practice. With regard to this research, we will consider how engaging in professional development can support teachers and practitioners to develop their interactions with young children in order to develop children's talk. Those who wish to take part will become co-inquirers and together we will collectively make decisions about the ways in which we wish to develop interactions and ways in which we might engage in professional development in order to explore this.

What are the benefits for me and my setting?

Whilst the benefits of this research are currently unknown, it is hoped that there will be numerous benefits for the setting and those involved as co-researchers.

- Increased knowledge about what the research says with regard to adult-child interactions in order to support the development of children's talk.
- An opportunity to reflect upon current practice with regard to adult-child interaction personally and collectively.
- A greater understanding of how engaging in professional development can support practitionersparticipants to create change in their interactions.
- An insight into the benefits of engaging in action research as a method of developing practice.
- There may also be benefits for children in the setting as the adults in the setting may develop the way they interact as a result of being involved in the project.

What will participation as co-inquirer involve?

This study is an action research project whereby I will work collaboratively with staff to plan, deliver and reflect on professional development approaches that are aimed at supporting teacher-child interactions. I hope to gather information about how engaging in professional development might support transformative change and in what ways. It might also highlight any barriers to change. I hope to work with a team of teachers or practitioners in an Early Years Setting who wish to develop their interactions with children in order to support talk.

Information below outlines the proposed project. Any setting considering participation should also be aware that there is an anticipated commitment as outlined below.

- At the beginning of the project we will meet jointly, I will share more information about the nature of an action research project. We will go through the research aims and requirements, and an overview of your role as a co-inquirer. I will you to provide all of the information required for you to be able to provide informed consent.
- 2. A training session focussed on possible approaches to developing child-adult interactions in order to support talk.

- 3. Working collaboratively with teachers/practitioners to further plan the research. At this point they will firstly consider what they might like to explore in terms of interaction techniques. Secondly, how they might like to do this e.g. using a coaching method.
- 4. A period of activity (where as a co-inquirer I might be involved in supporting the development of adult-child interaction).
- 5. A review meeting to reflect upon the action so far and discussion of next steps.
- 6. A further period of action, implementing practice changes that have been agreed.
- 7. Individual semi-structured interviews that will explore the changes that have occurred and any facilitating or inhibiting factors. The interview which may last up to an hour although timing will be flexible and you will be given opportunity to fully share your experiences. During this interview you may decline to answer any questions.

Given the nature of this project, the time commitment will depend on the agreed actions negotiated by the collective research group. However, individual sessions should last no longer than one hour each. It is anticipated that the study will being in the summer of 2022 continue into the early autumn term and a minimum time commitment will be 5 hours.

Thank you for taking the time to read this information leaflet. I hope it has answered any questions you may have had about this research project. Should you require any further information or if you are unhappy with any aspect of this project, please feel free to contact me or my research supervisor on the details below. Your participation in the study is optional. You can express interest to find out further information with no obligation to participate.

If you would like to take part in this research please sign and return the attached Declaration of Informed Consent.

C.Craggs1@newcastle.ac.uk

Signature

Clair Craggs

Appendix G: Declaration of Informed Consent Form- Co-inquirer



Newcastle University

School of Education, Communication and Language Sciences

You are invited to take part in an ongoing research study entitled:

In what ways can engaging in professional development support adultchild interactions in order to develop talk in the early years? An action research inquiry.

Please read the following information carefully in conjunction with the participant information sheet before agreeing to participate in the study.

Details of Participation

- I have read the participant information sheet and understand the aims and purpose of the research.
- I understand that personal data (e.g. name & contact details) will be collected for the purposes of contacting you during the study. These will be stored separately to the data collected for the research, in a secure encrypted drive and will be destroyed 1 year after their collection.
- I give permission for our meetings to be audio recorded. This will only occur if everyone provides their consent. This will be transcribed for the purposes of this study only.
- I understand that I may withdraw my data from the process at any point up to the data analysis.
- The audio and data collected will be transcribed and used by the researcher to allow for qualitative data analysis in line with the research aims.
- I have been made aware that only the researcher and supervisor (XX) will have access to any data collected.
- I have been informed that all of my responses will be kept confidential and secure, and that I will not be identified in any report or other publication resulting from this research.
- The data will be anonymised during transcription and for any publication so that I am not identifiable.
- I have been made aware of how data will be stored securely on an encrypted drive in the possession of the researcher. This will be in accordance with GDPR regulations and policies of the University of Newcastle Upon Tyne and XXX Local Authority.

