

**Exploring professional knowledge related to the development of
communication, for children and young people with Profound and Multiple
Learning Disabilities in an educational context.**

Submitted by Rachel Gallagher
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Signed Rachel Gallagher

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Abstract

Background

Children and young people with Profound and Multiple Learning Disabilities (PMLD) make up 3.2% of all children with identified Special Educational Needs and Disabilities in England (SEND) (Department for Education, 2022). The World Health Organisation (2007) outlines that those in the category of with profound learning disability have an IQ score of 20 or below, that there is usually an organic aetiology underpinning their needs and other physical disabilities. Limitations within communicative abilities are also noted. Goldbart (2014) found that speech and language therapists were highly reliant on experience and practice-based knowledge to inform decision making and ways of working with clients with PMLD to develop communicative skills. Literature review precepting the current study uncovered a dearth of literature regarding the evidence base underpinning commonly used communication approaches for learners with PMLD, and highlighted difficulties faced by teachers who teach children and young people with PMLD in accessing relevant training which supports their practice. There was no research identified that examined the knowledge, practice and decision making of teachers who teach children and young people with PMLD, regarding the development of communication in the educational context. The purpose of the study is to understand how adults around the child know that communication teaching is effective, how communication approaches are selected, any barriers to implementing communication teaching and how teachers come to know how to develop communication for learners with PMLD.

Participants

Five teachers with qualified teacher status, currently working in special schools in England with children and young people with PMLD. Five parents of children taught by the participating teachers were recruited to form five case studies. Children and young people acted as co-participants.

Method

Multiple exploratory case studies were conducted across five cases, situated across the North East, South East and South West of England. Semi-structured interviews and video-stimulated reflections were conducted with teacher participants, and semi structured interviews were conducted with parent participants which completed the data set. Teacher participants engaged with a recruitment questionnaire to support context setting. Interviews and reflections were audio recorded and transcribed.

Analysis

All data were analysed using Reflexive Thematic Analysis (Braun & Clarke, 2022) findings are described and presented in thematic maps. Further cross case analysis was then completed.

Findings

Teacher participants reported that communication teaching is at the core of their work and is happening at both planned and unplanned times throughout the school day. Both teacher and parent participant's evaluation of effectiveness lies primarily with the child's ability to give reliable affirmative or negative responses in preparation for adulthood, to enhance autonomy and independence. Communication for social pleasure, enhanced mental health and wellbeing that enhances quality of life is also

cited as a key marker of effectiveness. Teacher and parent participants consistently described person-centred planning practices, not yet connecting these valuable practices to migratable frameworks that would provide a common language. Relevant and applied short courses, lived experience, and learning from knowledgeable others were cited as predominant sources of professional knowledge. Limitations around resourcing, adversarial governance measures, managing support staff, emotional impact of the work, children and young people's complex and changing medical and developmental profiles and accessing relevant training were amongst the barriers cited.

Conclusion/Implications

Implications for teachers include access to specific training and professional networks. Implications for educational psychologists include reflections on role conceptualisation surrounding work with children and young people with PMLD, and the use of video stimulated reflection in practice. Considerations at organisational level include development of initial teacher training and a standardised multidisciplinary offer. Ongoing ethical considerations for research with this group are highlighted.

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List of abbreviations

Abbreviation	Terminology
BERA	British Educational Research Association
DBS	Disclosure and Barring Service
ECT	Early Career Teacher
EHCNA	Education and Health Care Needs Assessment
EHCP	Education and Health Care Plan
EP	Educational Psychologist
II	Intensive Interaction
ITT	Initial Teacher Training
NQT	Newly Qualified Teacher
OoR	Objects of Reference
PMLD	Profound and Multiple Learning Disabilities
RQ	Research Question
SALT	Speech and Language Therapist
SLD	Severe Learning Disability
SLT	Senior Leadership Team
TA	Thematic Analysis
UK	United Kingdom

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Chapter 1: Introduction

1.1 Chapter Overview

In this section, I will explore the context of the issues underpinning the current research. I will present definitions of Profound and Multiple Learning Disabilities (PMLD) and subsequent need, the purpose of developing communication with this group, interventions and approaches used and introduce professional issues relating to teachers who are teaching learners with PMLD. I will also present myself as the researcher and declare my positionality, interest, and the origins of my motivation to investigate this area. I will provide an overview for the current thesis, sharing underpinning rationale and research aims.

1.2 Personal Perspective

Qualitative research champions the role of the researcher as a subjective, partial, and integrated part of the research process, the world view of the researcher cannot be separated (Guba & Lincoln, 1994). Therefore, in order to be reflexive, one has to be aware of one's own positionality in relation to the research. Through an awareness of personal history, values, motivation, constructs, and the emotional and cognitive experiences which inevitably influence worldview and interact with the research throughout, it is possible to be more transparent about the origin and parameters of the researcher position.

I first volunteered within a hospital school provision providing arts-based activities aged 16. This was my first introduction to the idea that education may look and be experienced differently to my own formal experiences of school, which I was still

attending at the time. I went on to work with children, young people and families who might be considered vulnerable through being hospitalised, looked-after, having a disability or other physical or mental health difficulties, for 14 years prior to embarking on the professional doctorate for educational, child and community psychology. Despite varied experience across a range of settings, opportunities to engage with children understood as having complex medical needs or Profound and Multiple Learning Disabilities (PMLD) has always been limited.

I made a conscious effort to visit special schools as part of my educational psychology training placements, as I had never had much opportunity to experience a special school provision. From spending time in classrooms that catered for children with PMLD, further interest was generated. I have formed the view that there is something intrinsically different about the profession, practice, experiences, motivation, and values of teachers working with this group, in comparison to teachers working in mainstream settings and wider Special Educational Needs and Disabilities (SEND).

Prior to my professional immersion into the world of SEND, I completed postgraduate training in psychological therapies practice (Low-Intensity Cognitive Behavioural Therapy for Children, Young People and Families) and supervision of psychological therapies practice. This training and practice allowed for an understanding of delivering intervention, monitoring progress and the difference between what the evidence base suggests, how this is received by children and families and delivered in practice. The role of practice-based evidence became evident in this time, as my skill evolved, I was minded to replicate practice that I saw

and understood to be working effectively with each individual, through shared and co-constructed understanding with the client. This leads me to have an interest in the real-world practice implications, practice-based evidence and case conceptualisation and case study as a method of generating co-constructed knowledge. I was explicitly interested in the development of my own personal practice, taking information from taught courses, additional training, supervision, practice, and life experience to build effective rapport with clients which lead to hoped-for change in their presentation.

A curiosity around social justice emerged from my own experiences of growing up in a large city in the Midlands. This led to direct experiences throughout childhood of a spectrum of differences and challenges including but not limited to racism, sexism, socioeconomic vulnerability, and disability. There is an element of my interest that I feel emerges from my own concept of privilege, what is fair and the equitable division of resource and opportunity.

Reflective commentary: In the interest of transparency around reflexivity and carrying reflexivity through the research, I have included summarised excerpts from reflective journaling in this form. The reflective journaling that occurred across the duration of the project was recorded the form of written notes, audio voice notes and correspondence with other people. This includes reflection back to previous thinking and practice, before engagement with the present study, that has been prompted by activity carried out in relation to the thesis.

1.3 Introduction to the present study and research aims

The thesis aims to explore the professional knowledge, experiences and practices of teachers who are currently teaching children and young people with PMLD in special schools in England. This will have a specific focus upon professional knowledge, experiences, and practice regarding communication intervention and approaches for

this group of children and young people. The study will also consider the role of educational psychologists in supporting the development of communication for learners with PMLD, from the perspective of participating teachers and parents. The study aims to offer insight and implications for both pedagogic and educational psychology practice.

I will attempt to understand how communication interventions and approaches with children and young people with PMLD are selected and how they are understood as effective. I will explore how teachers gain, develop, and use their skills and experience to inform practice.

Chapter 2 : Literature Review

2.1 Chapter Overview

First, I outline how the literature search was conducted. I then explore definitions of PMLD and offer insight into the prevalence and educational context for this group of learners. I then explore the literature in relation to defining PMLD, development of communication, the assessment of learners with PMLD and commonly used communication intervention and approaches. Following this, I examine the literature in relation to professional knowledge and issues for teachers who are teaching learners with PMLD and the educational psychology role. I offer synthesis of key issues before concluding with the research questions.

2.2 Literature Search

The literature search began with use of online tools such as google and google scholar. I progressed to search the Education Resource Information Centre, British Education Index and Education Research Complete databases. Literature was found using relevant search terms, a full list of these terms can be seen in appendix one, but predominantly included Profound and Multiple Learning Disabilities, Communication, Education, Intensive Interaction, Switches, Objects of Reference, and Professional Development.

I also searched the grey literature by searching for theses using repository and Ethos. Subscription to relevant recognised organisations such as PMLDLink and National Association for Special Educational Needs (NASEN) also provided access to publications which have supported initial reading and conceptual understanding of

key issues. Social media also provided a basis for formative information gathering, searching for and reading content attached to relevant hashtags, pages and groups to uncover relevant formal and informal discourse between practitioners. This is especially relevant when researching work associated with a group of pupil's as low incidence as PMLD.

The process of reviewing the available literature on the topic educational provision and pedagogical practice and for PMLD demonstrates a dearth of research in this area. Literature which relates to the development of communication for children and young people with PMLD is limited further. Key documents such as the Salt review (2010), the Routledge companion for severe and profound and multiple learning difficulties, widely cited literature, and publications from organisations such as PMLDLink also reflect this. This lack of literature related to teaching learners with PMLD, frequently used methods to support communication and the development of communication in individuals with PMLD, has provided a significant challenge when embarking upon this review. It has been necessary to depart from both the reliability of peer-reviewed journals and specific search terms tailored only to the intended area of research, in order to gain adequate insight into the relevant issues and general picture. I have broadened consideration to include publications from charity and third sector organisations, expanded search terms to include Profound Intellectual Multiple Disabilities (PIMD) (see Appendix 1) and Augmentative Alternative Communication (AAC). I have also utilised secondary sources such as books, theses and practice guidance. I will first draw upon literature to provide a context around definitions, prevalence and educational context for children and young people with PMLD. I will then discuss the literature relevant to development of early social interactions, communication for PMLD specifically and evidence around

frequently used approaches to develop communicative skills. Finally, I will present literature pertaining to the professional knowledge and role of teachers, teaching children and young people with PMLD and other professionals, including educational psychologists, culminating in a synthesis of key issues and findings, research aims and expected contribution to the field of education and educational psychology.

2.3 What is PMLD

2.3.1 What is PMLD: Definitions

There are complex psychological, political, ethical, and philosophical factors that mean a conclusive definition of PMLD is challenging to ascertain. The World Health Organisation (2007), which is utilised internationally, outlines that those in the category of with profound learning disability have an IQ score of 20 or below. Further stipulating that there is usually an organic aetiology and other physical disabilities, limitations with communicative ability are also explicitly highlighted. Other terms used to describe a similar level of need may include profound and multiple intellectual disabilities (PMID) and Profound intellectual and multiple disabilities (PIMD).

Bellamy et al. (2010) conducted individual interviews (using card sorting activities, a questionnaire and semi-structured interviews) and focus group interviews with multi-disciplinary professionals and carers of individuals with the most complex learning needs. This was completed with the aim of co-constructing an accurate, sensitive, and acceptable definition of PMLD. After reviewing several published definitions and considering the suitability and acceptability of each contribution, the researcher and focus group concluded upon the following definition.

‘ People with profound and multiple learning disability (PMLD) have extremely delayed intellectual and social functioning, may have limited ability to engage verbally, but respond to cues within their environment (e.g. familiar voice, touch, gestures), often require those who are familiar with them to interpret their communication intent and frequently have an associated medical condition which may include neurological problems, and physical or sensory impairments. They have the chance to engage and to achieve their optimum potential in a highly structured environment with constant support and an individualized relationship with a carer.’ Bellamy et al., (2010), P233.

Mansell (2010) summarised that the term profound multiple learning disabilities (PMLD) is a description and is not a definitively identifiable standalone clinical diagnosis. There are no definitive or prescribed set of characteristics, and it is acknowledged that there are a diverse group of people who face a complex range of challenges.

When considering why it is important to be able to define PMLD, Colley (2018) outlines how the term SLD (severe learning difficulties) and PMLD differentiate between two separate categories of learners. The two categories of learner are often brought together and referred to as SLD/PMLD, to reference those with the most complex needs that may require specific provision. The Department for Education (2012) outlines that learners with SLD and PMLD both have pervasive and specific needs that, without appropriate support, create barriers to engagement all areas of the curriculum. However, the document outlines that learners with PMLD face additional challenges, citing severe cognitive impairment compounded by serious medical conditions, visual/auditory impairment, and physical impairment. The report

recognises that these increased difficulties can change the kind of support that is needed.

Those who locate their values and beliefs with the social model of disability may argue that the grouping and labelling of impairment in such a way, is othering and may only serve to create and perpetuate a power imbalance within systems, (McClimens, 2005; McDermott, 2014). However, Salt (2010) outlines that categorising and differentiating between type, severity, and presentation of individual needs, emerging from impairment can be helpful from a pragmatic perspective. One such benefit being able to quantify and account for the number of people with a certain type of need which requires a certain degree of support. This can help with service development and planning, enabling services to ensure that there is a sufficient allocation of resource that will meet needs adequately, which extended to educational settings.

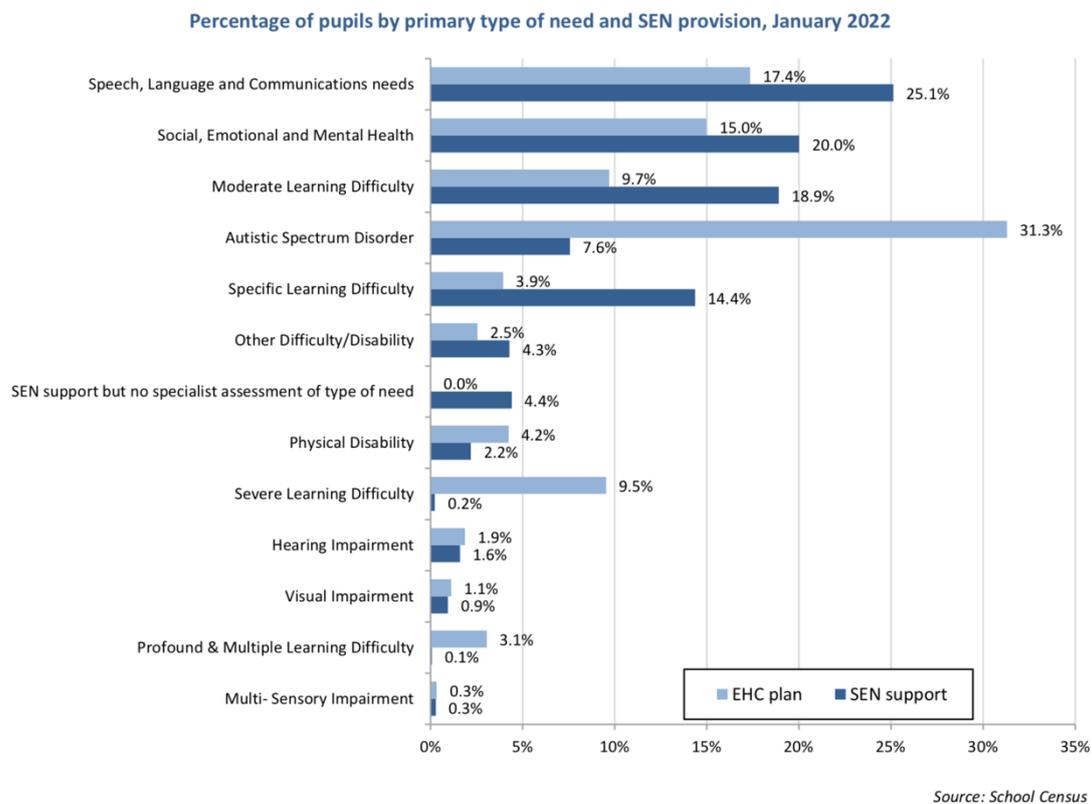
2.3.2 What is PMLD: Prevalence and Educational Context

Male and Rayner (2007) state that most learners with PMLD attend special schools. The Routledge companion (2015) comments that up to 18% of children with PMLD could be educated in mainstream settings, but inclusion in mainstream settings decreases as the age of PMLD learners increases. This may be because of the increased need associated with children and young people growing physically bigger, such as a need for fixed hoists, larger changing spaces and more space for larger wheelchairs and standing frames. Children and young people who survive into later childhood and adolescence may also have higher need for specialist support, associated with progressive conditions which increase medical need. Department for

Education (2022) statistics show that the prevalence of learners with PMLD is currently 3.2% of all pupils with SEND. This compares with 9.7% of learners who are understood as having severe learning difficulties and 18.3% with a specific learning disability.

Figure 1

Percentage of pupils by primary type if need and SEN provision.



Note. Department for Education (2022).

Emerson (2009) postulates that the number of older children with PMLD is rising at a rate of four to five percent per year on average and advances in medical care is cited as being a contributor to the rise in prevalence, as more children are surviving premature birth and have access to life preserving treatments. Douka et al. (2017)

state that causes of PMLD are vast and varied, but can include genetic disorders, brain damage following infection or other acquired brain injury.

2.4 Developing communication

2.4.1 Early social development and interactions

Understanding the evidence-base surrounding broader principles of early social development is relevant to the current topic. The very early communication skills often demonstrated by children and young people with PMLD (Grove et al., 1999) are also observed in typically developing children during infancy.

From a psychoanalytic perspective, one of the most prominent theories is that of containment (Bion 1962; Douglas, 2007) an abstract concept that refers to the '*mediation of growth*' through unconscious communication and interaction in parent child dyads. Fundamental criticism of this theory, is the lack of explicit or consensus definition from the field, pertaining to what 'containment' is (Douglas, 2007).

Subsequently, there is a lack of empirical and replicable studies that examine the phenomena or construct, the nature of training required to carry out psychoanalytical work also reduces the opportunity for those in other fields to apply suggestions from writing. However, one could argue the lack of definition and lack of emphasis on explicit and observable mechanisms that evidence, confirm, or disconfirm the process of containment, increases the flexibility of its application on a case-by-case basis. Research and individual accounts of psychoanalytical work with individuals with PMLD are very limited, however one account offered by Kahr (2017) details work undertaken with one non-verbal individual with an intellectual disability. He postulates the need for primary maternal preoccupation, interpretation of non-verbal behaviours, countertransference and perceived containment of difficult emotions are

cited, as communicative means, that helped to bring about an improved sense of growth, connection, and wellbeing for the client. This account is however single stranded and written from the perspective of one individual, rendering generalisability difficult.