- I have been informed that I may decline to answer any questions or withdraw from the study without consequence of any kind.
- I am aware of the researchers contact details to request withdrawal.
- I have been informed that the researcher will answer any questions regarding the study and its procedures.
- I will be provided with a copy of this form for my records.

This study has been reviewed and approved by the HaSS Faulty Ethics Committee at Newcastle University (approval being sought)

The researcher's email is XXX and they can be contacted at any time. The research supervisor can be contacted at XXX

Participant	t: I am happy to take part in this study	and give my informed consent.
Date	Participant Name	Participant Signature
	er: I certify that I have presented the assorted the asso	above information to the participant and
Date	Researcher Name	Researcher Signature

Researcher: Clair Craggs (Trainee Educational Psychologist)

Email XXX

Appendix H: Parent Information Sheet



Newcastle University

School of Education, Communication & Language Sciences

Dear Parent/Carer,

Who is doing the research?

My name is Clair Craggs and I am a trainee Educational Psychologist in my second year of studying for a Doctorate in Educational Psychology. I currently work in schools in XXXXX Local Authority and I am carrying out this research as part of my course.

In what ways can engaging in professional development support adult-child interactions in order to develop talk in the early years? An action research inquiry.

What is the purpose of the research?

The purpose of this research is to work with teachers and practitioners in your child's setting XXX to explore the ways in which developing adult-child interactions can support the development of children's talk. It is hoped that during this project staff will be explore how they currently interact with children and how they might develop their practice further.

Why have I been given this information?

As part of this research project, we have decided to explore how videoing interactions between teachers/practitioners and children might help staff to reflect upon their skills in this area. We hope that this will support staff to develop practice as they will be able to see and reflect on their interaction with children. For example, we might explore what happens when children are given more time to respond or how asking a specific type of questions might lead children to talk more.

Videoing these interactions will provide staff with additional information about the interaction and is more helpful than staff relying on their memory. This will be important in developing

knowledge about what works for children and adults in this setting XXXX. Additionally, it will allow the staff to explore how using video might support their professional development in the future.

Parents/carers of all children in the setting have received this information and will be asked for consent.

What will happen?

Staff will be recorded during their routine interactions with children. This will not involve any additional activity or task. The recording process will be as unintrusive as possible.

This will be used for the purpose of discussion with staff regarding the interaction. Video will be stored on school systems in accordance with current school policies and deleted after use. Video recordings of interactions will not be used for any purpose other than to provide feedback to staff regarding their interaction techniques.

If you are happy for your child to be recorded as part of their usual school day, you will be given this information sheet to keep and will be asked to return a signed consent form granting your permission for them to take part. If you change your mind, you are free to withdraw consent at any time and without giving a reason.

Participants will not be identified in any report or publication.

Contact for Further Information

Please do not hesitate to contact the researcher, Clair Craggs Trainee Educational Psychologist, for more information: C.Craggs1@newcastle.ac.uk.

If you have any concerns about any other aspect of this research project, my research supervisor can also be contacted, Dr. Wilma Barrow, Joint Director DAppEdPsy Programme (w.barrow@newcastle.ac.uk)

Thank you for reading this information.

Kind Regards,

Clair Craggs

Appendix I: Parent consent form



Have you read and understood the Information Sheet? YES/NO	
Has this study has been explained to me to your satisfaction? YES/NO	Э.
Do you understand that your child is free to withdraw from the study a without giving a reason? YES/NO	t any time and
I hereby give consent for my child	
To be video recorded during their usual daily activities at nursery/scho	ool.
I understand that this will be viewed by members of staff and Clair Cra Educational Psychologist) as part of an action research project as des information sheet? Yes/No	•
Parent Details- Name	
Signed Date	

Appendix J: Participant Debrief Form



School of Education, Communication & Language Sciences

Participant Debrief Information

In what ways can engaging in professional development support adult-child interactions in order to develop talk in the early years? An action research inquiry.

The intention of the research was to explore the experiences of early years teachers and practitioners who were engaged in professional development with the intention of developing adult-child interactions in order to support children's talk. It was hoped that the adults involved would develop their practice in the area of interactions. Additionally, it was hoped that we might create knowledge about the ways in which engaging in professional development can support adults to change their practice.

Thank you for your time and contributions to this research. Your participation is highly valued.

If you would like further support regarding the topics discussed during this research, you can contact the following;

XXXX Psychology Service	Telephone xxxx
If you have any concerns regarding the speech and language development of children in your care please seek the support of specialist services.	Telephone XXX
North Tees and Hartlepool Speech and Language	Website www.nth.nhs.uk/services/speech- language-therapy/children/

Your data will be kept secure and confidential and may be withdrawn from this study at any time before the data is analysed. If you would like to speak with the researcher again, you can contact them at c.craggs1@newcastle.ac.uk or the research supervisor w.barrow@newcastle.ac.uk

Thank you again for your participation and your time.

Yours sincerely

Clair Craggs - Trainee Educational Psychologist

Appendix K: Interview Questions

Adapted from Greenfield (2016). Follow-up questions were asked as appropriate.

Introductory comments (Explanation, reassurances, consent)

Benefits

What (if anything) do you think have you have gained as a result of being involved in the project?

To what extent do you feel your practice has changed in relation to supporting talk?

Facilitating factors

What (if any) have been some of the facilitating factors, the things that have helped you to develop your skills or change your practice in this area?

Costs

What, if any, do you think been have the costs/disadvantages of taking part in the project?

Inhibitors

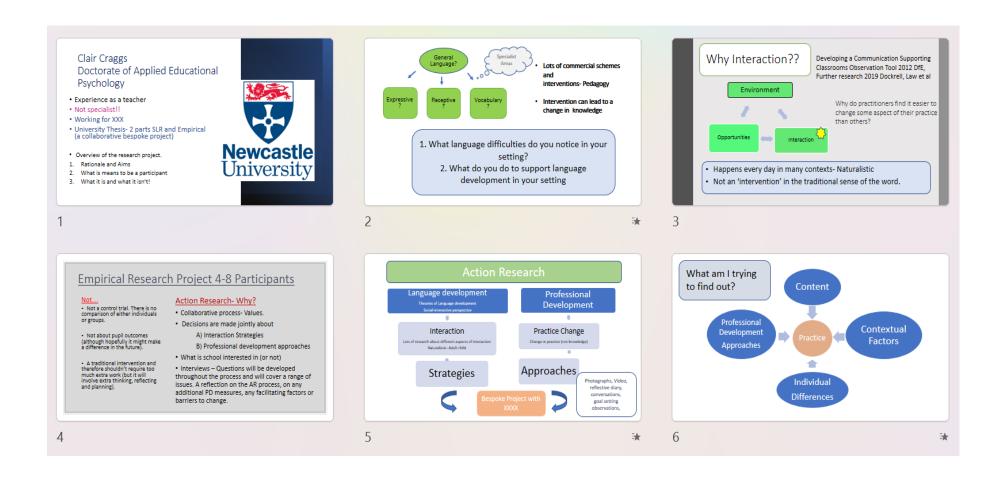
Have there been any barriers or things that have made it more difficult to make changes or adjustments to your practice or to participate in the project?