From an alternative perspective, Trevarthen (1979) offers a theory of primary intersubjectivity, outlining that infants have a natural sociability that engages the interest of a willing parent to foster acts of meaning between the child and parent. Intersubjectivity underpins the phenomena of 'self-and-other' awareness, which precipitates development of formal communication, such as use of language.

Trevarthen and Aitken (2001) outline that proto conversations begin to develop in the first 8 weeks of life and are identifiable by behaviours such as mouth and tongue imitations, visual tracking and reaching.

Trevarthen and Aitken (2001) review the literature regarding intersubjectivity. In this literature review, many studies are included, however little explicit criticality of the literature presented is evident. For example, the authors assert that at 12 months old joint attention, mutual intentionality and person-person-object awareness is coming to the forefront, referencing Trevarthen and Hubley (1978) case study. This case study focused on only one parent-infant pair of participants, and compared with observations of one other infant, and one of the researcher's own children and does not reference a follow up to understand whether the participants continued the same trajectory. This study also occurred in a laboratory setting and does not control for variables such as cultural differences. Trevarthen et al. (1981) examined more parent and child dyads, but opted to exclude children with medical differences. A further key criticism of earlier studies of intersubjectivity is the focus on of the

movement of the infant, such as facial expressions and eye movement as indicators of cognitive processes. These aspects are dependent on the infant having control of these muscle groups, which may not always be the case for children with physical impairment.

Later studies of intersubjectivity have since developed to include a neurobiological perspective of interpersonal synchrony (Tronick, 2007). This provides a further challenge to generalising the findings to individuals with PMLD who often have idiosyncratic, unique and complex neurobiological profiles. However, Samadani (2021) presents findings of interpersonal synchrony during music therapy sessions, between parents and their children, who were non-verbal and had motor impairment. This study draws upon more advanced methods of exploration such as using electroencephalogram to measure brain activity. These findings would suggest that interpersonal synchrony is not always dependent on naturally empirical person-to-person interfaces, such as facial expressions and vocalisations, and that psychobiological processes supporting shared experiences and intersubjective communication, can to some degree be understood, without related motor function. Further research that draws on the opportunity to understand psychobiological processes, that does not depend on visible cues, would be supportive in understanding how experiences that foster intersubjectivity and interpersonal synchrony (such as music therapy), can be supportive in the development of early communication for both typically developing children and children with disabilities. Whilst not without flaws, collectively, studies of intersubjectivity have provided a robust springboard within developmental psychology and has led to the development of prominent intervention such as intensive interaction, all of which have been

applied to support interaction and communication with a broad population, including those with profound needs, (Bond & Navarro 2023), increasing the scope of theoretical application.

2.4.2 Developing Communication with Children and Young People with PMLD

Grove et al. (1999) write that children and young people with PMLD often demonstrate emerging and very early communication skills and behaviour. This includes gaze, subtle whole body movements, small facial movements and vocalisations, which are different to the formal communication methods used by typically developing age-matched peers. Bunning (2009) argues that communication is what happens at the interface between the individual and other people, and that effective communication is central to formation of identity and relationship, underpinning other aspects of development. Due to the idiosyncratic interaction of needs, the way in which communication develops for learners with PMLD is unclear, this is perhaps compounded by a dearth of research where this population have been included. Ware and Goldbart (2015) list sensory impairment, developmentally delayed motor skills, difficulty with attention and seizures as some of the factors which can contribute to an atypical trajectory of communication development for a learner with PMLD. I hypothesise given the unique presentation of each child with PMLD, it would be difficult to draw clear conclusions about a framework of definitive linear development for the group as a whole. The interacting factors for each individual are incredibly complex across all areas of development (Simmons, 2021). Research by Vandereet et al. (2010), found that children with SLD demonstrate more requesting communication behaviours to meet need, as opposed to communication behaviours produced which are functional in gaining the other person's attention to

share something they find interesting. This may lead to difficulties in developing shared understanding with others for children with SLD, and as such can negatively impact upon other foundational building blocks of communication, such as language acquisition. Whilst this research examines the SLD, it may be valuable in providing some formative insight into the learning experience of children with PMLD, in the absence of research specific to this group.

2.5 Assessment of communication of children and young people with PMLD

Simmons (2021) suggests that children with PMLD often have complex cognitive, sensory and physical impairment and needs, which can interact with each other in a multitude of ways leading to a truly individual profile of need and behaviour. This also likely transcends to the communicative profile of children and young people with PMLD, as cognition, senses and physical ability all contribute to the way in which one communicates. The engagement model (Department for Education, 2020), which replaces former P-scales (Department for Education, 2017) is a tool used to inform educational standards and progress for children and young people with SEN, who are working below the levels of the national curriculum and subject specific knowledge. It is reasonable to expect that almost all children and young people with PMLD will be working at an engagement level. The engagement model demonstrates how at the earliest levels of formal attainment, communication remains a central priority in relation to exploration, realisation, anticipation, persistence, and initiation. Furthermore, communication is central to improving life outcomes, safeguarding vulnerable individuals, and promoting independence. Therefore, much focus is placed on developing communication in children and young people with PMLD during their time in formal education. Progress of those with PMLD might be

measured by lateral development, demonstration of the same achievement more than once and under changing circumstances, an ability to maintain, refine and combine skills over time, demonstrate a reduced need for support or show a reduction in behaviours which inhibit learning. Assessment is supportive in identifying the existing skill set and tracking this progress over time.

Routes for Learning (RfL) (Welsh Assembly Government, 2006) was developed by a working group of practitioners and researchers with an interest in PMLD, it provides a framework which is supportive of assessing the skills and capabilities of learners. RfL marks a shift away from linear checklist assessment seen previously in P-Scales, which suggested that children and young people needed to progress upwards through a series of predefined steps. RfL emphasises the bi-directional role of communication, and as such, places due responsibility on the responsive adult, or 'communication partner' to enhance the process and effectiveness of the communication that happens between the child and responsive adult. This is a framework that sits more in line with social model of disability and places the achievement of communication upon the child's system, requiring the adults to have the skill in understanding and attuning to communicative attempts. This is in contrast to depending entirely on the child to 'achieve' communication, which may be more in line with a 'within-child', deficit or medical model of disability. Porter and Ouvry (2001) highlight the need to assess and distinguish between what the communication partner brings to the interface so that the bi-directional influence can be understood, conceptualised and additional understanding can be deduced. Distinguishing between who contributes which elements of interactions that occur, ensures that the learners' opportunities to communicate are not limited by the

communication partners method, style and assumptions. Bruce and Vargas (2007) report a higher frequency of intentional communication attempts made by children with severe learning disabilities occurred when engaging in a familiar activity and when physically nearby a responsive adult. This further highlights the need for adults to be effective in offering responsivity, consistency, and due consideration of activities on offer.

It may therefore be a key and salient aspect of the teacher's role to continually assess the quality of the communication partners contribution to interaction, in order to achieve comprehensive assessment of the communicative development for the learners. Goldbart et al. (2014) found that key adults receiving training is one of the only 'communication interventions' selected by speech and language therapists for use with children and young people with PMLD, with the research evidence base in mind. The need to upskill supporting adults, following an assessment of the child's communicative profile, may be a good example of where training is indicated as an intervention in and of itself. The need to focus on the specialist skill set of teaching assistants as support staff to this degree may be an aspect of professional practice that is somewhat unique to teachers of children with PMLD.

Chen et al. (2009) also highlights that experiences of pain, discomfort, changes in medical status and subsequent health disruption may be more regular and pervasive experience for children and young people with PMLD in comparison to those within other categories of SEND. The nature of being in pain or feeling unwell may impact upon children and young people's response to teaching and general readiness to learn. For this reason, learners with PMLD should be assessed over time by people who know them well, so that factors such as health needs and experiences of pain

can be accounted for in understanding them. Consideration of accessible and appropriately adapted environments that are most conducive to providing comfort and support for health needs should also be considered through the process of assessment. This is also salient when reflecting upon how linear, upwardly progressive assessments and checklists are traditionally conducted, and further evidences the need for more flexible and assessment frameworks that address lateral development and skill retention, when it comes to understanding communicative development for this group.

2.6 Communication intervention and approaches

Various alternative methods of communication are often employed to support individuals with severely impacted ability to communicate via conventional methods such as speech or sign language. Harding (2009) write that learners with PMLD can be provided with multiple methods of communication that layer over one another, in line with principles of a total communication approach. A total communication approach refers to using an array of methods which best fit to the individual (Mansell, 2010). This could include training the communication partner to effectively interpret communicative cues, objects of reference and switch-based intervention.

Harding (2009) conducted two focused case studies involving two key stage one children with PMLD. They found that children improved their communication skills following assessment which accounted for the children's current level of development and subsequent commencement of an intervention plan. The matching of intervention to assessment findings demonstrates the importance of understanding individual capabilities and selecting approaches that are a good fit. The assessment was conducted using informal intervention, a pre-verbal

communication schedule and pragmatics profile checklist. The intervention time was protected, regular and was conceptualised as 'intervention', which may have been supportive of implementation. The protected time element may have also helped to ensuring that time spent engaging in the intervention could be quantified.

Three of the formal teaching approaches as outlined by Goldbart and Caton (2010) study with speech and language therapists are also outlined in the Routledge companion for severe and profound and multiple learning difficulties (2015) as some of the most commonly used are intensive interaction, objects of reference and switch-based approaches. It is noteworthy that from this review of literature, there is notable scarcity of an effectiveness evidence base for any of the interventions with any group of learners.

2.6.1 Intensive Interaction

Hewitt, Firth, Barber and Harrison (2021) postulate that intensive interaction aims to build a repertoire of enjoyable interactions and intersubjectivity between themselves and others. Intensive interaction occurs between the facilitating communication partner and the learner, with the communication partner using an array of responsive strategies, similar to those used by most adults when well attuned with babies and infants. The communication partner can respond to the expressive attempts of the child which may include facial expressions, reflexes and early speech sounds. This provides the child with a schema for more back and forth exchanges. Nind and Thomas (2005) argue that the fundamental underlying principles of intensive interaction lie with the naturally occurring psychological processes in early child development. It is an approach designed to enhance the quality of attuned interactions between learner and communication partner. This intersubjectivity

provides people with formative experiences of communication with the required degree of repetition, to build upon in the context of their cognitive abilities.

Hutchinson and Bodicoat (2015) conducted a systematic literature review of effectiveness studies of intensive interaction, identifying 18 papers altogether. They comment that the studies were of a limited quality, drawing no reportable conclusions on efficacy of this approach. It may also be important to consider the nuanced and vast range of interacting needs of people who might access an intensive interaction, and how this may generate smaller scale qualitative studies with limited generalisability.

2.6.2 - Switch-based interventions

The Routledge companion (2015) outlines that switch-based interventions focus on teaching the learner a foundational understanding of cause and effect. The learner can produce a consequence in their immediate environment by activating a switch. In initial stages, the reinforcing element can be sensory, such as turning on a fan, lights or sounds. Over time learners begin to link switches to changes in the wider sensory and social environment and can use them to initiate communication, engage in communication and indicate a want or need. This foundation has the potential for some individuals to develop into introduction of more complicated Alternative and Augmentative Communication (AAC) systems such as voice generating communication aids. I have been unable to find effectiveness studies pertaining to use of switches in relation to communication outcomes specifically, as the evidence base is populated mainly by papers investigating the function of the hardware and software itself. However, switch-based intervention has links to strands of psychological theory that may support understanding implementation and potential

for effectiveness, such as classical conditioning, operant conditioning and famous behaviourism studies such as Skinner (1963).

2.6.3 Objects of Reference

Objects of reference are tactile objects that can function as an index, icon or symbol. The consistent use of the designated objects can be used to signal and give warning regarding what is about to happen in the environment, to offer choices and provide a basis for the introduction of visual cues, such as a photos of reference and other pictorial supports. Stremell-Campbell (1987) outline that object cues can help to reduce startle-behaviour and other unhelpful behaviours that might challenge others. Cues work to signal to the individual a change is about to happen, therefore reducing the uncertainty of the environment and consequentially behaviour that challenges others. It is also outlined that early cues used can be closely tied to signalling care needs. The subsequent achievement of physical comfort of the learner is likely to increase capacity for engagement.

McLarty (1997) comments that due to lack of central standardised and researched practice, reliable and uniform instructional material available for practitioners using objects of reference is limited. This means that inexperienced practitioners or those looking to use objects of reference for the first time are at risk of misunderstanding the theory, required core conditions and context dependant factors for successful implementation. Despite seeing and hearing objects of reference being repeatedly referred to and recommended by professionals, including educational psychologists, I have been unable to identify any literature that provides a current picture into effectiveness of objects of reference, or the frequency, duration, agreed method and optimal conditions of its use.

2.6.4 Communication intervention and approaches; in the absence of a robust research evidence base

Goldbart et al. (2014), report that when using the Eccles and Mason grading system (Eccles & Mason, 2001), none of the aforementioned approaches have an extensive enough evidence base to classify as having the highest grade of evidence to constitute recommendation of use in health settings. Switch-based interventions have a middling quality evidence base, with intensive interaction starting to accumulate more evidence for learners with complex needs. All other commonly utilised communication interventions for learners with PMLD described in the study by Goldbart et al. (2014) are classified at the lowest grade. It was also found that clinical experience and practice-based evidence of the speech and language therapists were often the most significant factor when it came to selecting an intervention or approach, and that the research base is rarely referred to.

Some of the most commonly used communication interventions or approaches having a poor effectiveness research evidence base, provides a rationale to conduct effectiveness research into methods of developing communication for this group. A more robust research evidence base could lead to emergence of more standardised and more consistent practice; however size and scale of such research lies outside of the remit that the timescale and resource of this project would permit. However, I have been unable to locate a study similar to Goldbart et al. (2014), which works to help the field understand the underpinning rationale that teachers of learners with PMLD use to inform decisions about which pedagogical practices relating to developing communication, specific communication intervention or the methods of communication they opt to employ. Further to this, I have been unable to uncover

any study that provides insight or current picture of how teachers in England support the development of communication in pupils with PMLD formally or informally, how teachers reach decisions about which approaches are most suitable, which skills knowledge and experience teachers are using to help them, which other professionals help or which methods of communication are being used most frequently.

2.7 Professional knowledge of teachers working with learners with PMLD

Salt (2010) highlights that children with PMLD present with some of the most complex needs across the entire education sector. These children require the most specialist and expensive support, which adds an economic argument for understanding best practice. The number of learners with PMLD now attending schools is increasing, which is in part, attributed to medical advances which preserves the life of more children through infancy, to school age and beyond. The pragmatic challenge of providing specialist education to more children who need it, is compounded by an ageing population of teachers working in special schools, with 45% of headteachers and teachers in special schools are reported to be aged over 50 years old. This generates a significant practical and economic issue in ensuring availability of appropriate provision for children in the future. Salt (2010) suggests a need to focus on the quality of initial teacher training, and robust support for teachers who make the decision to commence work with children and young people with PMLD. The report also outlines the need for teachers to be able to embark on specialist professional development journeys, which could include accessing additional funded modules of training, and resourcing to ensure high quality continuous professional development. This suggests that insufficient opportunities

for new teachers to develop the necessary skills to teach children and young people with PMLD have been commonplace during Initial Teacher Training (ITT) and difficulty accessing appropriate continuous learning, is problematic in recruiting and retaining this workforce.

Jones and Riley (2017) write about the professional learning experiences of teachers who are teaching children with PMLD. They found that the most frequently referenced means of professional development was opportunities to learn from and alongside others (such as peers, families, and other professionals), when compared with technical learning from training, or from self-inquiry and research. This paper continued to make references to research from general mainstream pedagogy and teacher development principles and failed to directly capture and highlight the differences that emerge from teaching children with PMLD.

Due to the relatively low incidence of children with PMLD, it is my observation that these learners can often remain with the same teacher for large periods of time, and sometimes for their entire education. This means that the child's teacher holds one of the most significant and enduring professional positions in their life. It is reasonable to expect that across long periods of involvement, teachers build meaningful and trusting bonds with children and young people and their families. The teacher's professional knowledge which can be shaped by a multitude of experiences, engagement with training, motivation and attitudes is a highly influential factor in decision making that occurs within any discussion between the team around the child. It is therefore useful to understand the professional knowledge and development of this group of teachers, as they are a distinct professional group

whose working lives and professional journeys are largely undocumented and underrepresented in research and potentially, misunderstood.

Salt (2010) found that teacher who choose to teach children and young people with PMLD, have often had previous experience of individuals with complex needs and disabilities before, either personally or professionally. He also comments that there is a longstanding assumption within the teaching profession, that working with learners with complex special educational needs and disabilities might not require the same level of skill as mainstream pedagogical practice. Whilst this gives insight into difficulties associated with recruitment and retention of teachers who are interested in developing within this specialism, it also suggests that the professional knowledge of teachers who are motivated to work in this area, is at least in part developed outside of formal teacher training and may have other personal meaning or motivating factors. These factors may not yet be being accounted for, when considering recruitment drives and the professional development needs of this workforce.

Chard (2004) writes that professional development and sustainable changes to teaching practice, does not emerge from engagement with training alone.

Practitioners need to identify progress and improved engagement of students, to appraise and find value in the changed practice, Stephenson et al. (2011) comments on the need to keep the science of professional development at the centre when considering the professional development of teachers working with children with complex needs, to increase the likelihood of new practice being embedded.

Boardman et al. (2005) postulate that practitioners need to see new practice as

feasible. Methods and practices need to be perceived as compatible for the specific needs of their students to warrant an authentic attempt at implementation.

Furthermore, teachers reflected that they benefitted from new practices being modelled in their own context and classroom, and having the opportunity to receive feedback on their initial attempts at practice. This feedback is likely more challenging to gain from learner with PMLD, as novel learning activity typically needs a lot of repetition to become established or part of the learner repertoire of understanding. Therefore, it can take a long time for progress to be evident to the teacher, in order for it to be reinforcing and for them to be motivated to replicate the new practice. The Routes for Learning (Welsh Assembly Government, 2006) training material preface, comments on the challenges often faced by teachers in sourcing and accessing appropriate continuous professional development opportunities. The often nuanced needs of learners with PMLD coupled with relative professional isolation may lead to significantly disparate classroom culture, priorities and practice for teachers, even between themselves and teachers of PMLD and other categories of SEND in the same school, which also may lead to a lack of opportunity for peer support. Salt (2010) commented that school leaders also report specialist training relevant to education for PMLD can be difficult to come by. An inconsistent national picture in the local authority offer can lead to the need to outsource to private companies which is expensive, unsustainable, and sometimes lacking in quality.

The conditions needed for teachers of learner with PMLD to develop and make changes to practice, such as demonstration within classroom, prompt feedback and viewing the new practice as feasible may not be easy to meet when faced with the

practical limitations of accessing professional development opportunities such as the availability and cost of specialist training and infrequent peer supervision.

Shipton and O’Nions (2019) concluded that whilst many of the participants possessed the skills identified as needed to work effectively with PMLD learners in school, they were uncertain about what they could offer. Participants were unsure of what good provision or practice would look like. Staff felt unsure about what was expected of them, how to recognise progress or success in their learners and reported low professional confidence. A need for more in-depth technical and practical understanding of early child development was identified, irrespective of the age of the children the staff were working with. This study was conducted in only one school with 7 participants. The report does not give an outline of the methodology or evaluation technique employed, and has not been published in a peer reviewed journal. However, this study offers a snapshot into the key issues and current climate, which is otherwise difficult to ascertain from the evidence base. It is unclear from the literature how teachers of learners with PMLD are identifying and engaging in their general professional development, or their professional development in relation to understanding and improving communication approaches and teaching.

2.8 Educational psychology contribution

The role of educational psychologists and their work with learners who have PMLD is underrepresented in literature. From utilising the search terms ‘*PMLD or Profound and Multiple Learning difficulties*’ and ‘*educational psychology*’ to find papers in Education Research Complete, British Education Index and ERIC databases utilising EBSCOhost, only 7 papers were retrieved. I was then able to look using synonyms to describe the same topic, the expanded and terms that were then systematically

used, searching the University of Exeter library databases (see Appendix one for a table of search terms used). Further reading of citations listed in key pieces of research, such as Goldbart (2014), contributed to wider understanding of underpinning principles and issues.

Winter and Bunn (2019) conducted a survey of educational psychologists in the United Kingdom to understand the current picture of their contribution to special schools catering for learners with PMLD. Notable disparity between priorities and practice was found across services and locations, and little uniformity or standardisation in service delivery was identified. However, the majority of work reported to have been completed fell into the category of statutory work or individual casework. Less than 10% of the 207 respondents, reported a special interest or as possessing specialist knowledge in relation to supporting PMLD, despite approximately 66% of educational psychologists stating they had three or more years' experience working with PMLD. Participating educational psychologists reported that they did not have the necessary degree of confidence, knowledge and experience to approach work within specialist provision for PMLD. Educational psychologists also were found to hold a perception that they had little to offer, and that the knowledge and skills of teachers and other professionals involved far outweighed their own. A sense that special school staff and other professionals doubted educational psychologists ability to contribute, which perhaps perpetuates avoidance of authentic engagement with this work for some educational psychologists. When discussing the potential of work that could be done, educational psychologists broadly struggled to generate ideas and suggestions, but did feel that they would like to offer more supervision to staff in relation to the emotional impact of

working with children with PMLD, as respondents believed there would be a need for this amongst school in these settings. Participants also generated ideas regarding potential contribution laying within their expertise in areas such as attachment, metacognition, functional analysis, frameworks for practice and understanding, interpreting, and applying the evidence-base. I was unable to locate any research that examined the special school teacher's perceptions of the educational psychologist role in the context of supporting children and young people with PMLD and the people within their system. Furthermore, as the majority of children and young people with PMLD are likely to have been granted an Education Health and Care Plan (EHCP), it would be interesting to know how educational psychologists assess, formulate and recommend provision regarding communication and interaction in psychological advices, which are usually generated as part of statutory work. Discussing subsequent approaches to the implementation of the advice or EHCP provision by special schools would also be of interest. I have been unable to find data that would provide this insight into implementation of plans in a special school context.

Porter and Ouvre (2001) discuss the importance of understanding communicative intentions and drawing inference from subtle communication cues. For children and young people with PMLD, it is vital to check and affirm communication attempts by triangulating observations and understanding, with others who know the child or young person very well. Porter and Ouvre (2001) use case studies to demonstrate how a validation approach can elicit a variety of opinions and perceptions of people who know the child or young person well, from this, those adults can compare, contrast and provide a degree of criticality as a team, sharing individual knowledge

they each hold about the child or young person and come to co-constructed conclusions about the child or young person intended to communicate. This joined up approach perhaps allows for more precision than the perspective of just one communication partner. Considering applied practice of this, Pearlman and Michaels (2019) discuss how this approach of triangulation and asking for the opinion of several people well known to the child or young person, leads to a higher degree of reliability and confidence in accurately understanding the wishes of children and young people, in the instance in developing an EHCP. Pearlman and Michaels (2019) also employed the use of video footage in order to enable different professionals to review the interactions of the children and their interaction partner at different times. The use of video in this context may demonstrate one means of overcoming the logistical barriers of gathering a large group of individuals all together in one space at the same time. The use of video also allows for repeated review to gain clarification, a new perspective at a different time or further meaning and sense-making. Also central to consideration are the writings of Ware (2011) who comments on the difference between children and young people agreeing to presented options (which are limited and presented in line with what the adult anticipates might be important), and sharing their own unrestricted wishes, feelings or views. She argues that the simple agreement or assent of children and young people is not the elicitation of a 'view' and should not be described as such. Harding (2009) reports on the process of ascertaining the views of children with PMLD and the complexity of needs and subsequent individualised approach which is required in order to be successful. She writes that educational psychologists are well placed to support this, at an individual and group level, but does not offer specific suggestions as to how this could be practically or logistically done, or signpost to exercises or

training that would foster confidence in this work for educational psychologists. It is noteworthy that in this instance the author locates her positionality as being a specialist educational psychologist, so in her writing, may be assuming the knowledge of the wider professional, and drawing conclusions based on her own expanded skillset and reading. It may therefore be relevant to hold a degree of criticality about the transferability of Harding's (2009) suggestions, in light of Winter and Bunn (2019) findings regarding uncertainty and low confidence in a sample of 207 educational psychologists.

Whilst these published findings do not directly link to educational psychologists selecting, implementing or delivering communication intervention themselves, or give insight to the role they have in the professional lives of teachers carrying out this work, it does provide some basis of understanding that educational psychologists skills are understood as valuable, and that there is potential for more meaningful work with learners with PMLD and people in their systems, including teachers. It also highlights points of consideration that might guide educational psychologists in approaching work and developing best practice when trying to gain the views of children and young people with PMLD. The findings tentatively suggest that educational psychologists might be able to support teachers in their specialist practice, through use of problem solving, consultation and supervision which are features of a typical educational psychology offer. There is also some suggestion that the educational psychologists can work with the researcher evidence base to interpret and translate findings so that they are accessible and more palatable to teachers and other key individuals, however, the lack of effectiveness evidence base around communication intervention means that there is limited content for

educational psychologists to interpret and relay. It might be that educational psychologists need to be creative in their utilisation of research to formulate working hypotheses based on information gathered and that in line with Goldbart et al. (2014), applying practice-based evidence to find supportive and helpful measures in a specialist context.

2.9 Synthesis of key issues and findings

There is paucity of research and literature which examines the education of children and young people with PMLD in all aspects. Of the discourse that is available, it is evident that conceptualising learners with PMLD as belonging to their own distinct group is beneficial due to the extent of the need, and the unique, complex profiles of behavioural, physical, cognitive and health differences for each child and young person, which usually requires a wholly individualised approach, with implementation of specialist support to facilitate engagement. Imray and Hinchcliffe (2012) and Jones (2004) suggest that distinct kinds of teaching, distinct and separate pedagogies and curriculum are needed when teaching children with complex needs and this group of teachers have traditionally not been well represented in research, From the literature linked to professional practice of those working with learners with PMLD in some capacity there is a consistent theme of uncertainty and low professional confidence. Also, assumptions that other people or professionals are better placed or better equipped to help in meeting the needs of this group, and a difficulty in sourcing and engaging with appropriate and relevant professional development opportunities such as training and networking. The Routes for Learning (Welsh Assembly Government, 2006) forward outlines that teachers of children and young people with PMLD are often professionally and physically isolated, with lack of

opportunity for authentic and well-matched peer support. It also highlights that professional development opportunities are both difficult to source and expensive which reduces accessibility. This may be further supported by Winter and Bunn (2019) findings that educational psychologists are also low in confidence when approaching PMLD learners and may not have historically had a presence in special school, which may have reduced the provision of consultation and supervision.

It is clear from the literature that the role of attuned communication partners and triangulating information between adults who know children and young people well are features of identified best practice when it comes to developing communication with learners with PMLD. I have been unable to ascertain from the literature finer detail that would support instruction and implementation of these approaches, such as ratio of children to staff, level of training needed and the typical responsibilities placed upon a team working directly with children and young people in a PMLD classroom or setting. It may be that teachers are responsible, not only for planning and implementing direct work which fosters development of communication skills in each learner, but also for upskilling and developing teaching assistants in technical and relational skills. Managing a relatively large team of adults in the classroom, and supervising the specialist practice of these seems like a somewhat unusual feature of a main grade class teacher, when compared with the role of their mainstream colleagues. This again highlights potential differences in the core foundation of a teacher's role in this context, relative to that of a mainstream teacher. The subsequent professional knowledge of the workforce and an absence in understanding their professional development needs in general initial teacher training, policy and practice.

2.10 Summary

There is limited literature which indicates the effectiveness of some of the most used communication interventions or approaches for children and young people with PMLD. This creates practice implications as in the absence of research-based evidence, it would be helpful to understand how decisions to practice in any given way are reached by teachers of this group. Further to this, I have been unable to identify literature that clearly and collectively defines the role of educational psychologists in working in provision and settings where learners with PMLD are, in respect of improving communication and interaction outcomes for this cohort, how the role of the educational psychologist is perceived by the teacher, parents or other key stakeholder, or how communication and interaction provision in EHCPs, (which are often contributed to by educational psychologists through written advice) are interpreted and put into practice within schools accommodating complex needs. Further to this, the literature suggests that programmes of initial teacher training do not always prepare teachers thoroughly to teach those with complex needs, it would be beneficial to better understand the professional journey towards formation and continuous engagement with knowledge acquisition, that is supportive of practice for teachers who work with PMLD. It is not clear from the literature reviewed, how continuous professional development needs for this group of teachers are identified or met contextually across different key stages, schools, local authorities, and geographical areas. These gaps in the evidence base are the gaps from which my research questions are generated and are therefore likely to be addressed in part by the findings of my project. Subsequently, the aims of my project are to gain further understanding into the professional knowledge of teachers working with children and young people with PMLD, regarding communication intervention, teaching and

approaches. I would like to explore what is guiding selection and implementation of communication teaching and approaches, how teachers are enabled to develop relevant skills and if or how teachers draw upon multiagency sources to inform communication teaching for learners. These findings would be contributory in that they could give an insight into current practice that is not well represented in the literature, be used to inform initial teacher training programmes, guide, and identify the types of additional training for teachers, and could form points to consider and stimulate reflection for educational psychologists regarding their work with learners with PMLD in a variety of domains. Subsequently, my research questions are:

2.11 Research Questions

RQ 1 - How do teachers select communication intervention/approaches for pupils with PMLD?

RQ 2 - How do teachers and parents understand where communication intervention/approaches are effective for pupils with PMLD?

RQ 3 - What are the barriers to teachers implementing effective communication intervention/approaches for pupils with PMLD?

RQ4 - How do teachers and parents come to learn/know how to develop the communication of pupils with PMLD through intervention/approaches?

Chapter 3 : Methodology

3.1 Chapter Overview

Within this chapter I will outline the research design. I will begin by outlining philosophical underpinnings, which feed into ontological and epistemological considerations and subsequent decisions around the methodology and methods. I will then outline case studies, rationale for inclusion of participants in the boundary of the case, data collection, the case study protocol and methods, data analysis, validity, and authenticity, I will finish by outlining matters related to ethics.

3.2 Philosophical Assumptions

Ontological and epistemological positioning are important to connect and engage with as a researcher, as they are key in governing the direction and the wider paradigm in which the research is situated. Guba and Lincoln (1994) argue for an order of influence, whereby ontology determines epistemology which in turn, determines methodology and method. Whilst Braun and Clarke (2022) affirm that designing research is not always simplistic and linear, it is helpful here to set out ontological and epistemological commitments, from which the chosen methodology descends from.

Lundh (2018) describes how ontology references the way in which we understand and conceptualise reality and truth, and how various aspects of reality and truth link and relate to one another. Bryman (2004) describes how ontology is often considered as having fundamentally polar concepts. At one end of the spectrum, belief that an objective truth or reality exists irrespective of the positionality or presence of an observer (objectivism), and the other end, the belief that reality only

exists in the subjective context and understanding of the observer or a group of observers (constructivism). As a researcher I believe that truth exists exclusively in the context of the observer or group of observers and that concepts of reality would differ to the individual, between individuals and at different time.

Epistemology references the way in which we understand and conceptualise knowledge and what is possible to know, and how you can come to know it. Social constructionist epistemology relates to the belief that knowledge is generated and co-constructed, based on the perceptions of subjective reality understood by individuals interacting as part of a social group. Conversely, belief in an objective truth lends itself to positivist principles. In line with my ontological stance, I believe that knowledge is generated by the social group in relation to subjective understanding of what is true, Braun and Clarke (2022). Merriam (1998) details that the researcher brings their construction of reality, which interacts with the constructions of reality formulated by others, of the phenomenon being studied. Therefore, the final product is the researcher's interpretation, of the participating other's interpretation of reality. I believe that this relativist view is the most accurate way of conceptualising the research process and aligns with social constructionism.

As a further reflection, Simmons and Watson (2014) argue that dominant conceptual approaches in psychology such as behaviourism and cognitivism, frequently applied to try to understand the experiences of children and young people with PMLD, are too linear and simplistic. Simmons and Watson (2015) write that postpositivist and methods, stemming from realist philosophy, which often underpin cognitivist and behaviourist studies, fail to capture the experiential essence of those with PMLD. They

reference the importance of people who have had the benefit of longitudinal relationships (who have gathered information over time) with individuals with PMLD, such as teachers and families of children and young people from this group. This reinforces my decision to employ a relativist, constructionist and qualitative approach to this project, as although I am not directly conducting research with learners with PMLD, it is evident at this stage that flexibility and rich descriptions will be supportive of understanding nuanced, multi-layered and complex issues.

3.2 Research Design

In this study I explored the professional knowledge relating to communication intervention. approaches and practices, of teachers currently teaching children and young people with PMLD through multiple exploratory case studies.

3.2.1 Case studies

Yin (2016) outlines that case studies are an empirical method that investigate the contemporary phenomena or 'the case' in depth and in its own real-world context, using multiple sources of evidence. He also postulates that this may be especially relevant when the boundaries between the phenomena and the context may not be clearly defined. Yin (2016) also outlines that the form of research question, degree of control over behavioural events and the focus on contemporary events should also guide understanding of whether case study methodology is appropriate. The current study asks 'how' questions, requires little to no influence over behavioural events in the field and focuses on the current phenomena of professional knowledge in a specific context, which affirms the use of case studies as an appropriate methodology.

Yazan (2015) discusses the differences between three of the most prominent approaches to case study and their differences. Through considering my own epistemological commitments to constructivism, and the notion that positivist research principles don't serve or support research pertaining to nuanced experiences, life-worlds, realities and truths with PMLD, I have selected Stake's (1995) case study methodology as the most appropriate to guide this study.

Conflating features of case study methodology that come from different philosophical underpinnings may have implications, as the methodology which descends from one epistemological and ontological schools of thought, is not always applicable to the next. However, Yazan (2015) highlights there are elements from different established case study methodologies that will need to be employed to best represent the case at hand, but requires due consideration to ensure fidelity to methodological stance.

3.2.2 Research settings and rationale for inclusion of participants

The boundary of the cases in this study was a qualified teacher, a parent of a child taught by the qualified teacher, and their child as a co-participant. Parents were included within the boundary of the case study, despite the aims of the study focusing on the professional and practice of teachers, there were several factors that determined this decision. Children and young people with PMLD are often heavily supported by their immediate family, children, and young people with PMLD would not been able to use formal language to describe and conceptualise their experiences now or over time, whereas the parent is able to act to some degree as an agent and advocate for their child's educational experiences. As outlined previously, it is my observation that children and young people with PMLD often remain with the same

teacher for several years, meaning parents of children taught by teacher participants have an extended opportunity to experience and get to know the teacher's proclivities, knowledge, and practice over time. Children and young people with PMLD are firmly located with a system of support and conceptualisation of 'how things are going' are more likely to be formed through the lens of the parent. The purpose of interviewing parents is to gain an insight into how children's involvement with school life, influences communicative outcomes across contexts. Parents offer a source of triangulation in conjunction with the data generated by the teacher interview and reflection. The role of the home school relationship is also helpful to understand.

Inclusion criteria for teacher participants was; to have qualified teacher status and currently teaching children and young people placed by local authorities in England. Participating parents were initially approached by teacher participants selected on the basis that they had a child with PMLD, currently being taught, by the participating teacher. Children and young people were taught as part of the study by their own teacher. They had signed parental consent and assented to participation in the same way they would normally assent to engaging in learning at school. Issues of consent and assent are discussed further in the ethics section below.

3.3.3 Recruitment of participants

I made initial contact with some participants during informal visits to schools and settings, who indicated an early interest in participating in the study. Therefore opportunistic sampling as described by Jupp (2006) was utilised, three teacher participants were recruited in this manner and were sent the participant information sheet and consent form directly. In order to increase the numbers of teacher

participants with a further ranging and more representative sample, I shared my recruitment flyer on social media, with a single post on twitter and a single post on a Facebook page called 'Supporting PMLD Teaching and Learning'. The post included the research flyer (and an invitation to register initial interest using a Qualtrics form, appendix three). Twitter analytical insights allowed me to understand that my Twitter post had 11,486 impressions, 342 engagements, 51 retweets and 37 link clicks. Full interest was registered by 15 teachers from all over the British Isles. All those who registered interest were offered the full information brief and consent form (see appendix seven), and from this process a further two teachers progressed all the way through recruitment.

The participant teachers, once recruited, were then provided with the information brief and consent forms to disseminate to the parents of children and young people in their class. Parents returned the signed consent form with their contact details, all teacher participants had at least one parent volunteer to be interviewed and who were consenting to their child being taught as part of the study. I contacted the parents individually to arrange an interview date. Parents were invited into school to a private space which was pre-arranged through the participating teacher. All five teacher participants, parent participants and five children and young people co-participants across five case studies who reached this stage were included in the study and nobody withdrew.