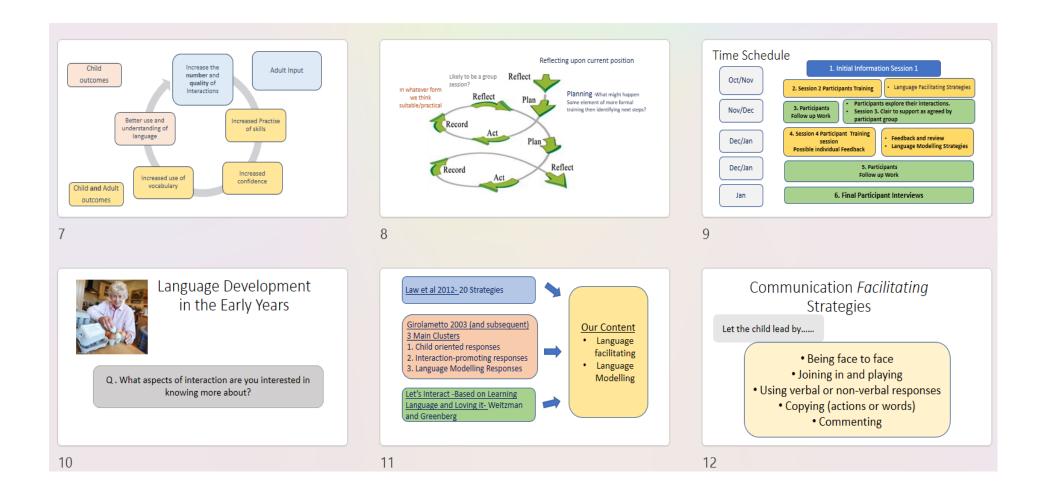
If we were to do the project again what could we do differently to make it better?

What do you plan to do next? What will you either as an individual, as a group or as a school do next?

Is there anything else you would like to share about your experience of the project.

Appendix L Session 1: Information Session (all EY staff)





Viewing Guidelines

- Short clip
- Focussed on the positives
- Holding any thoughts/questions

Thinking about the communication facilitating strategies we looked at before

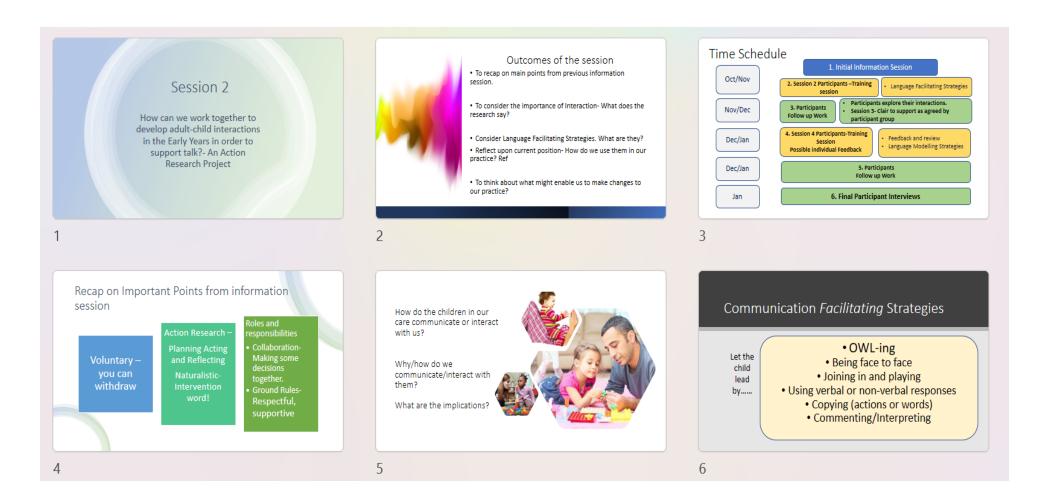
What do we notice about the interaction?

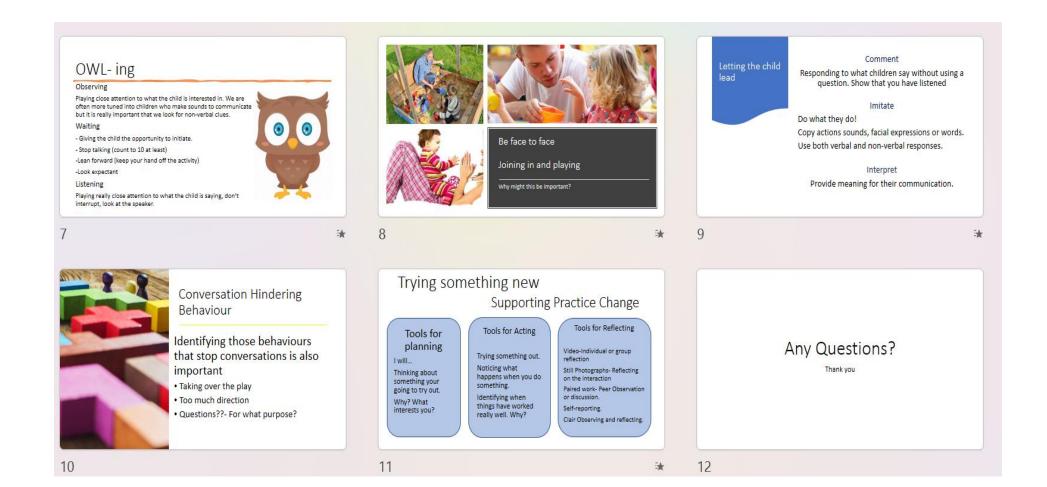
What did you enjoy seeing? What resonates with your experience?