3.4 Data collection

In summary, data collection procedures included completion of the recruitment questionnaire, arranging (via telephone or email) a data collection visit to the school

across one or two days (depending on the availability of participants). On the day of the visit a semi-structured interview with the teacher for an hour occurred first. This was followed (on either the same or a second day) by video-recorded observation of the teacher engaging in teaching practice with a child or young person for 15 minutes, followed on the same day by video stimulated reflection with the teacher, for 45 minutes. A separate semi-structured interview with the parent, for up to an hour, on either day of the visit. All data were collected in person as opposed to online, this felt important given both my philosophical positioning and the value I place on the knowledge that is generated and understood between the participants and myself as the researcher. I was keen to ensure mutual clarity was achieved through sitting in the same space, being able to pick up on non-verbal cues and generate authentic rapport with participants. Visiting in person was also supportive of my understanding of context, seeing the layout of the school, the wall displays, the resource within the classroom and meeting other people informally gave me a visuospatial and social reference point, to locate the people within. This involved substantial travel across England. The travel transpired to offer protected time and space surrounding the data collection, to consider my understanding and reflect on the experience of meeting all of the participants. Interviews took part within private rooms arranged by the school, and the practice observation which generated content for video-stimulated reflection took part in the classroom, or in a private room arranged by the teacher participant, if this formed part of typical practice for them. The semi-structured interviews for teachers, took place before the practice and video-stimulated reflection. Completing data collection activities in this order allowed teacher participants to better understand the purpose and focus of the study and to allow development of rapport between the participant and the researcher through engagement with a semi-structured interview.

Practice observation and video-stimulated reflection may have been experienced as more exposing or evaluative, without the interview time spent together first.

3.4.1 Case study protocol

The full case study protocol is available to view (see appendix two). The steps taken following recruitment for each case were mapping case context through visiting the setting in person and gathering of initial information using a Qualtrics survey (see appendix three) semi-structured interview with the teacher (see appendix nine) observation of practice and video-stimulated reflective interview with the teacher and a semi-structured interview with the parent (see appendix 10).

3.4.2 Mapping case context

Stake (1995) argues that there is no specific point in which data collection begins, therefore, my understanding of the case context has been built informally and organically through engagement with various experiences in the lead up to formal data collection. In this instance, this included several visits to special school settings prior to the conceptualisation of the research, informal conversations with teachers working in mainstream schools, teachers working in special schools with other groups of learners and teachers working with learners with PMLD. Experiences through my own work in a short breaks centre which accommodated some children with PMLD and discussions with other support staff, began to shape my thoughts.

More formally, a recruitment questionnaire using Qualtrics software was given at the point of recruitment. The questionnaire had questions related to initial teacher training, geographical location, additional training courses, years of experience as a teacher,

and previous personal and professional experiences served to offer more information about the origins of professional knowledge that may have been acquired and gave case base and context. A QR link and hyperlink was attached to the recruitment flyer and a hyperlink was attached to the tweet that was shared on twitter. Those who were interested in participating in the study filled out the questionnaire and submitted their contact details with it. No analysis was conducted on this information, and it served solely to support the outlining of the case context and plot out the geographical location of participants given that I would be collecting data in person.

Broader information about professional context was gained from readily available sources such as government policy and statistics, school policies, statements of purpose, and websites. Reference to documents or contextual information throughout each interview was also noted down and followed up (for example, where participants referred to practice guidance from charities, government reviews of policies, development to school policies), to help further inform the context of each case as a parallel process. Through the process of collecting data in person, I was able to travel to the schools and see features of the local area, spend time physically in the schools and understand the context of the physical space and other resources on site, understand environmental features and adaptations which could be pertinent to practice, the geographical context of the school and meet other key members of staff who offered informal information about their experiences of working within the same spaces and context as the participants through informal conversation.

3.4.3 Semi-structured interview with Teachers

Stake (1995) describes interviews as the main road to multiple realities, indicating that interviews have a role in gaining the descriptions interpretations of what others have experienced and seen that I as the researcher have not. Stake (1995) also states;

“It is awfully difficult to steer the most informative interviewees on to your choice of issues. They have their own.” – p62.

With this concept in mind, semi-structured interview schedules were drawn up using Tomlinson’s (1989) hierarchical focusing. Tomlinson (1989) highlights how asking the most open-ended questions gives participants the opportunity to give as much context as possible, to highlight their own issues, before being guided by narrower questions formulated by the researcher. The researcher questions emerged as a result of concept mapping, which in this instance is born from the literature review and case issues the I perceived from reading and concept mapping. In doing so, I allowed the participant to engage with broad and open-ended questions first, which gave the opportunity for information, perspective, and new realities of the participants (which may not have been identified or considered in the concept mapping phase) to be discovered. This interview schedule was piloted with a teacher who had previous experience of teaching PMLD, but was not eligible to participate in the study as they were not currently teaching learners with PMLD, answers given were rich and the questions elicited a wide array of information that was pertinent to the research aims, small amendments to wording and phrasing were made to the final schedule. Participants who did engage with the final interview schedule frequently offered comprehensive information that answered questions embedded further down in the hierarchical schedule, without prompting. I found this to affirm that the top-down

concepts (which descended from concept mapping) were comprehensive, functional in design and supportive of my intention to explore the salient case issues.

The focus of the interview is to elicit and gather data about all of the research questions. Questions are pertinent to the salient case issues of the bounded case (Stake, 1995). In this instance, the bounded case is the teacher, a parent of a child taught by that teacher and children and young people taught by the teacher as co-participants, as outlined in 'inclusion of participants' section 3.2.2. Stake (1995) discusses how he views interview transcripts to be of little use, and that verbatim accounts of interviews aren't necessarily valuable, as it isn't precisely what was said in an interview, but what was meant and understood between the participant and the researcher that is most important. This again places explicit value on the constructionist epistemology, as the co-constructed understanding is central to the researcher process. However, due to the age of Stake's writing and in the interest of accountability, accuracy and in line with my ethical approval, interviews were audio recorded, transcribed, and offered to participants for checking. Stake's (1995) suggestion of producing a written facsimile as soon after the interview as possible, which outlines what the researcher understood as being meant from the interaction, an 'interpretive commentary', was also written upon the same day as the interview, before transcription of the audio. This exercise being bound into the data collection protocol also merged with the beginning stages of familiarisation in thematic analysis (Braun & Clarke, 2022), which will be described further in section 3.5.

This interview schedule was piloted by a teacher who registered interest but was not eligible to take part in the study due to currently not teaching learners with PMLD. The

pilot elicited a broad range of views relevant to the aims and research questions. The teacher reported that they understood all of the questions, there were some minor changes to words and phrases, but the structure and questions remained unchanged following the pilot.

3.4.4 Practice observation

Stake (1995) writes that observations aid the researcher to have a greater understanding of the case, and that observation of phenomena identified partly by the key issues, supports acquaintance with the case. He outlines that observations should remain somewhat 'shallow' remaining focused on key categories, events, background and context and that greater analysis during observation may steer the researcher in a direction which leads to other key issues being missed. For this reason, an 'incontestable description' should be recorded to support analysis thereafter.

Teachers were asked to deliver 15 minutes of communication intervention, approach or teaching to the child whose parent had given consent for them to be taught as part of the study. Teachers were encouraged to teach as they normally would, but primed to understand that they would be engaging in video-stimulated reflection thereafter. Teachers were asked to try and tune in to their thoughts, feelings, 'in-action' and 'on-action' reflections when delivering the intervention, approach, or teaching (Schon, 1983) with an awareness that they would be asked to share this thereafter. The teacher's practice was video recorded to provide a visual stimulus for the participants to engage in reflection described further in 3.3.4. The video was not retained to form part of the data set, but did in its nature, create the 'incontestable description' of what happened as described by Stake (1995), forming the basis for the stimulated

reflection. As the aim of the research is to explore rather than evaluate the knowledge of teachers, I did not conduct any analysis or evaluation upon the practice itself, however, watching the teacher practice did enhance my understanding of the context. The video recordings were created to aid the teacher's video stimulated reflection and were deleted immediately on the same day, before I left the school. The video did not form part of the data set itself.

3.4.5 Video-Stimulated Reflection

After the observation of practice occurred, the video recordings were used to support the participating teachers in a video stimulated reflection. Ericson and Simon (1980) outline that stimulated recall procedures should be carried out soon after the actual event as possible, for this reason, observations were arranged and carried out on the same day as the stimulated reflection.

Stough (2001) outlines that 'think aloud protocols' have long been used in psychological research, as a way of understanding cognitive processes involved in engaging with a task. She explains that the use of stimulated recall can be used as a way to capture information about cognitive processes, in situations where think aloud protocols are not possible. This is relevant here, as teachers would be engaging in the delivery of teaching to children therefore it would not have been appropriate for them to think aloud about the child. It would not be possible for them to pause to comment and elaborate upon their practice, what they are thinking or notice about the child's responses, without it being disruptive to their applied practice in the moment.

Braak et al. (2018) argues that there is value in eliciting tacit or 'implicit' knowledge for several reasons: it can cue reflective processes, can aid constructions of artefacts that can aid practice moving forward and allows for implicit knowledge to be communicated to others. Barton (2015) argues that elicitation techniques using visual stimulus prompt participants to project knowledge that cannot be gleaned from interviews alone. For the purpose of this study, which aims to explore the professional knowledge of teachers working in this specialist capacity, eliciting tacit knowledge for the purpose of making reflective thoughts and other cognitive processes empirical is anticipated to yield valuable data and insight. Yinger (1986) states that cognition regarding teacher's practice is complex and needs to be supported by other data collection methods such as interview to overcome limitations. Interview is already an existing part of this project design.

Traditionally, stimulated recall has focused on asking participants for an account of what they were thinking at the time of their practise, with a view to capturing cognitive processes, alongside the behavioural processes that are observable to the researcher. Braak et al. (2018) argue that shifting the focus from video stimulated recall of thoughts alone, to video stimulated reflection encourages not only metacognition, but for the individual to make sense of both their thoughts and behaviour, giving participants the opportunity to *'review events in which they have participated, as outsiders'* p389. It also gives the researcher the benefit of insight into tacit knowledge, and generates deeper understanding between the researcher and the participant. This method of data collection lends itself well to the case study methodology and research with constructionist ontology, as this method elicits both the content of concrete cognitive processes regarding the teacher's practice, but also asks about sense making and the

individual's constructed meaning behind their thoughts and actions which allows room for values, opinions and emotions that may also influence practice. This can support the joint understanding of the participant and researcher.

Braak (2018) outlines that researchers can take the following steps to support video stimulated reflection, as the process can feel somewhat intimidating and exposing. These suggestions were upheld during data collection and analysis in the following ways:

- Acknowledging the non-neutrality of myself and avoiding leading and evaluative questions, as I am not, nor have I ever been, a teacher myself.
- Secondly, using apt prompts to minimise disturbance of sense-making. Researcher should be practiced in apt prompts – open ended questioning is a normal part of a psychologist skill set, as is sitting with silence.
- In the analysis phase, the interview is an opportunity for collaborative meaning construction. The focus on collaboration and co-construction of knowledge that is central to video-stimulated reflection is therefore a fitting method for constructionist case study research and reflexive thematic analysis a fitting framework for analysis.

In the same manner as the semi-structured interview, the teacher's reflective interviews were audio recorded, transcribed, and offered to the participants for checking. A written facsimile was also completed which highlighted my understanding of the teacher's reflections on the same day and was helpful in the familiarisation phase of thematic analysis (Braun & Clarke, 2022).

This method was selected following a pilot of using it as a method to support reflection on practice, with a teaching assistant carrying out an emotional literacy support intervention (ELSA). I primed the teaching assistant to think aloud following a short ELSA session, with field notes created by myself. It was evident that in taking the field notes and the teaching assistant in reflecting on practice, were both processes dependant on the words that the child used as a cue, this would be problematic when conducting research with a PMLD cohort who are primarily non-linguistic. The introduction of video stimulated reflection was piloted with a colleague who was role-playing a consultation. The skillset of delivering 'apt prompts' was already in place from my previous role as a therapeutic practitioner. Prompts such as 'could you tell me more about that' 'what sense do you make of that' and 'what do you notice' were used in the pilot and were adequate to support reflection of the pilot participant. No data was retained in relation to the pilot. Apt prompts used during the study included 'what do you notice?' 'what do you think that means?' 'what sense do you make of what is happening here' and 'can you tell/explain/describe more about this?'

3.4.6 Semi-structured interview with parents

The fundamental properties of data collection through interview with parents, is the same as described above in section 3.3.2. Semi-structured interview schedules were drawn up using Tomlinson's (1989) hierarchical focusing. The interview questions emerged as a result of concept mapping, which in this instance was born from the literature review and case issues I perceived from reading, having informal conversations and visiting special schools prior to the commencement of research. In using Tomlinson (1989) hierarchical approach to developing the interview schedule, I

allowed the participant to engage with broad and open-ended questions first, which gave the opportunity for information, perspective, and new realities of the participants (which may not have been identified or considered in the concept mapping phase) to be discovered. Participants frequently offered comprehensive information that answered questions embedded further down in the hierarchical schedule, without prompting. I found this to affirm that the top-down concepts which descended from concept mapping, were comprehensive and functional in design and supportive of my intention to explore the salient case issues.

The focus of the interview is to elicit and gather data about all of the research questions, pertinent to the case issues of the bounded case (Stake, 1995) in this instance, the bounded case is the teacher, a parent of a child taught by that teacher and a child taught by the teacher as a co-participant (as described in section 3.2.2). As with the semi-structured interviews carried out with teacher participants, interviews were audio recorded and transcribed. I also produced a written facsimile as soon after the interview as possible, which outlined what I as the researcher understood and took from the interview. This exercise, bound into the data collection methods also merged with the beginning stages of familiarisation in thematic analysis (Braun & Clarke, 2022). I was unable to source an appropriate candidate to pilot this semi-structured questionnaire with, as parent participants were recruited via the teacher and I was not in any contact with any parents of children with PMLD.

3.5 Data analysis

I used thematic Analysis (Braun & Clarke, 2022) to highlight, analyse and identify patterns across transcripts from teacher interview, parent interview and video

stimulated reflections. Analysis was both inductive and deductive. I used Braun and Clarke (2022) to guide data analysis through a series of stepped processes, details of these processes and the actions I took with my data can be seen in appendix four.

Coding was completed using NVIVO, with initial codes drawn top down (deductive) from the initial research questions, concept mapping completed as part of the hierarchical interview design and the written facsimiles completed soon after interview (Stake 1995). Then, codes that were constructed through familiarisation and coding that were not otherwise accounted for or captured something different (inductive), from the bottom up. Codes and Subcodes were examined for patterns and linked to generate themes which represented the content of discussion.

The cases were analysed as single bounded cases, consisting of a teacher and parent as participants, with children and young people as co-participants who were taught as they typically would be by the participating teacher as co-participants, to support the teacher participants' reflective interview. Data relating to knowledge, experience, practice, and collaboration in relation to supporting development of communication in learners with PMLD within an educational context, was supported by three transcripts which were generated from an individual semi-structured interview with the teacher participant, an individual video-stimulated reflective interview with a focus on their own practice with teacher participants and an individual semi-structured interview with the parent participant. Each case was analysed using reflexive thematic analysis from which themes were constructed and then grouped into superordinate themes to structure the findings. Cross case analysis which compared similarities and

differences between cases was also carried out to support transferability of the findings and the discussion.

3.6 Validity and Authenticity

Yin (2016) states that case study can provide a bedrock of knowledge, a foundation on which further research and evaluation can be built upon, especially in instances such as this, where literature pertaining to the subject at hand is scarce and robust foundational knowledge is yet to be created. I have also reflected anecdotally through practice with this group of children and young people with low incidence conditions, that journal articles which present a case study or series of case studies have given me a contextual starting point to begin my understanding. As the reader, I can draw what I need from a case study, where a rich and relatable picture has been presented. I can decide what's relevant.

Creswell and Miller (2000) discuss a framework for validating qualitative research in relation to the lens and paradigm to locate appropriate validity procedures.

Table 1

Validity procedures with qualitative lens and paradigm assumptions

Paradigm assumption/Lens	Postpositivist or Systematic Paradigm	Constructivist Paradigm	Critical Paradigm
Lens of the Researcher	Triangulation	Disconfirming evidence	Researcher reflexivity
Lens of Study Participants	Member checking	Prolonged engagement in the field	Collaboration
Lens of People External to the Study (Reviewers, Readers)	The audit trail	Thick, rich description	Peer debriefing

Note. Creswell and Miller (2000).

They suggest 'disconfirming evidence', 'prolonged engagement in the field' and 'thick rich descriptions' for a constructivist paradigm through the lens of the research, participants and external to the study such as reviewers and readers. These aspects are elaborated upon in the evaluation section 12.3, however guided thinking at the planning stage.

3.7 Ethics

This project was approved by the University of Exeter Ethics committee (appendix five) and has been conducted in-line with the BERA (British Educational Research Association, 2018) guidelines and standards and code of Human Research Ethics (British Psychology Society, 2021). Engaging with the process of applying for ethical clearance allowed for consideration and clarification of key issues pertinent to conducting this research and I ensured that sharing information about right to withdraw, ensuring informed consent, and sharing information about data storage (discussed further in subsequent sections) were clear. Further to this, as a trainee educational psychologist, the HCPC standards of conduct, performance, and ethics (Health Care Professionals Council, 2016) stipulates guidance on conduct of pre-registrants. As a graduate member of the British Psychological Society, moving towards chartered membership, I also have ethical guidelines to refer to for guidance. My previous training in psychological therapies and eligibility for registration with BABCP further guides principled behaviour and conduct.

It is also noteworthy that the ethics of conducting research for people who are understood as having PMLD is an active, current and ongoing focus of discussion in discourse. A recent call for responses was placed in the PMLDLink publication

(Simmons et al., 2022), requested responses from those with an interest in research to offer perspectives on how to conduct ethical research with this group. They outline that individuals with PMLD have not been given due consideration in mainstream research ethics processes and regulations. Simmons et al. (2022) argue that whilst 'informed consent' is upheld as an indicator of research activity being ethically sound, this perpetuates ableist privilege and narrows the body of research findings to include and subsequently benefit those who can offer informed consent verbally, in writing or through other methods which requires higher levels of cognitive and physical functioning. Simmons et al. (2022) advocate for improved practices around gaining assent from participants.

3.7.1 Consent

Consent was gained following provision of the full participant information brief and consent forms (appendix seven). Participants were given the full information and there was no element of deceit in this study. Participants were given at least one week to decide if they would like to take part in the research and were made aware in the full information brief and at the beginning of data collection about their right to withdraw.

Children and young people with PMLD who were being taught as part of the study, who were acting as co-participants, had signed consent given by parents or carers. The participating teacher was asked to consider and hold in mind the child's assent for the duration. If at any stage the child who was being taught as part of the study from the perspective of the teacher who knew them well, appeared uncomfortable, in disagreement or opting out, the observation of the teacher's practice (whereby the child or young person was a co-participant through receiving the teaching) would stop.

3.7.2 Confidentiality

Due to the relatively low incidence nature of PMLD, fewer schools and teachers provide education for this group, making up a small percentage of the teaching profession. Therefore, the anonymity of individuals within any given large geographical region is still limited, as schools within a large geographical region may be connected. More detailed professional stories and contexts of participating teachers, parents or children and young people, if described in depth could render the participants identifiable. The amount of information offered and shared in relation to the context setting of each case and teacher and parent participation in this study is purposefully limited. This is to ensure authentic confidentiality and true anonymity of participants and the children and young people connected to them.