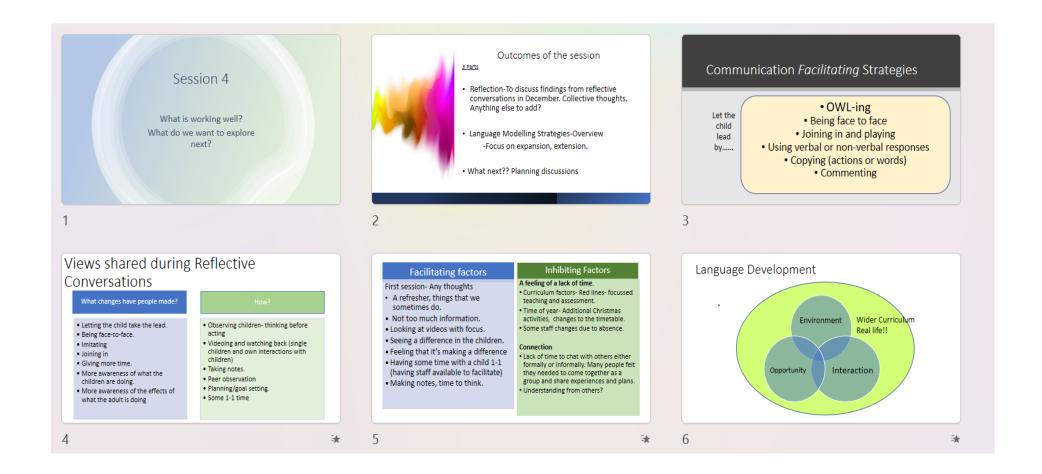
13

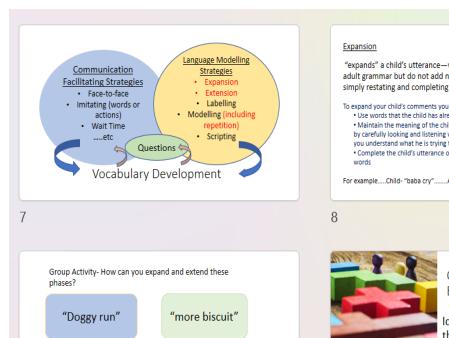
Appendix M Session 2: Training session for Co-inquirers. Focus on Communication Facilitating Strategies





Appendix N Session 4: Training Session for Co-inquirers. Focus on Language Modelling Strategies.

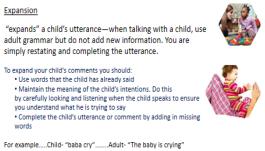




"shoe off"

"bus"

10



Extension

Take expansions a step further by adding more information to your child's utterance and adds and additional related comment.

To extend your child's comments you should:

- •Acknowledge and respond to what he has said
- •Add more information to it

For example

The child is pointing to a baby and saying "baby cry". Extend it by saying: "Yes the baby is crying. The baby is hungry"

Child says, "Car go," Adult.

9

Conversation Hindering Behaviour

Identifying those behaviours that stop conversations is also important

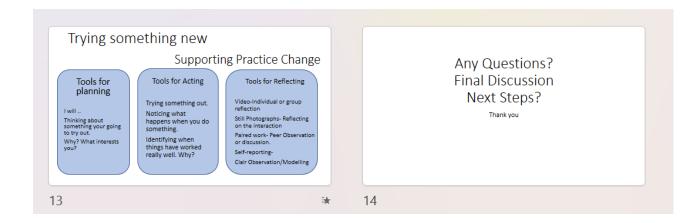
- Taking over the play
- Too much direction
- Questions??- For what purpose?