Chapter 4 : Findings

4.1 Individual Case Analysis

I will first present the findings of each single bounded case. I will present each case with a map of themes, grouped together into superordinate themes to support the structure, and give clarity. I have used Braun and Clarke (2022) reflexive thematic analysis, see appendix four for a table detailing further the steps taken as part of this process.

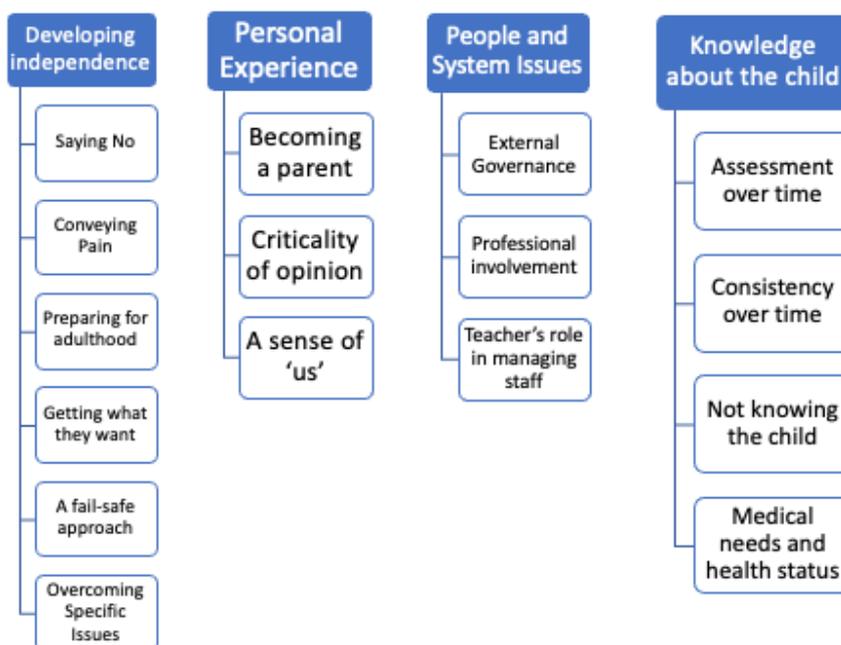
Chapter 5 : Case A

5.1 Context

Teacher A works in a special school in the North East of England. She gained Qualified Teacher Status (QTS) 21 years ago, through completion of a PGCE. At the time of data collection, she had eight years' experience of teaching learners with PMLD. She currently teaches in a large special school that provides specialist education for children with a broad spectrum of need, including communication and interaction, sensory impairment and PMLD. The school is situated in an urban setting, however it is attended by children and young people from across the north of England. Parent A's child has been taught by Teacher A for five years. Parent A works within the same school as Teacher A, in a different role, which may influence the perspective of Parent A.

Figure 2

Thematic map for case study A



5.2. Developing independence

5.2.1 Saying No

“Our aim is really for our students to leave school, better equipped to have their say in the world. So even if it's on a very simple, very basic level, like being able to display likes and dislikes, that's massive. I always think if you can say no, to anything that is incredibly empowering”

- Teacher A

Teacher A and Parent A report that one of the main ‘hoped for’ outcomes for children and young people in their care, is to be able to actively express that they do not like or do not wish for something to happen to them. This ability is described as protective and empowering and affords children and young people control over their lives. Participants describe a learning curve associated with the need to explicitly teach the expression of ‘yes’ and ‘no’ as fundamentals and reflected on past circumstances whereby they were trying to teach arbitrary concepts such as colours and animals.

“Well, actually she needs to know ‘yes’ and ‘no’. ‘Yes’ and ‘no’, and ‘sad’ and ‘happy’ before she needs to know ‘red’ and ‘blue’.”

- Parent A

5.2.2. Conveying Pain

Both the teacher and parent in this case study referred to the ability for children and young people to convey pain and give an indication as to the location of the pain. This can then be extended to choice making, for the child or young person to influence the actions taken to subsequently alleviate pain. This could be, for example, administering

medication, seeking medical assessment, application of heat pads or changing positions. Participants also discussed the role of pain and wider health difficulties in preventing children and young people from engaging with higher level executive functions.

“She has such had such an awful time with poor health, that it’s only now that you can see how much she understands. Whereas before, you couldn’t see that, because she was in agony. She was extremely dystonic, she couldn’t get anything across that she wanted to. Because pain, and anxiety was like the main things that were going on. So now she’s getting a lot more input, because she’s well enough to, if that makes sense”

– Teacher A

“And sometimes if she’s just not feeling great. Or she’s got a chest infection then just communication, it just all shuts down. And she will just return to go back to yes, and no”

– Parent A

5.2.3 Preparing for Adulthood

Both teacher and parent in this case study discussed the process of young people transitioning to and being in adult services. This was a very strong theme in depth and frequency as a discussion point. Participants would like for young people to have embedded and reliable communication skills, that can be interpreted by people who do not know the young person well. This is so that they can be understood in contexts and environments in adult services, where there are bigger staff groups, higher staff turn-over and young people may move between settings more

frequently. Participants used emotive language descriptors such as *'terrifying'* suggesting significant and deep-seated concern about transition out of school and in to adult services. Participants expressed worry about legacy of historical institutional care models, still having a degree of cultural influence now within adult social care services. They view robust and transferable communication abilities as a protective factor which help ensure young people are not forced to engage in activities they do not want to, to preserve dignity and enable choices in situations where individuals are not as well-known, as they are at school.

"I think anyone who works with this group of individuals are always worried about what happens in adult services, and what happens in their later life. And if they're made to go on outings that they don't want to do, or if they're made to watch things that they're not interested in instead of doing an activity that they want, that's terrifying to us. So we want to make sure that our students can say what they want"

– Teacher A

5.2.4 "Getting what they want."

One key indicator of success cited by teachers and parent participants, is that the child or young person is reliably gaining access to what they want, and that they are demonstrating communication for a reliable and testable purpose of getting what they want, in a way that is understood by adults. One descriptive example given by the teacher participant is where one young person was taught to vocalise when something he enjoyed stopped, to indicate that he wanted 'more'. This was achieved through months of turn taking supported with vocalisations between the young person and communication partner. The communication partner introduced pauses to the hand

massages, until gradually increasing vocalisations were used by the young person to signal 'more'. Another example given by the parent participant was the frustration experienced by her child at having to use different routes of access through the house, once she was able to use a high tech AAC device, she was able to express that she wanted to use the same access routes within the house, as everyone else. Parent A was able to then honour this wish. These were considered and conceptualised as a communicative successes.

5.2.5. A fail-safe approach.

Securing a system of communication that remains functional in allowing the child some means of expression and being understood, regardless of their health status or other interacting factors which cause fluctuation in ability or capacity, is seen as evidence of effectiveness. Teacher A explained that if a child becomes unwell or experiences deterioration in their presentation, they may be unable to access higher executive functions, which would typically afford them the opportunity to communicate using more advanced methods; securing opportunities to be independent even when operating at reduced capacity. Therefore, teaching and securing multiple systems of increasing complexity ensures that there are other avenues of communication to 'fall back on' when the most demanding is inaccessible. For example, when a young person is relatively well, use of eye gaze may be a successful approach, however, when tired or unwell, this may not be effective. Instead, a prolonged stare at a 'yes' or 'no' card secures a level of functional expression. If a prolonged stare at a 'yes' or 'no' card is inaccessible, staff knowing the individual's repertoire of movements, such as an eyebrow raise, ensures that the child and young person can be understood at times where capacity is reduced. Teacher A is clear that individualised 'yes' and 'no' cards

and intuitive communication partners who collate information about the pupils over time, have been consistently effective for most children and young people.

5.2.6 Overcoming specific problems

Teacher A is clear that she would not typically carry out a communication 'intervention' and that developing communication skills is at the centre of the work that is done with children and young people every day, being one of the primary focuses of educational outcomes. Teacher A noted the exception of this is where a child or young person presents with a specific need which warrants a period of intensive focus, to try and bring about an explicit and planned change for a reason, outside of the generic development of communication skills. Teacher A and Parent A gave an example whereby the young person, following a period in hospital and a decline in their health began repeatedly pulling out their breathing tube. Through considering the function of this action in the context of what the adults knew about this young person, they hypothesised that the young person was seeking to bring adults over to interact with them. The young person had learned that removing the breathing tube would be consistently effective in securing interaction and care, without understanding the danger to themselves. The teacher introduced a switch that when pressed announced, "Please come and talk to me" or words to that effect, and spent concentrated time with high repetition, teaching the young person the cause and effect of pressing the switch and being met with support and interaction, immediately. This meant that the young person could elicit support and gain the desired outcome of being interacted with, without inadvertently presenting physical risk to themselves. This was conceptualised as a focused intervention by the teacher and parent.

5.3 - Personal Experience

5.3.1 Becoming a parent.

Teacher A moved from mainstream teaching to teaching learners with PMLD following the experience of becoming a parent to, and raising a child with complex needs. When asked about the fundamental things that her child taught her about developing communication for this group she stated;

“I think looking for the little things, looking for the really, really tiny things, whether it's really, really tiny bits of progress and development, or it's really, really tiny bits of whole-body communication.”

- Teacher A

The teacher cites that she was able to learn from giving care and careful attunement as a communication partner to her own child with complex needs. She came to understand the range of vocalisations that her child made and learned through extensive around the clock caregiving, and that each vocalisation's pitch, tone, length, volume, and pattern all had different meaning and communicative intent. This knowledge has since been transferred to the teacher's professional arena and has allowed the teacher to challenge attitudes towards communication, to show what communication for this cohort can look like and the degree of close attention subtle communicative attempts need. She has been able to bring staff attention to the meaning attached to a range of vocalisations and models this herself, for example, she is able to distinguish between the vocalisations of children and young people in her class by ear.

5.3.1.1 Criticality of opinion

Another noteworthy experience described by both teacher and parent participants in relation to becoming a parent to children with complex needs, was that of their children surpassing expectations of medical professionals and doing things that were not anticipated by doctors. This has led the participants having an open mind and degree of criticality with regards to what is said to be possible for children and young people in their care. This has been manifested in the form of high expectations for progression and a presumed competency for all children and young people. Parent A, who's child, when at a different school was told that they would not be able to communicate found that since being exposed to higher expectations, her child has surpassed what was expected. Parent A's child is now conveying complex ideas, wants, needs, feelings and is recalling experiences using eye gaze technology.

5.3.1.2 A Sense of 'Us'

The personal experience that Teacher A has in advocating for children and young people with PMLD also has systemic implications. In having a high expectation for the performance of staff, fostering a clear sense of hope and possibility, and a unique perspective in supporting parents of children in their class and the unique ability to be alongside parents. Teacher A discusses issues relating to PMLD holistically and discussed aspects of the socio-political climate around disability rights and features of systemic ableism. Parent A referenced that Teacher A, having her own child with complex needs, meant that Teacher A understands and is able to be alongside parents. There is a sense of 'us', a cohesion and short-handed dialogue between them that is not as evident between individuals who don't have this degree of lived experience.

5.4 People and System Issues

5.4.1 External Governance

Both participants identify an inherent misunderstanding of children and young people with PMLD and subsequently, the work that teachers are doing with this cohort when it comes to policy and governance. Teacher A discusses conflicting messages received, with the Department for Education requesting one thing, and Ofsted requesting something to the contrary. Ofsted inspectors having had no experience working in special schools is also cited as problematic. It is felt that inspectors do not understand the aspirational direction being taken for this group, or the teacher's skills and practices that are felt to be so distinctly different to the professional knowledge and experiences of the inspectors themselves, their interpretation of statutory responsibility, and description of what education should be. Teacher A reflected that the school are in a position of having to engage in arbitrary measures and processes that are not always relevant or fit for purpose 'on the ground', in order to satisfy inspectors and frameworks that don't suit the need of the children and young people, which can take time, resource and can be diminishing for staff morale.

5.4.2. Professional Involvement

Occupational therapists are cited as having a role in helping link the child's abilities with equipment to support communication, that is best suited to physical strengths. They then support implementation of the specialist equipment to support the identified approach, especially in instances where the equipment is novel or less well known to the teacher. However, professional involvement can also be met with resistance in instances that professionals who do not know the children and young people attempt to instigate changes that are not considered to be in the best interest

of the child by established staff, who do know the child well. Teacher and parent participants reflected that sometimes professionals can be over-confident and over-zealous in instances where their training and experience is not enough.

“I've always been really, like, sceptical of what they've [professionals] said and I'm always questioning it.”

- Parent A

“Well, I think it's obviously people have degrees and training and experience and things. And I think sometimes you can be just a little bit overconfident and just make presumptions that you know what is the best for, for a student? And that's most likely lead to massive kickback from established staff who are like, ‘they just walked in and told us what do, we need to do this instead? Why?’ Without like, an explanation.”

– Teacher A

The way in which the assessment and advice of external professionals is delivered can determine the impact of involvement and acceptance of suggestions. This is indicative of the value placed on getting to know a child over time and the expertise held through experience, and how this is paramount in governing the direction of communication approach.

5.4.3. Resource

Both teacher and parent participants referenced time constraints, lack of training and difficulties accessing resource as barriers to continuous implementation of communication teaching and approaches. Participants reflected that the very busy

nature of providing care routines to children and young people, meant that sometimes communication teaching and support was overtaken by this. Difficulties accessing specialist equipment and funding issues are also cited, with long waits on high-tech equipment and the associated expenses of specialist kit.

“access to eye gaze, it's a big school, and a lot of children in here could benefit from it massively. But they've just not the funding. There's just not the funding, for every child to have one.”

Parent A

5.5 Knowledge about the child

5.5.1. Assessment over time

Continuous use of detailed records that are created over time, by staff who are working with the children and young people provide an overview of activity and progress. The teacher uses these to inform her awareness of how pupils are doing in their time with teaching assistants, and forms part of the information that determines the direction of next steps. Teacher A also holds intimate and detailed qualitative information about each child's journey which she draws upon to support assessment, sense making and guiding hypotheses (which is demonstrated in the video-stimulated reflection). The teacher makes regular reference to things that children and young people were not able to do and how this was overcome. Knowledge about the individual child across various domains of need, time and space and how these factors interact is central to assessment over time and understanding why approaches have not worked historically and what might work moving forward. The teacher also references that adults also need time to conceptualise and understand nuance.

“he does such a range of vocalisations and it takes people a long time to know [...], how it reflects how he's feeling and things like that”

- Teacher A

5.5.2 Consistency over time

Consistency over time is named as an important indication of effectiveness.

Comments by teacher and parent participants suggest that consistently demonstrating the skill over time shows that learning about communication has been retained and that the children and young people have an awareness of the functionality of the approach. Being consistent in the choices that children and young people make over time, using the method of communication being developed is indicative that the children and young people are using the approach to repeatedly demonstrate likes and preferences across contexts, rather than random choice making.

5.5.3 Not knowing the child

In contrast to assessment over time and consistency over time, a significant challenge that was described is when staff do not know children well enough to effectively support their need or understand their communication. The Teacher A cited significant difficulties with high staff turnover, which she largely attributed to covid burn out and relatively low pay for the level of responsibility that teaching assistants hold (which can include meeting critical care needs such as airway and seizure management). This has a considerable impact in several areas, including the children and young people's sense of safety, trust in the ability of staff who do not

know them to manage their care needs, and increasing the demand upon staff who do know the child well to compensate for lack of experiential knowledge in the space. Visual communication poster/passports are displayed on the wall in the classroom with information about how each child and young person in the class communicates to try and ensure that unfamiliar adults have a reference point with corresponding photo of the child. This is a systemic measure, to ensure that difference in communication are understood by the wider network of adults and visitors to the class. Parent A highlighted that the need for a higher degree of medical training and competency in managing health and personal care needs, works to protect staff being moved from PMLD classrooms to support staffing in other areas of the school. *“there is a quite high turnover and different areas of the school and if PMLD, PMLD they are quite good because they can if you're not medically trained for the child, you can't work with that child. So the chances are a stranger coming in work them is very slim.”*

- Parent A

5.5.4 Medical needs and health status of the child

Both Teacher A and Parent A highlight that the health needs, which are common for children and young people within this cohort, are a significant barrier to the implementation of communication approaches and teaching. Children and young people can experience rapid decline in their health which leaves them feeling unwell and anxious. Protracted periods of absence relating to health needs can also lead to children and young people losing previously retained skills. The nature of some conditions mean that the child's capacity and ability can change over the course of a day or even just a morning. Epilepsy and seizure activity is named as one such

condition which can cause significant differences in the child's availability to engage in communication teaching, due to either having a cluster of seizures or being fatigued or sleeping following a seizure. Furthermore, seizures can be difficult to recognise and track, which means teachers are not always aware when pupils are recovering after a seizure. This means that engagement can be difficult to predict, and lack of engagement can be difficult to map and attribute causality.

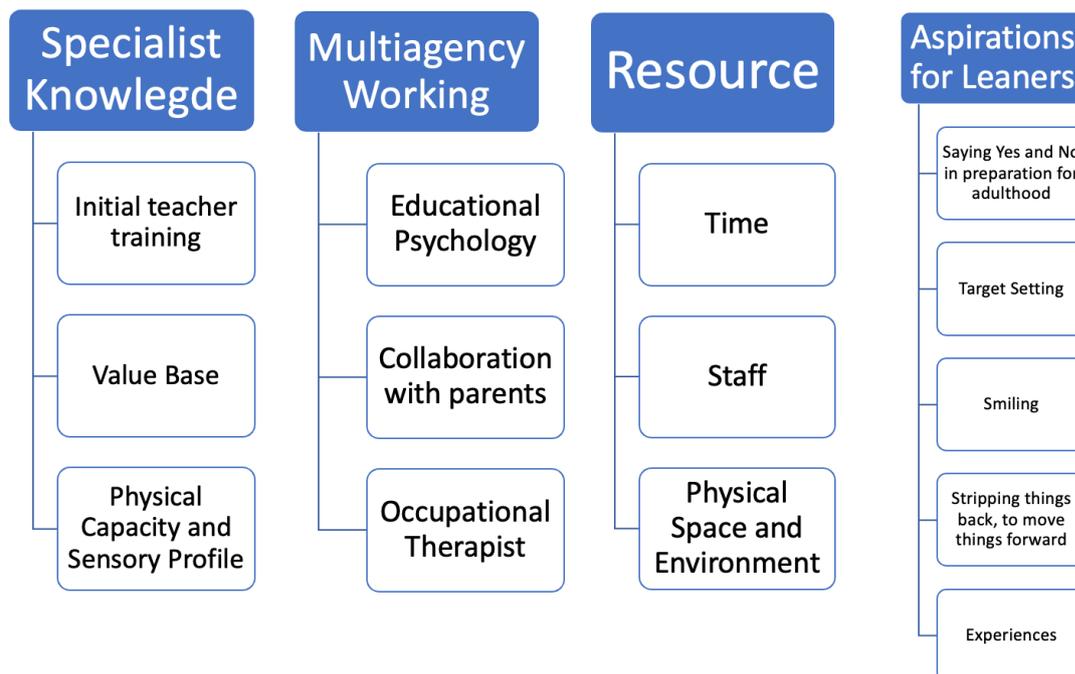
Chapter 6: Case B

6.1 Context

Teacher B works in a special school in the South West of England, he has been working with a cohort of children and young people with PMLD for 7 years, after completing a PGCE. Teacher B has only ever worked in special schools and was placed in a special school during his initial teacher training, which he found very beneficial. Teacher B currently works in a special school with less than 100 pupils on roll that caters predominantly for learners with complex needs. At the time of the study, he had a class of 7 secondary aged pupils with PMLD.

Figure 3

Thematic map for case study B



6.2 Specialist knowledge

6.2.1 Initial teacher training

Teacher B referred to himself as being 'lucky' to have had the initial teacher training experience that he did. He benefitted from his teaching placement being in an

innovative special school, where he was able to gain a wide range of experience which was preparative for working with learners with PMLD. Much of Teacher B's initial teacher training was completed with children with moderate learning disabilities, as he needed to demonstrate proficiency in mainstream pedagogy. His Newly Qualified Teacher year was spent teaching a cohort of autistic children with profound needs, which is also cited as a key source of his professional knowledge that is regularly drawn upon now. Teacher B demonstrates an awareness of the lack of research that is available in supporting the teaching practices of children and young people with PMLD. He has worked to draw parallels between well researched needs, such as autism and drawn out technical understanding that is relevant for his current PMLD cohort, this includes practice related to sensory processing and regulation.

6.2.2. Value base

Teacher B spoke often throughout interview and reflection about the enjoyment that he gains from teaching this cohort and that he views his work as distinctively meaningful. He discusses how he has carved out a professional niche which appears to have emerged from a value base. He uses language which is indicative of being proud of his work. He reflects on feelings of privilege and that he views being part of a holistic way of teaching, underpinned by meaningful and sustained relationships with parents and families as unique. He finds teaching children who might be considered as complex and hard to reach or understand as incredibly worthwhile. He describes how 'big lightbulb moments from seemingly small things' are incredibly rewarding, more so than one would experience in teaching typically developing children.

“Every single professional in their life is telling their family that they can't do this, doctors, physios, everyone says your child won't do this. And the teachers are the only professionals are saying, we're gonna do this, your child's gonna learn this. And like, I just love that. I've taught some of them for five years now. Only seven or eight in my class, you get to know the family so well, you have the meetings, you become really close and I just love that kind of holistic approach. We visit them at home or in hospital when they're poorly, we're messaging every day on [DIGITAL PLATFORM].... you just become a really important person in their family.... I'd really like to help. And, when you get those lightbulb moments, we get like one or two a year as opposed to one a week. There's so much more meaning. And to me, I bet it's a better feeling than you know, a Physics student getting an A. I love that. “*

- Teacher B

He has a clear set of values which underpin his practice and that he draws upon to give him a sense of direction, and to help him decide which approaches are appropriate and which are not. For example, he demonstrates a clear preference for relational and playful ways of working, over an Applied Behavioural Analysis approach. Theory and practice that does not fit with values, which for Teacher B, appear to prioritise social justice, compassion and seeing the whole person, are disregarded. Teacher B spoke in depth about the natural consequence of experiencing low autonomy, when one is profoundly impaired. He reflected how little active choice children and young people have over what is done to them from a care, medical and social perspective, all of the time. Teacher B views this as fundamentally unfair and he posits that he has a responsibility to increase autonomy

as best as he can through such measures as the design of the environment, person centred targets, advocacy and fostering a culture amongst staff of empowering young people. Whilst this value base does not directly offer the teacher a source of technical professional knowledge, it appears to shape the direction of work, what he pays attention to within the available pedagogic discourse and the decisions that he makes in relation to supporting children and families.

6.2.3 Physical capacity and sensory profile

A key consideration made by Teacher B is the physical need and sensory profile of children and young people, in relation to maximising cognitive capacity for higher level executive functions, such as developing receptive and expressive communication skills. He does this through ensuring that physical needs are taken care of, and that sensory regulation is achieved first and foremost, much in line with a focused hierarchy of needs model (Maslow, 1958) and that ways of working are appropriate to the physical capability of the child.

“get them out of their chair, you can do the physio to get them in a relaxed state and then it's completely silent and you can do intensive interaction, lying on the floor because wheelchairs are horrible, there's no kid who's comfy in a wheelchair. And if you're not comfy, you're not going to be able to communicate”.

- Teacher B

Teacher B developed extensive professional knowledge through training and experience in relation to supporting sensory regulation for autistic children. Teacher B has migrated that skill set to teaching a class of learners with PMLD. Teacher B

explained how often children with PMLD have a sensory impairment, such as a cortical visual impairment. He postulates that missing a significant degree of one or more whole senses, can lead to a deficit in sensory input. This means the child's focus and motivation lies with trying to increase of sensory seeking behaviour to compensate for the deficit. Through finding the optimal level of arousal (Zuckerman, 2014) Teacher B aims to create an internal balance, increasing readiness for learning. He gave an example of a young person, who following months of providing a sensory diet for vestibular need, generated spontaneous speech for the first time in mid-adolescence. The young person now has a vocabulary of around 20 words that they use for expression and requesting.

Teacher B also discussed the impact of conditions such as cerebral palsy, which lead to muscle tightening, and how aspects like this warrant's careful consideration of which communication approaches are appropriate. For example, without the ability to intentionally move a finger, hand or arm, switches may not be an appropriate direction to pursue. Physiotherapy may also need to be offered before engaging in communication teaching which requires application of physical movement to increase movement and comfort.

6.3 Multiagency Factors

6.3.1 Educational psychology

Teacher B views the role of educational psychologist as offering emotional support to parents. He also cited that the educational psychologist was available to offer emotional support to the staff team through group supervision. He named the educational psychologist as offering support through consultation to parents as the

most valuable work that they do, from his perspective. Teacher B generally locates the educational psychologist as having more of a role with children with severe or moderate learning disabilities, where behaviour that challenges adults is more commonly a feature of their communicative profile. Teacher B feels that he personally would not benefit from advice regarding the development of communication for a PMLD cohort of learners from an educational psychologist, he would be more likely to go to other teachers within school for teaching ideas. In relation to the EHCP, if an EHCP is not deemed reflective of the child when it is first issued, Teacher B will provide baseline assessment of their own and shape outcomes and provision that they view as being better representative of the need. However, by the time Teacher B typically inherits a young person into his class, the child has usually been at school for several years. Through the annual review process, the plan has been shaped by the previous teacher, multidisciplinary professional's and family to a point which all agree that the plan is appropriate. Teacher B reports picking up new EHCP's historically which are in no way appropriate and views the EHCP more as a process rather than a document to take at face value with a directive purpose. Teacher B gave examples of an outcome which was around 'counting to 20' for a child with profound learning needs as being inappropriate and unhelpful for various ethical and pragmatic reasons, perpetuating ideas that external professionals have an inherent misunderstanding of the needs of this group. In contrast, EHCP outcomes that focus on sensory curriculum and communication, were seen as more realistic and helpful.

6.3.2 Collaboration with parents

Both Teacher B and Parent B discussed the relevance of co-producing targets for children and young people in conjunction with each other, which relate to the development of communication and the approach taken. There are various methods of home-school communication implemented including an online forum, informal conversations in passing and on the phone, and more formal meetings. The collaborative approach is described as well integrated and valued by both teacher and parent participants. The teacher reflected on how much learning goes on at home, and how when parents have a stake in the direction of communication approaches, they have demonstrated an interest and can follow through with this at home. Parent A has made successful suggestions using knowledge they hold about their own child, such as carrying out intensive interaction in the hydro pool due to the young person's love of water, to increase engagement.

A key theme when discussing the way in which communication approaches are decided upon is the balance of expectation setting. Both teacher and parent participants discussed how being aware of what to expect from a developmental perspective, can help to decide what is a priority and what they can hope for the young person to achieve. Teacher B is clear that they have a role in being a professional who offers hope and determination in developing a child's communication, but balancing this against not giving false hope. This was reflected by Parent B who was clear that the goals, direction and aspirational targets are purposeful, planned and active, they needed to be within the developmental brackets of her child's capability, otherwise, they would be arbitrary and would not yield a meaningful outcome for her child. Having a basis of clear and reasonable expectation to build upon, means that the direction of work and the way in which communication is conceptualised and understood underpins methods chosen. For

example, for a child with the most profound needs, the value of receptive communication, experiencing the sensory elements associated with communication and investing in the skill and knowledge of consistent communication partners, is a way of working and developing communication that would be appropriate. Expectations that lie outside of this are likely to be unhelpful and detract time and resource.

6.3.3 Occupational therapist

Teacher B regularly references work of an occupational therapist who has a focus on neurological and sensory aspects which underpin learning. Consultation with this occupational therapist is seen as valuable and supports development of communication through ensuring that all other needs are met. Teacher B appears to value theoretical and scientific perspective and demonstrates a clear shared interest in neurological aspects of the child and young people's presentation with this occupational therapist in particular. Teacher B gave examples of knowledge acquired from working with occupational therapist, which he has gone on to synthesise with knowledge from working with autism, to generate principles of practice when working with his pupils with PMLD. One example of such is regarding the neuronal pathways connected with 'stimming' behaviours and how this led to repetitive striking of a switch for one young person. Teacher B hypothesised that this went in a cycle of automated striking of the switch and enjoyment from the feedback of the action rather than the communicative purpose. He postulated this in turn strengthened the neuronal pathway and perpetuated an almost automated response of repetitive striking when presented with the switch. He felt this was detracting meaning from the cause and effect of engaging with the switch for a purpose.

Through removing the switch after a couple of strikes, the young person was able to reduce the repetitive striking, reducing over time the automated response of repetitive striking and eventually reengage with the intended communicative purpose of hitting the switch just once to form a greeting or make a request.

6.4 Resource

6.4.1 Time

The participating teacher described that to have one-to-one session to focus on a communication approach with a child, it takes a significant degree of time and resource to first meet the child's personal care needs before they will be ready to engage to their full potential. This can include hoisting to change, running a PEG feed and completing physiotherapy to ensure that intentional movement is possible. Co-ordinating this for a class of 7 or 8 young people, and co-ordinating resource outside of the classroom, such as a private room or soft play needs more time. Teacher B explains that for some children and young people, up to 80% of their time in school is dedicated to meeting medical and care needs, leaving 20% of the time available for learning input. Parent B also references the challenge of time and coordinating needs

“Sometimes we get won't be anytime, because again, it will be around whether or not the timing of the day is right, YP'S NAME is at that point where we can do it. Is he about to have medication. Is he about to have a feed. Has he just had a massive seizure..... Is it really inappropriate time to take him in, is it not, or is he about to have one of those things, because it all takes a long time to set it up”

- Parent B

6.4.2 Staff

Managing the dynamic of staff in the classroom is cited as one of the main aspects of Teacher B's job. He attributed much of his occupational stress and preoccupation to issues and activity related to this responsibility, for which he felt he wasn't well prepared for from training alone. The teacher is clear that support staff are hard-working, comparatively very poorly paid especially when considering the tasks associated with their role and the specialist skill set which they are required to develop. The intensity of the work and degree of operational co-ordination that is required to make the classroom and teamwork as a system is complex. Interpersonal friction is cited as a natural consequence of this, and it falls to the teacher as the leader in the space, to manage the way in which adults relate to one another and move forward as a team on a day to day basis.

6.4.3. Physical space

Both Teacher B and Parent B highlighted the impact of equipment as a physical barrier. This includes wheelchairs, standing frames and hoists. The use of equipment creates a natural distance between the teacher and the learner when the teacher is trying to deliver communication teaching, this is also cited as barrier between all of the children and young people in the class, and impacts on the proximity that children and young people can achieve with peers when interacting for a social purpose. Teacher B and Parent B also explained how children are often uncomfortable in a chair and that the pressure on the young person's body, which they often cannot self-remediate or reposition independently, can create frustration, distraction and reduce capacity for other things. In situations where these elements are reduced, the child's capacity is increased.

“When he gets into water and he chats in water and he, you know, moves himself around and he just literally comes alive. And I think a lot of that is the fact that he has no contact. He's just floats because we can put like a neck cushion on him and he just floats in the water. So there's nothing, nothing is touching him apart from the water.... I think it's, it's the one time where there was nothing else that is causing him focus. Yeah, he can literally focus on the enjoyment of being in the water. And you see that through the way in which he communicates.”

- Parent B

Subsequently, the teacher feels that optimal teaching occurs when children and young people can be out of a wheelchair, in soft play, on the trampolines or in the hydro pool. In order to move children from being seated in a wheelchair to being on the floor in soft play requires co-ordination with staff, hoisting equipment, room bookings and safe moving and handling, Teacher B reflected that more time and soft play space would allow for more optimal communication teaching.

6.5 Aspiration for learners

6.5.1. Saying yes and no in preparation for adulthood

Teacher B highlights that the context of adulthood for a person with PMLD often means involvement from social care, moving in to residential care or attendance at day services. Teacher B relayed deep concern about how differently adult services operate to school, and that transition to an adult service means that there is a lower ratio of staff for service users and that service users' needs are less individually and holistically tailored to. Part of Teacher B's focus regarding the development of communication is to ensure that children and young people are prepared as possible

with the ability to express a clear means of indicating yes and no, which he viewed as instrumentally protective. He also iterated that the ability to indicate yes and no is key in reducing behaviour that challenges staff, such as high expressed distress and physical expression of frustration, such as hitting. He is also clear that the ability to express yes and no, makes working with that young person more comfortable and reassuring for staff, increasing staff motivation to engage with the young person, which in turn improves the experience of the young person from a practical, social and emotions perspective. Parent B also referenced the role of being aware of the individual way in which their child would indicate 'yes' in to have a care need met.

"I look very closely at him and say, 'Do you want to come out for a stretch?' And he will sometimes respond to that with an arching off his back. To kind of like indicate yes, I do. And it's the only way he can kind of communicate that."

- Parent B

6.5.2. Target setting

A consistent theme for Teacher B was the targets that he implements and is working towards with his pupils. He is clear that the targets descend from individual and in-depth knowledge about the child, which is represented in the individual education plan, alongside EHCP outcomes. Teacher B is clear that he does not conceptualise his teaching of communication skills as an intervention, as teaching communication is at the core of the work that is typically delivered in this context and is central to the purpose of teaching this group, he does describe working to short term targets. He is tailoring his approach in line with the aspired outcome and are individually approached, depending on the need of the young person. Some of the focused work

that occurs with the purpose to meet targets is conducted individually with children, but communication teaching is also delivered in a group context. Teacher B and Parent B discussed the importance of working together and Teacher B values the role of parent's views in target setting.

"I use parents like that, we send the targets home and then my parents have always been really good at saying 'Oh, have you thought about this?'"

- Teacher B

"He will always say to me; 'I'm about to write YP NAME's new targets or whatever, what was your view of his previous ones, anything particular that you think you would like him to work on and you'd like us to work on with him. I've been thinking about X, Y, and Z'. And then I'll kind of come back and say, well, actually, could we try this and can you do that? How about combining?"

- Parent B

6.5.3 Smiling

Teacher B is clear that children's enjoyment, laughter, smiles, or ascertaining the individual ways in which adults understand children to be 'smiling' is an indicator of effective communicative expression of positive experience. Parent B also notes happiness to be something they would like for their child to gain from time at school.

"So I think that's the thing for me, for him to be happy day to day."

- Parent B

Teacher B regularly referred to smiling in interview and reflection. He is able to explain the ways in which he knows he can make children and young people smile, which is indicative of individualised practice. Teacher B describes that this is

regularly and repeatedly implemented, to bring a smile and subsequent engagement. For example, Teacher B enters a routine of emulating 'hiccups' which one young person always finds funny and responds to with laughter. The teacher is then able to take this vocalisation from the young person and engage in back and forth vocalisations in intensive interaction, demonstrating that clear smiling and laughing, often precipitates and indicates readiness for a communication focus.

Teacher B also explained that making children and young people smile and laugh is also evidence of engagement for social communication purposes and smiles indicate an awareness of, and enjoyment in, being with other people. This is also cited as an inherent purpose of developing communicative skills for this group of learners. He also discussed the bi-directional relationship of a clear laugh, and reflected that smiles naturally spark interest and encourage more communication from supporting adults, creating more opportunities for communicative engagement.

6.5.4 Stripping things back to move things forward

Teacher B discussed how often a student's ability to do things is constructed in the narrative of those working with them and that it is easy to inadvertently project abilities on to a child and young person that they don't yet have. Teacher B gave the example of using an eye gaze system. If one is to look at the screen without purpose for long enough, eventually something will be selected. If the selection made is coincidentally in line with the target or hoped for response, staff can mistake coincidence for competency, especially where it hasn't been consistently or meaningfully demonstrated. Therefore, accurate ongoing assessment is part of communication teaching being effective and arriving at an accurate baseline

assessment is demonstration of effectiveness. Teacher B discussed how it can be difficult to discuss with parents the concept that their child isn't doing things that they have previously been told that they could do. However, in stripping back ways of working which yield inconsistent engagement, skill can emerge by spending time on more appropriately pitched skills.

"But if you spend two hours a week doing eye gaze, that's two hours a week you're not working towards something they can do. And so often, these kids, people project ability on them. But you know, if I could teach this kid to sing back and forth with me or press the switch, in the [same amount of] time, he's not even looking at the eye gaze"

- Teacher B

"It is very much sensory and experiential, rather than looking at how do we get him to go from A to B, because he doesn't actually have the capacity to move from A to B in lots of different ways.[.....]. So trying to find those tiny little things that, maybe, you can move from A to B, or maybe even to C."

- Parent B

6.5.5 Experience

Both Parent B and Teacher B discussed the important and inherent value of experience for children and young people with profound disabilities. Planning and enabling learners to have a broad range of experiences, and for those experiences being received by the child, to be valued as the whole outcome. The value of 'experience for experience's sake', without the need for concrete or tangible

'progress' to underpin the reason for providing the sensory, social, or communicative experience or opportunity can form the basis for meaningful and effective work.

"I think the biggest thing for me is about him being able to experience the world through as many different experiences as he can. [.....] different sensory experiences, having social interaction with other people that are like him, even though he's not even massively aware of that."

- Parent B

Reflective commentary: being presented with detailed rationale and explanation of experience in and of itself, and can for the first time appreciate the value. I have begun to connect my understanding of the 'experience component' of the engagement model to the practicalities of providing experiences in the special school context and in the context of high care needs and associated practicalities such as time and resource.