Planning- What next?

Continuing with lang facilitation- How?

Exploring expansion and extension- How? How might you communicate this with each other?

11 12



Appendix O Thematic Analysis- Examples of Initial Codes Generated Using NVivo

Codes Q Search Project		~
Name	Files	References
 Application across the age range 	4	9
O Autonomy	3	5
Barriers	5	12
Adequate time	4	11
Other pressures	5	11
O Benefits	6	20
Better quality Interactions	5	15
O Noticing Better Quality Interaction	3	8
O Child Response	5	15
 Costs or disadvantages 	3	3
Cyclical Approach	4	11
 Extending practice to colleagues 	5	19
In line with school priorities	2	2
Outsider	3	5
O PD Strategy	6	12
Plans for the future	6	22
Specific Interaction Strategy use	3	6
☐ ○ Team Factors	6	21
 Team Discussion 	6	20
O Working Alongside	5	8
■ O Thinking more	6	22

Appendix P Codes with Example Quotes

Code		Description	Example Quotes
1.	Application across the age range	Reference to how strategies might be applied across the age range	"we don't often go down to babies and it's good to go to go back and see see how it's done down there" Vicky "when I go into the year one classroom as well and trying to think about how that would fit from a different year group's perspectiveeven going into our reception class and I know that the they have a big struggle in there with speech and language with the children in there. So probably think about how we could, you know, dodo that in a different kind of way to how we'vewe've done it with the early years to not to make it a bit more appropriate for the older children and even right across school" Erin
2.	Autonomy/Choice	Reference to having choice in relation to interaction strategy or PD activity	"Well we've been given the opportunities to use lots of different approaches which has been nice" Lisa "the girls in the different rooms have done different things to what me and [insert colleagues name] have done in my room" Kirsty
3.	Adequate time	Staff considering whether they had adequate time to make changes to practice.	"I think it was just the time pressure nothing else. Doing it, when you got into doing. It was fine. It was just that little bit of timing" Kirsty "finding the time to then get together and reflect on it was was difficult too" Vicky
4.	Other pressures	Reference to other responsibilities, changes or factors that made it difficult to explore the use of interaction strategies on a regular basis.	"there's so much going on and like, obviously we've got a lot of little babies in again now so like it's non-stop, so that sometimes is a bit of an issue because you've got, like, nappies and the daily routine to do that, it's sometimes hard to fit the activities and stuff in" Sarah "then it was all the different pressure with Christmas and then then we come back from January and it was like there was still staff off and I was pulled here and people were pulled" Kirsty "I think it's been a bit hard to take part in it, cause staffing iswe've been struggling with staff" Georgia

5. Benefits	Other areas where staff suggested they were experiencing some benefits	"I think the people who've been involved in it have enjoyed it" Lisa "we communicate with each other a lot more I feel,like I said I said we've told them what we're doing. Like with, not with everybody but it does spark that conversation with them" Georgia "like I've noticed as wellthat [insert colleagues name] has, you know, stepped up a little bit more with her questions questioning things and got bit more involved in learning times" Erin "I think it's it's better to like definitely benefitted us all because obviously we're we're rubbing off on the other people in the room as well" Sarah
6. Better Quality Interaction	Staff perceiving that they were having a better quality of interaction with the children.	"Imitations and erm that was quite interesting to me and noticed a lot of the lot of my key children who didn't show a lot of interest used to jump up and run off, erm stayed a bit more focused and it lasted a bit longer and I seemed to get a little bit more out of them". Lisa
7. Noticing Better quality interaction	Staff noticing that colleagues were having better quality interactions with children	"because normally I wouldn't pay that much attention to what [colleague name] was doing because I'm doing stuff of my own so it actually made me stop and pay attention to Lisa and her speech with the children, which was nice to see" Sarah
8. Child Response	Staff noticing a difference in children's response to the interaction strategies or any changes in behaviour.	"not jumping straight in, they're more approachable to come and talk to you and have a conversation and, yeah, you do see them like struggling to try and get their words out and what they're thinking, about what they're trying to tell me, but it's a lot more calm and not rushed and they do eventually get there without me jumping into the conversation so that I think that that's built their confidence up as well" Kirsty "I chose the er, Imitations and erm that was quite interesting to me and noticed a lot of the lot of my key children who didn't show a lot of interest used to jump up and run off, erm stayed a bit more focused and it lasted a bit longer and I
9. Costs or	Anything co-inquirers	seemed to get a little bit more out of them". Lisa "There were no cost and no disadvantages" Erin
Disadvantages	perceived to be a cost or	Thore were no cost and no disadvantages. Enn

	disadvantage of participation in the project	
10. Cyclical AR Approach	Reference to AR process and allowing time for the application of learning.	"But I think because we had that first session and then we had like a little break and then we come back to it and you you picked up and showed a slides and it just it does stick" Kirsty "Give me a little chance to get these things done and reflect on it and you know, make notes or whatever we needed to do" Lisa.
11. Extending Practice to Colleagues	Reference to how they might involve (or wish to involve) colleagues in aspects of the project. This could include sharing learning or practice.	"I think having a few more people on board might be good" Georgia "I think going forward for me it might be nice to try and pull some more people in to try and upskill them a little bit using the people who participated in our project" Erin
12. In Line "ith School Priorities	Some reference to school aims and how this project aligned with those aims.	"that's always been a key issue for us here and it's something that we're always trying to improve" Erin
13. Outsider Perspectives	Reference to working with someone from outside the setting.	"you coming in as an outsider to have a different pair of eyes on things" Erin "me thinking Oh yeah, yeah actually that if that we could do that, that's a good idea" Kirsty "even doing that in with my own team instead of just you coming in and doing them" Vicky
14. Using Professional Learning Activities -Video -Peer observation -Modelling Discussion	Reference to interest in a particular PL activity or a feeling about how this supported the application of an interaction strategy.	"showing some videos and like that's interesting, when you watch videos of other practitioners and seeing what other people pick up on" Vicky "I quite liked having the meetings with you, like when you shared, mainly the YouTube clips cause like it's nice to see other people's practice and there's just a clip on YouTube, but it something that, I don't know about any other practitioners, but you only tend to watch practitioners in your own setting, you don't seem to watch them from somewhere else, it's quite nice to see how they're doing things and react to that side of it." Georgia
		"The peer observations I think we should do it, maybe every half term. Just to keep us afresh" Kirsty

45 Dlama familia	A	
15. Plans for the	Any reference to things	"think I just need to, for my personal development, just elaborate on that
Future	they planned exploring or	so say, well, actually, why don't we try this?" Georgia
	doing in the future.	
16. Specific	Staff reference to	"I ask more open-ended things" Erin
Interaction	application of a specific	
Strategies	strategy.	"then I did obviously, extension and expanding language as well erm and that was interesting as well. It's hard to stop yourself sometimes from saying these things, but because I I knew I was just repeating what they said and then listening to their vocabulary, and then the next time I would expand it a little bit more and it was really interesting" Lisa
17. Team Factors	Reference to how the	"I think we can be and we are a strong team when pulling together like
	team supported each	we help, like I say I'm pulled from one room to go to a different room and
	other either during the	the same with the other girls, the girls'll step in and go into a different
	project or more generally	room. I think we adapt" Kirsty
	in their usual working life.	
18. Team Discussion	Team members talking to each other about the changes they were making.	"also feeding back to the other members of staff, because if I'm with a group of children, sometimes somebody else will interrupt it but actually I have to explain, I'm waiting for a reason" Vicky "I think that you coming in and discussing it with us as a group. And then being in the group and getting ideas off other people" Vicky "conversation with colleagues is definitely helping" Erin "I enjoyed hearing everyone else's opinion because I see them everyday, but I don't get to hear what they say every day" Sarah
19. Working	Staff talking about learning	"I think it's me and [colleagues name] have been bouncing off each other a lot
Alongside	alongside their colleagues.	so we've been helping each other out so the stuff that I did miss because I was off, she's kind of caught me upon a little bit and yeah I would say it's good that we're both doing together" Sarah
		"it's been nice to have a little chat every now and again, or well how did you do that? And did did you hear that type of question? And oh look at how that child has responded to the way you've asked that question" Fiona