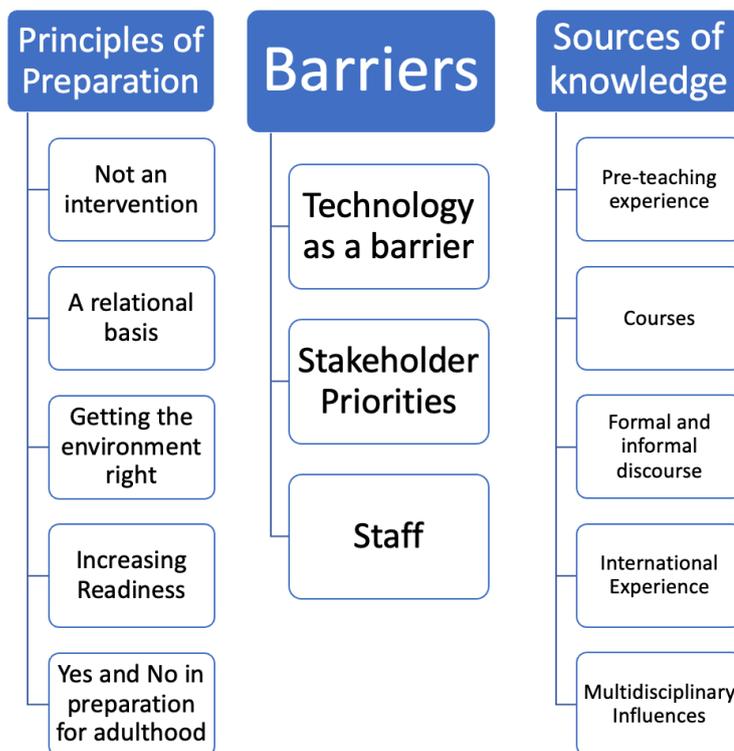
Chapter 7: Case C

7.1 Context

Teacher C works in a large special school in the South West of England which has over 200 children on role and caters for a wide array of special educational needs, in the South West of England. she achieved her Qualified Teacher Status through a Bachelor of Education and has completed an additional qualification in Visual Impairment, at the time of data collection she had over 15 years experience teaching learners with PMLD. She was inspired to work with this group from engaging in a period of work experience during adolescence. She has worked in the same special school for the entirety of her career, apart from some initial years spent working with children within different categories of special educational need. Parent C's child has always attended this school and has known Teacher C for around 9 years.

Figure 4

Thematic map for case study C.



7.2 Principles of preparation

7.2.1 Not an intervention

Whilst this school offers communication intervention workers to pupils, Teacher C explains this isn't a suitable approach to supporting the development of communication for learners with PMLD. Teacher C cites developing communication as the very core of her work, which doesn't necessitate use of intervention, because communication teaching is happening all day, every day. She reflected that the principle of introducing a relatively unknown adult, who is not a consistent person in the classroom (a communication intervention worker) with the view of a session aimed at developing communication is arbitrary, as technical skill cannot develop without a strong underpinning relationship between the adult and the pupil grown through intensive and longitudinal time spent together. Teacher C reflected that she has protected times during the week for routines, which help children to orientate to school and 'tune in' to the communicative environment and being in their classroom. This can be with high engagement activities that tune into children's interests or intensive interaction that brings the young person's attention to the learning space and the teacher.

7.2.2 A relational basis

The theme of a relational approach to developing communication was consistent across sources in this case study. Teacher C discusses that staff who work with children and young people with a commitment to employing a relational approach thrive in the role and are often happy and successful in their work. This is indicative of a relational approach having a successful bidirectional influence and adds value to the school day for both young people and adults. Intensive interaction is cited as an

effective means of communicating with a social and relational purpose and is encouraged in this setting. Teacher C discusses the role of relationship building and how having a degree of mutual understanding and positive basis for communication is vital to trust and the quality of intersubjectivity between staff and children and young people.

Teacher C reflected that relationship building needs to happen over time for this group, citing that it takes at least six months to build the foundations of a relationships and to begin to have a deeper understanding of the pupil's communicative profile, and to move forward with them. Parent C also commented on the importance of having a relationship with the child and knowing how to motivate him, prior to the commencement of focused work.

"I suppose you'd need to set an understanding of him in the first place. He likes routine and is motivated by things that he wants, you would need to know if he wanted to do something. These children are not easy to understand it, it takes a while to build up relationships. And, you know, takes time for that to form. Really, if it was just a normal school year, it's not a very long period of time. And it's good for him to be with someone that's familiar to him."

- Parent C

7.2.3 - Getting the environment right

The importance of managing environmental factors which is conducive to the child and young person engaging in communication approaches is highlighted by Teacher C. An example given is that of children and young people who have previously been

taught within classrooms with ambulatory autistic young people. This classroom is described as a louder and more unpredictable environment, related to the need and presentation of the children in the group. The teacher reflected that for children and young people with a cortical visual impairment (CVI), a high degree of noise and movement can cause anxiety and distraction which reduces their capacity when trying to engage in communication teaching. Since moving into the PMLD protected space, which is in its nature, quieter and more predictable, children and young people with profound needs and a CVI have made seemingly spontaneous progress in initiating interactions with adults, a stark contrast to their previous communicative profile.

The number of children within the environment can also impact on the quality of teaching that can logistically be delivered, as each child usually requires a high level of personal, medical, physical care, staffing and physical resources to be co-ordinated. The more children and young people in class, the more complex co-ordination is needed. Teacher C was enthusiastic about pending arrangements for a smaller class size which will mean less pupils, less adults, less equipment, and more physical space for everybody to occupy. Through having less children over the COVID-19 period, Teacher C was able to reflect on greater capacity for teaching, including communication teaching, when the space was less populated. A natural consequence of this was that there was more time to engage in the activity that was set up, before needing to engage in a co-ordinated period or a new cycle of meeting care needs.

Parent C also noted that barriers in enabling children to be able to access a broader range of environments and activities outside of the classroom mean that alternative spaces are not always as readily available and easy to arrange and access.

“you can never have enough, really. And I mean, this is an expensive world we live in like disabled world isn't cheap. Things are so expensive. And equipment is expensive and does irritate me, sometimes you have to justify your need for this that and the other.[.....] Outdoors. Yeah, he so loves being outside, he really really loves being outside.”

- Parent C

7.2.4 Increasing readiness for communication

One cited example of clear success was achieved using an intensive interaction approach with a child with profound learning and physical and sensory needs who also experienced significant relational trauma, including a transition into local authority care. This led to the child withdrawing and spending most of their time fixated on their hands, the degree of withdrawal was concerning for the child's key adults. Teacher B generated a working hypothesis that the young person was experiencing a dip in the mental health of this young person and withdrawing to cope with difficult feelings that they could not express. She used a concentrated and purposeful period of Intensive interaction, with a view to increasing the young person's experience of reliable connection and interaction, coupled with reliable caregiving of a consistent adults within school. Over time this opened the young person up and enabled them to orientate their attention to a communicative purpose.

Again, Teacher B demonstrates how using a relational basis for the development of communication met a deeper emotional need and gave way to readiness for further development of communication.

Reflective Commentary: Despite having a keen interest in children's mental health from my previous professional experiences, I had not before considered that mental health and emotional wellbeing of children with profound learning disability could be a barrier to learning. This is perhaps due to being trained in a third-wave cognitive behavioural modality, which assumes that the cause and experience of distress are related to thoughts and behaviours, generated through sharing of complex cognitive processes that are usually dependant on use of formal language. CBT is the NICE guidelines first line treatment; I now realise that this policy may be excluding many people from accessing appropriate mental health support. The concept of poor mental health as a barrier to learning for this group has prompted me to think more about the relevance of theories that I have previously rejected, such as psychodynamic theory, and how this could be relevant.

7.2.5 An effective Yes and No in preparation for adulthood

“for me, the point of what I'm doing is that they are able to show some choice and some control in their adult service, or in their adult life. So if I can, if I can transfer them on to beyond me with an effective yes, no, that's, that's my dream. At least an effective No. So that they can say they don't like things”

- Teacher C

Teacher C was able to describe in detail the pragmatic issues that relate to transition to adulthood for this cohort of learners. Families are faced with difficult decisions about the type of support and provision from an educational, health and social care perspective and are often powerless in how soon they can make arrangements for children and young people, as they are dependent on other services to agree to funding and find placements which can often be left to the very last minute. Teacher

C reflected that it is common for all key adults to want to prepare children and young people as best possible so that they can to self-advocate and navigate adult life.

7.3. Barriers

7.3.1 Technology as a barrier

The participant discussed with clarity her view that technology, particularly use of screens, can create a barrier to authentic engagement. In Teacher C's experience, screen use in relation to learning can sometimes create the illusion of engagement and progress, when in fact, children and young people are primarily engaged with lights, colours and sounds of the device. She reflected that learners are often not focused on the content the screen is displaying, or engaging with the touch screen in a way that is purposeful, but enjoying very high levels of sensory feedback which they can find highly rewarding. The participant also relays concerns that children and young people with this profile of cognition and communication, are unable to understand, moderate or manage the drive to engage with screens. She has found that this group of learners can be highly distracted and driven to seek out screen time, with sometimes substantially higher motivation for screens than engagement with people or other objects. Teacher C reflected that high-tech communication approaches, which include the use of a digital tablet with a screen, can be implemented with this group following recommendation from various professionals, with an expectation for it to be effective straight away without the extensive preparation and teaching that needs to happen to allow meaningful use of the system. This can then lead to the removal of the approach, without sufficient opportunity for learning.

“ iPad communication device is given to a child without any of the modelling, or any of the teaching going in. And I find children just kind of listening to the words. It just becomes a high-tech version of a musical toy, as opposed to all of the teaching that needs to go into that.”

- Teacher C

7.3.2 Stakeholder Priorities

Teacher C reflected that different stakeholders can have different priorities which can interact to create a barrier to the effectiveness of teaching. One such example is health staff wishing to change protocols to complete care regimes (such as feeding and giving medication) in a designated space within the classroom, which then necessitates disruption of teaching, moving the child or young person to the designated space and reducing the naturalistic opportunity for interaction with peers and support staff. As care routines need to be completed regularly throughout the day, repeated interruptions can have a cumulative effect.

7.3.3 Staff

Children and young people in this cohort often require individualised support to meet personal care needs, but also to support learning and development. Therefore, there is a high ratio of adults fulfilling the roll of learning and health care staff within the classroom, who are required to support implementation of communication approaches, overseen by the qualified teacher. Staff training, changes in staffing and staff confidence are cited as barriers to implementing effective communication approaches. Staff availability to take on duties and run with skilled implementation of individualised communication teaching can be limited and without the relevant

expertise, can lead to unsatisfactory outcomes. This subsequently requires strategic consideration and planning, allowing Teacher C to coach staff more closely, and to provide more direct individual time teaching children and young people, in place of other timetabled activities. A particular aspect of staff confidence noted is that staff can find it difficult to overcome feelings of 'silliness' when implementing intensive interaction approaches when imitating the sounds and vocalisations of children and young people with PMLD.

7.3.3.1 Staff Motivation and Retention

Teacher C discussed elements of staff motivation to join and remain in the workforce. One example outlined was the need for staff to be motivated enough to be able to tolerate their own feelings of 'boredom', when offering highly consistent and regular repetition to support learning. Sustaining the necessary enthusiasm and attention to detail when offering longitudinal repetition, is cited as a significant barrier to provision of the most effective teaching.

Teacher C discussed difficulties with staff retention. One reason given was the relatively low pay that teaching assistants and that the increasing cost of living is forcing individuals to take higher paying roles. Another reason cited was the psychological experiences of staff in conjunction with fulfilling the duties of this role specifically. Staff have struggled to cope with the death of children they have supported in school, and have experienced significant grief and bereavement which has impacted upon their ability to be present and performing to their fullest. Teacher C reflected that the climate in the classroom can be fragile and that small changes can generate difficulties with staff satisfaction.

7.4 Sources of Knowledge

7.4.1 Pre-training experience

Teacher C was aware that she wanted to be a teacher of special needs, following a work experience placement aged sixteen. She also demonstrated an early interest in teaching a PMLD cohort and has remained working with this group, sharing her skill set in other contexts outside of the classroom, which is indicative of a clear personal vocation. She was able to work as a teaching assistant alongside formal initial teacher training and reports picking up much of the relevant skill set from this experience, which was in contrast to the formal initial teacher training which was not preparative. From being a teaching assistant, the participating teacher was able to inherit generational knowledge from teachers of this cohort that were in post at that time, citing switch-based approaches as a favoured choice of those teachers. Teacher C has gone on to develop the use of switches in a way that she feels is more appropriate and targeted, reducing conflated uses of switches across contexts which makes the purpose of switch use clearer to children and young people.

7.4.2 Courses

Further formal training on visual impairment solidified the participants interest in working with children and young people with visual impairment and provided a foundation which is evident across sources of this case study. The participant considers the impact of visual impairment in different contexts and draws parallels between visual impairment and other sensory and communication needs. Whilst this training may not have been tailored for teaching children with PMLD with visual impairment, Teacher C synthesises other sources of professional knowledge to make the skill set applicable to her cohort.

She also cites that externally sourced courses and within school inset are cited as sources of professional knowledge, naming trainers such as Les Staves and Flo Longhorn. Whilst holding a degree of criticality about the content of the training, the participant described the experience as exciting and as something that changed her thinking and remained in her professional conscience over several years. She also referenced intensive interaction training in the same manner, citing that whilst it was simple opened new thinking which changed practice for the better.

7.4.3 Formal and Informal Discourse: Reading, Social Media and Networking

“I'm bookish. So yeah, I keep up with what's coming out in books and I have specific areas of interest. [.....] I follow quite a lot on social media. which means that I find links into all kinds of other stuff that I'm interested in..”

- Teacher C

Teacher C is self-propelled in following developments in discourse and publications and has taken proactive measures to remain updated, engaging in reading during personal and holiday time in matters relating to PMLD education that she finds interesting. She is also following social media accounts that share content about children with special needs and living/working with children with special needs, which allows for informal perspectives to be understood and to collect new practical ideas and approaches from around the world. The way in which social media algorithms work also means that this can have a snowball effect, and more content can be directed towards individuals without an active need to seek it out. Despite having limited access to professional networks that consist of teachers teaching PMLD

learners specifically, wider relationships and networking has allowed for a broader circle of contacts, who are mutually benefitting from discussions, consultation, and shared interest. For example, business owners that are creating unique products for people with special needs and disabilities, and occupational therapy/sensory based consultancy.

Parent C also outlines their expectation that decision making around trying new communication approaches would be rooted in the professional's seeking information from education and reading.

"I would like to think that some they've been educated in that [approach], or, you know, read about it, know that it's worked for so and so."

- Parent C

7.4.4 International experience

Teacher C also has a high degree of international experience working with communities and children with complex learning needs. She appears to have used this experience to develop broader professional awareness and knowledge, outside of the social constructs of a British special school to conceptualise in-depth applied understanding of needs, the role of community, culture and the developmental trajectory of children and young people in respect of entirely different societal systems and contexts. She shared details of her own subsequent conceptualisation of interacting factors that contribute to special educational need, relevant to norms and culture. From experience special educational needs outside of a British context she has been able to understand commonalities and differences, and this has increased technical understanding and her own reflexivity.

7.4.5 Multidisciplinary Influences

“I have not ever, in my 15 years in PMLD, had an Ed Psych in my room to work with a child.”

- Teacher C

Teacher C explained how her view of educational psychologists was impacted very early on in her career, whereby the educational psychologist did not step in or take action to find help when a child with severe needs demonstrated high levels of distress during their observation. Teacher C was clear that generally, she didn't know the full extent of the educational psychology role and didn't see how the role could fit in to support her professionally. Teacher C reflected that training delivered by educational psychologists to teaching assistants had been pitched too technically high and had not 'landed' with the hoped for impact. In contrast, Teacher C highly valued the input of speech and language therapists who have worked directly with teaching assistants to develop skill and confidence, this is valued by Teacher C as it translated to clearly tangible improvement. She reflected that she is very confident in her own practice, and that formal multidisciplinary input, whilst valued, isn't always essential in her own professional development. She has clear ideas about how she would use other professionals to support her own development, namely discussion around relevant research, findings, and writings however scarcity of time and formal professional opportunities prohibit this. Parent C also noted that she had not had any contact with educational psychology since assessment for statement of special educational needs over 10 years ago and did not see a role for educational psychology pertaining to her child and the development of her child's communication now.

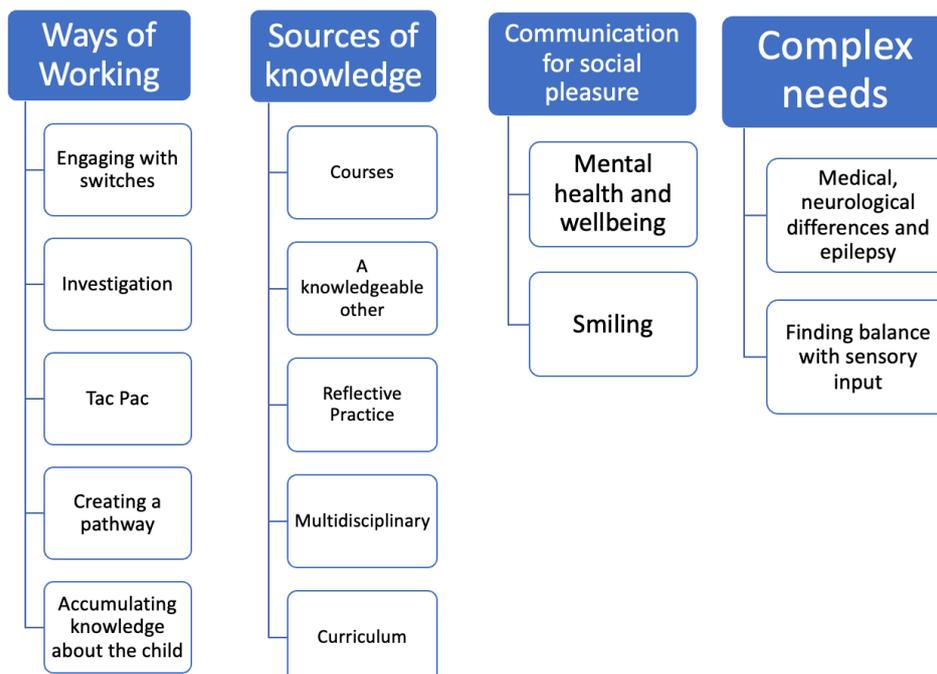
Chapter 8: Case D

8.1 Context

Teacher D works in a special school with less than 100 children on role, in the South West of England, that caters predominantly for children with complex needs. She completed her initial teacher training with a Bachelor of Education. She did not intend to teach in a specialist school when she embarked on her teacher training. However, she completed a short optional special school placement during training. Through professional contacts, her first post-qualifying job was with a cohort of PMLD learners. Her subsequent experience of working with PMLD cohorts is divided in two parts, and is separated by experience teaching in mainstream, being a SENDCo in mainstream and working in other designations of special school such as with children who had needs related to primary diagnoses of Autism.