		"You know as somebody who's quite new to the leader role in early years, it's been nice to work alongside them on the same level rather than being somebody who's erm leading them" Erin
20. Thinking More/New thinking	Staff reference to thinking more or thinking differently about their interactions.	"I just I do like the fact that it made me more reflective on myself because I do think of ways that I've done something and you know in the past you just do it and you get on with where now I'm a bit more like well, could I have changed that or well, you know how" Georgia "like it's good to reflect on your practice all of the time" Vicky "So obviously the joining in bit, you know, before like, like I said before, I'd go in full throttle. And I think been made more aware" Kirsty

Appendix Q: Overview of Themes for Setting

Descriptive

Brief explanation of each theme

The Process of the Inquiry

- 1. Part of a Bigger Picture
 - 2. Cyclical
 - 3. Autonomy

- 1. During both the cycles and final interviews, co-inquirers discussed wider school initiatives including curriculum design and assessment, particularly in relation to age related expectations and how the project might align with these. It was important to co-inquirers that they could see the links between what they had been thinking about in school and the content of the project.
- 2. Three co-inquirers suggested that they had enough time for the exploration of strategies. All co-inquirers valued the opportunity for reflection that was built into the cycle. Some expressed a desire for more opportunities for group reflection.
- 3. Opportunities for choice and autonomy built into the cycle. This was the first time most co-inquirers had been involved in action research and an uncertainty about what was required/desired. Autonomy leading to increasing ownership.

Creating and Recognising Positive Change

- 4. Developing and noticing interactions
- 5. Child responses

- 4. All co-inquirerss talked about how they had applied some of the strategies we had talked about. They discussed these changes to aspect of their practice, and some co-inquirers acknowledged that at times this could feel a bit tricky. Some co-inquirers talked about noticing the interactions of other adults.
- 5. The impact of the strategy on children was talked about. Changes included staying longer in the interaction, talking more and using new vocabulary.

Professional Development Activity

6. Professional Development Activities

Video, peer observation etc

6. Professional Development Activities- In the initial scoping stages of the project it was suggested to me several times that some potential co-inquirers were worried that involvement may require them to be involved with video recording. Therefore, it was important that there was choice available in relation to PD activities.

Co-inquirers talked favourably about the use of video (either co-inquirers or others) as a means of view and reflecting on practice.

Collaborative Learning

7. Learning Together

8. Team Ethos

7. During individual conversations during the process, all co-inquirers suggested that they would like increased opportunities to learn, discuss and reflect together. They valued the contributions of their colleagues.

8. The capacity to learn together is perhaps underpinned by a wider team ethos. There seemed to be a strong emphasis on team-work and supporting each other in their roles.

Challenges and Barriers

9. Time Factors

10. Shared Understanding 9. It was regularly acknowledged throughout the project and during final interviews that there were time pressures including those associated with the time of year (pre-Christmas). Participants expressed that they had to balance the focus on interaction with other more practical responsibilities. Staff sickness also led to some changes in routine as some staff were working in rooms that wouldn't be their usual setting.

10. Some staff members expressed that they would have liked little more support and understanding from the wider team. This was generally in relation to the time for exploration of their strategy. However, they also wanted to share the things that they had learnt about and the insights they had created.

Plans for the Future

- 11. Exploring across the age range
- 12. Extending the Practice to colleagues

- 11. During final interviews four participants had wonderings about how the strategies might work with children in different age groups. Several staff referenced changing rooms on a long term or temporary basis, and they wondered how strategies might work within a different age range.
- 12. Several staff members said they would like to continue their exploration of the strategies. Some discussed continuing with the method of professional development they had chosen (e.g. peer observation) and this had been introduced to all staff members. Several people talked about feeling that they would like to involve other staff members who had not been participants. They felt it was important to share the learning and develop consistent practice. One participant had enrolled on an Early Years development course with a colleague (not a participant).