Figure 5

Thematic map for case study.



8.2 Ways of Working

8.2.1 Engaging with switches

Teacher D remarks on her preference for switch-based approaches, and this is reflected in the commentary provided by Parent D, who discussed the role of switches in her child's development and as something that is being actively worked towards and her agreement with this direction alongside other methods. Teacher D supports the development of using switches to understand cause and effect as a basis with a rewarding outcome for the pressing of a switch, which develops in to supporting 'requesting'. Teacher D commented on how the role of other professionals can be supportive in developing use of switches, for example, an occupational therapist advising on the range of physical movement that a child has and supplying switches.

8.2.2 Investigation

Both Teacher D and Parent D discuss the ongoing role of investigation and 'finding out' about the child's skills, abilities, and aptitudes, in relation to bettering communication outcome and making decisions about the way in which to work with the child to develop communication. The process of investigation is described as perhaps the most valuable central work that occurs in relation to communication teaching by Teacher D, and forms the basis for much of the work itself. Teacher D also discusses the prospect of children 'taking the lead' by showing that they are ready, and that a mentality around ongoing investigation allows children the opportunity to signal through engagement or progress, that this is the way they would like to work.

8.2.3 Tac Pac

Tac Pac is also named as a key preference for Teacher D. Teacher D utilises the Tac Pac programme to support investigation and finding out, and is a preferred way of working for Teacher D. She stated in interview that Tac Pac is carried out every morning, that teaching assistants take notes and Teacher D will also observe. From the way pupils response to various aspects of Tac Pac, Teacher D makes plans to transfer the engagement and identified skill, out of the Tac Pac session and integrate into other aspects of the day, such as in to a sensory story.

8.2.4 Creating a pathway

Teacher D discusses how in gathering information about the child's ability, she is concurrently projecting where she envisions the child could be in the future with regards to communicative ability. She then tailors the focus of IEPs and targets, in keeping with the aspirational outcomes. She has in mind a pathway of steps, actions, areas for development and ways of working with communication approaches which descend from this pathway to the future. Understanding of the child's ability is gathered through ongoing teacher assessment, open dialogue with parent and carers and professionals such as occupational therapist, nurses and speech and language therapists. Parent D reflected the extent to which she is comfortable thinking about for her child's future is limited, preferring not to think too far ahead. Parent D reiterated that she has a high degree of faith and trust in the practice and plans of Teacher D.

8.2.5 Accumulating knowledge about the child

Teacher D is clear that the purpose of communication focused work is to ascertain through investigative processes the strengths of a child. Once the teacher is aware of strengths and needs, she can move forward with a detailed conceptualisation of possibility and subsequent direction. In line with the principles of communication partners, understanding the child well is evidence of effectiveness as this can increase the way in which the child's expression is interpreted in a way that will lead to their needs being met, them being comfortable and expressing that they are happy. Teacher D reflected that she will test and look for reliable responses when delivering communication teaching and that this can involve using less preferred activities. Parent D is also notably active in making decisions based on accumulated knowledge about her child, explaining that as things have become clearer and health needs have been addressed, she has been able to commission private professionals to develop her child's communication skills in a purposeful manner.

8.3 Communication for social pleasure

8.3.1 Mental Health and Wellbeing

Parent D is clear that one of the primary purposes for her child to gain from school attendance is to experience a sense of happiness, safety and wellbeing and that this comes first and foremost, precipitating more formal educational development.

“The most important thing for CHILD’S NAME is she needs to feel safe and happy. They are our key things. And they’ve always been on fundamentals, since she joined here. That said, obviously, she’s gone beyond feeling safe and happy, because that is now a given. And the important things for her to take away is that she can learn

she can better herself, she can make progress, and she can feel proud of herself for those making those achievements.”

- Parent D

Teacher D regularly references the importance she places on enhancing and developing communication for the purpose of enhancing wellbeing and ensuring good mental health. She has spent time considering the experiences that children and young people have and how their social isolation compounds traumatic or emotionally difficult experiences and how this can be compounded by underestimating the depth of emotional experiences that this group of learners can experience. She reflected that a young person who recently made good progress in using their communication approach was able to ask questions that adults would not have previously expected the child had the capability to ask, furthermore, the child's line of questioning was linked to highly complex emotional experiences, Teacher D expressed concern about children being locked in with emotions without a means to express them and that children may experience a decline in mental health with no way to signal for support, emphasising the need to develop communication in a way that will best enable emotional expression.

“I think we have to be of the mind that they do know what they want to say and they do understand what's going on. And we have to give them the respect and the opportunity to voice that in some way. Otherwise, how will that impact their mental health? So I think the communication it's empowering is it's supporting their mental health. It's giving them a voice of some kind. Because everything else, especially for the children in my class, is done to them, they don't have a choice? Sometimes I think to my own children, who are verbal and who are able to

communicate and tell me exactly how they're feeling. They can tell me 'I've just had a really bad day school'. But we need to be able to give children in my class as much of an opportunity to be able to somehow communicate [that]. I do feel quite passionate about it."

- Teacher D

She is clear that children should engage in communication for social pleasure, for the purposes of connection and enjoyment. She is concerned that difficulties with expressive communication leads to a natural consequence of reduced opportunities to signal when things feel emotionally difficult for her cohort of learners, and to be understood and acknowledged as having an emotional experience. Parent D also reported on the value of being able to communicate for social purpose and stated that the present communication approach has opened the capacity for communication between her and her child, which allows for a much-desired sense of connection and togetherness.

"I can have conversation with my little girl that I couldn't do before, [.....] But yeah, a big deal [.....] we always knew CHILD'S NAME is 'in there', if that makes sense. But now [.....]she's making herself heard, which is massive. It's amazing. She's lovely."

- Parent D

Teacher D has a clear preference for the children in her class to 'be children' first and foremost and to have an experience of fun alongside others, and ways of working need to incorporate a sense of fun, play and togetherness.

“it's about using all their senses, giving lots of opportunities to communicate develop independence and also have a nice time. [.....] You want them to have experience enjoyment, things to be fun, like it should be for a seven or eight year old!”

- Teacher D

“But I genuinely just believe that everybody working with CHILD’S NAME has got CHILD’S NAME, and her happiness and her wellbeing, and the fact that she clearly wants to engage and to progress and to do well and she is so determined. I feel like that they've got that, and they understand that, and that's in the forefront of everything.”

- Parent D

8.3.2 Smiling

Both Teacher D and Parent D cited smiling and demonstrating happiness through facial expression, micro expressions, body posture, whole body movement and vocalisations as a sign of effectiveness, as happiness and a sense of safety. A sense of safety and experiencing happiness is cited by both participants in this case as a key outcome of all teaching, learning and time at school. The rationale being that communicative attempts are being met, as needs, and wants are being met. Smiling (or an individual’s identified way of expressing a smile) is also recognised as evidence of affirmation from the child, or a way of saying ‘yes’, where the opposite is recognised as way of declining or saying ‘no’. Teacher D also cited the role of play and her desire for children to simply have fun and enjoy themselves at school.

8.4 Sources of knowledge

8.4.1 Courses

Teacher D conveyed with certainty that she did not feel her initial teacher training developed her professional knowledge in a way that was conducive to teaching communication to children and young people with PMLD.

“I can tell you where it [professional knowledge regarding communication teaching for PMLD] didn’t come from, it didn’t come anywhere from my degree. It did not come from that.”

- Teacher D

Reflective Commentary: Considering my own professional knowledge and the development of professional knowledge, I would not attribute the learning from my undergraduate degree to the practical skills I use to carry out my current role. However, I do feel that soft skills such as criticality, professionalism, adaptability, and curiosity were formed through engagement in undergraduate study. I am curious about the formative skills that were taken from teacher training and how they may underpin developing communication for this group of children and young people. More ‘discrete’ soft skills are more evident in Teacher D’s reflections where she demonstrates differentiation of pace, problem solving, self-appraisal and criticality, which would indirectly support development of any skill, for any child.

She reflected on some of her experiences of course offered for teachers with PMLD and reiterated that they were often not fit for purpose, and she felt isolated on those courses where she voiced that she didn’t think that the methods or approaches would be effective for her class.

“I’m like ‘they really can’t do that’. And someone was being like, ‘I just I feel like you’re putting barriers up. You’re being negative’. I wasn’t being negative: this is the reality of the children that I am supporting. They cannot access it in that way. And I

left that training, I got nothing from this. Been here all day, the school has spent however much money on this. So, there isn't a whole lot available."

- Teacher D

Conversely, she stated that Tac Pac training was useful, Teacher D reflected throughout both the interview and reflection that she has a significant preference for Tac Pac and uses aspects of the programme very regularly.

"I took the official tac pac training, learned lots from that. That was really positive."

- Teacher D

8.4.2 A knowledgeable other

Teacher D has most frequently cited one of the most valuable sources of professional knowledge as teachers who have come before her and the knowledge of very experienced teaching assistants including a specialist communication higher level teaching assistant, who offer a wealth of practical experience.

"I think it's experience and years of working with experienced colleagues. If I'm honest. I've got a member staff, a teaching assistant, she's worked within this sector for 20 odd years. She is just a fountain of knowledge. And she's brilliant. So I watch her a lot, I gained a lot from her and the teachers that I've worked with in this school"

- Teacher D

She also detailed how the practice and advice of other experienced teachers who do not work with PMLD cohorts specifically, but can offer advice that is applicable to some individual children and young people in Teacher D's class, for example,

children with visual impairment. Teacher D also reflected that parents have shaped her professional knowledge by sharing information about ways they work with, relate and interact with their child at home which is also reflected by Parent D.

“I've stepped in, and been able to be heard and listened to and supported by the class teacher [.....] [where I have needed to say] let's not run before we can walk kind of thing, so as not to overwhelm CHILD'S NAME, I very much have been listened to.’

8.4.3 Reflective practice

Teacher D demonstrated criticality around her own practice. She reflected on the practice that used to be commonplace when she first entered the profession, and how she can now retrospectively see the problems and flaws with her own historical practice, which has shaped the values, motivation, and technical knowledge about the way she works now. She reflected the disparity between past and present practice demonstrates to her the collective shift in values, skill, and knowledge with her profession.

“I'm holding up hands and then you're looking at which hand what does that mean? That means nothing. 15 years ago, that made sense, that's what you were doing. Now, we're nowhere near that and I think you look back on that, and we could only do then, what we knew at that time. Knowledge that we had, the skills as a school, we could only work with that. But now, I see children, because we've developed that actually communicate with us in their own way. Not just 'you have to look at either hand and tell me your answer'”

- Teacher D

8.4.4 Multi-disciplinary

Teacher D reflected on the value that she has gained professionally from working with multidisciplinary professionals, namely an occupational therapist who has a regular presence in the school. She also reflected that she has gained some professional knowledge from working with SALT that was privately commissioned by the family of a child in her class. This has translated to a collaborative relationship that has allowed a bi-directional sharing of professional information which Teacher D feels has been mutually beneficial. Parent D spoke about the value of having a multi-disciplinary team in occupational therapists and speech and language around her child who are working collaboratively in her child's best interest and how Teacher D is instrumental in participating and facilitating this. She also noted the limited role that Educational Psychology have played, and that she could not envision how the role could fit in to the picture.

"we feel really lucky that CHILD'S NAME has got such a supportive team within school and I don't think she'd be where she is communication wise without them. The OT found an avenue and we've gone through it together. Class are doing exactly as they've been sort of advised to [...] she has private speech and language therapy and support [...] if we didn't have such an accommodating class teacher, as we've got in TEACHER'S NAME. I don't think it would be as smooth and well communicated between us as a group. [...] I've had very little involvement with Educational Psychologist. I know CHILD'S NAME has been assessed by one in the past to get an EHCP. But my feeling is that it's kind of beyond the remit of what can

be offered. I don't know of an Educational Psychologist that has been able to come in and suggest anything worth sharing for CHILD'S NAME. I could see where it would work in terms of some of the children at SCHOOL NAME, [...] but potentially those more physically able, more able to engage in different programmes of work and therapies and stuff. But I don't really know where an Educational Psychologist fits in, in our life and in our circle”

-Parent D

8.4.5 Curriculum

Teacher D highlights the bi-directional role of the curriculum which has clear communication related outcomes integrated. Teacher D has been instrumental in developing the curriculum that the school use for their children and young people, using routes for learning as a basis combined with the existing curriculum the school had in place. Teacher D has refined this further in line with practice-based evidence and incorporating school specific values and individual ways of working over the years. In this way, children have a role in shaping their own curriculum as Teacher D gains practice-based evidence from working with these children and young people, which translates to the curriculum the children then work to. The curriculum also helps to identify areas of strength and need, which can be used to formulate Individual Education Plan goals for the term. Teacher D also reflected that the curriculum demonstrates an accumulation of professional knowledge specific to this group. The curriculum is also used to assess progress, and therefore is also pertinent to understanding effectiveness of communication teaching.

The use of Routes for Learning as a foundation for the curriculum developed by Teacher D also means that the Route Maps can be used for assessment. Both linear and lateral development is captured by the route maps and helps Teacher D understand where there are gaps in the progression of communication skills. Marking progression using Routes for learning route maps is evidence of effectiveness that is rooted in the evidence base, as the route maps emerge from the evidence base.

8.5. Complex needs

8.5.1 Medical, Neurological Differences and Epilepsy

Teacher D regularly referenced the role of Epilepsy and seizure activity in creating a barrier to children and young people engaging with teaching at school. She reflected that some children could have frequent seizures which result in the need to sleep after, or children could have clusters of seizures throughout the day, and at these times, they are not able to engage in learning. This is reflected in Parent D's attribution of her child's progress in communication, being related to making better sense of seizures and finding medication that reduced seizure activity.

"She would have several clusters of these in a day and through the night, but obviously, the time in which you're seizing, she can't focus or concentrate. And then, therefore, like her ability to focus, concentrate, learn and interact was significantly reduced. So as soon as we managed to introduce a new medication that seemed to really settle all of that down. We don't feel it's coincidental that everything else

seems to pick up with CHILD'S NAME and her ability to interact, she can engage more."

– Parent D

Teacher D also reflected how epilepsy and neurological differences can interrupt normal patterns of sleep, and that some children will sleep in rigid sleep-wake cycles, which mean that for weeks at a time, children's primary sleep cycle falls within the hours of the school day, which means that blocks of learning are missed in a cyclical pattern. Furthermore, medical treatment that requires periods of hospitalisation can create a barrier to progress as there is an interruption to regular learning input, experiences, and routines.

Teacher D also discussed the role of pain in relation to health and medical need and that children and young people who are feeling unwell, tired and in pain do not have the capacity to apply themselves. This is further complicated when children and young people cannot express their pain, with Teacher D reflecting that sometimes children are not able to cry to relay their pain, reinforcing the need to find a way to express need so that children are able to indicate when something isn't okay.

"our children can't always communicate that to us, sometimes some of them will cry. Sometimes we don't even see that. That's why it's also really important to have communication that can some way tell us in a reliable way that somethings not okay."

- Teacher D

8.5.2 Finding balance with sensory input

Teacher D referred throughout to the role of sensory processing and how understanding and moderating sensory input, is a way of ensuring that children and young people are effectively accessing communication teaching. For example, when children and young people decrease in tactile defensiveness, they are better able to engage in communication teaching because they can engage by having their hands available for switches, by being awake, opening their eyes and tolerating on-body signing. As opposed to trying to moderate their own sensory experiences by holding their hands in, opting out by falling asleep or keeping eyes closed. Teacher D also reflected on the sensory stimulus throughout related to issues such as offering praise, and that she will moderate the way in which she delivers praise considering the way children and young people respond to different tones of voice, volume, and physical proximity.

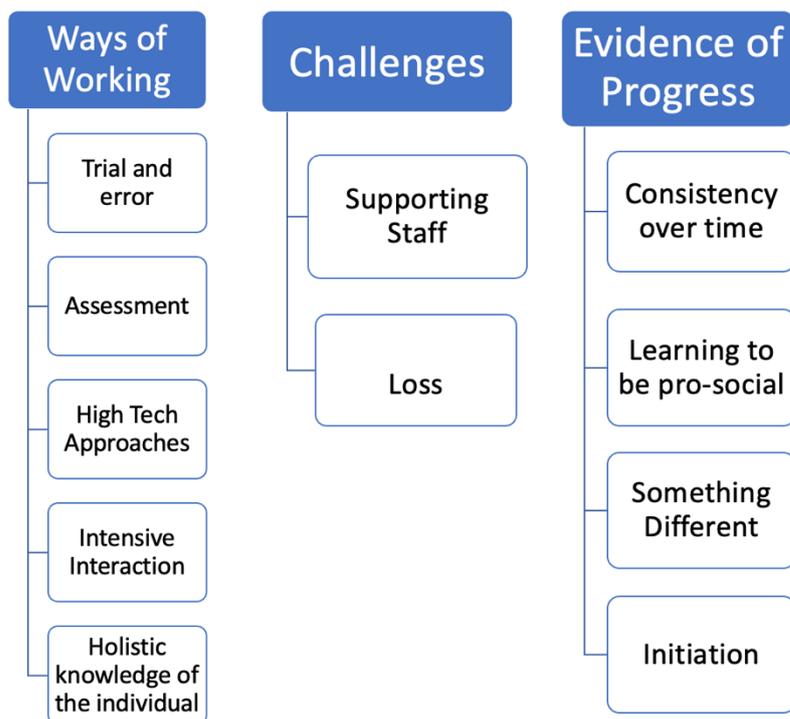
Chapter 9: Case Study E

9.1 Context

At the time of data collection, Teacher E had 25 years of experience teaching learners with PMLD. She began teacher training through a PGCE, in the knowledge that she wanted to teach children with special needs, having completed work as a young adult, working with adults with special needs. She works at a large special school, with over 200 children on roll, in the South East of England.

Figure 6

Thematic map for case study E



9.2 Ways of Working

9.2.1 Trial and error

Teacher E regularly references a total communication approach, outlining that different approaches are used co-currently across the whole cohort and with individuals.

“We as a school, we adopted total communication approach. So that's about not using any one strategy with a child, but we use all the different strategies, and we might use different strategies in different situations.”

- Teacher E

This means that children whose capacity for using any given approach can fluctuate, will more often than not have a means of communication which is acceptable and accessible to them. One example of this is having fixed printed symbols on a tray attached to a young person's wheelchair, in addition to the use of an eye gaze computer. Having more simplified and numerous methods of communicating is also supportive of communication in spaces where technology use isn't appropriate or logistically possible, such as when in the bathroom. However, not all communication approaches will be accessible or appropriate for all children and young people, both participants describe the trial-and-error processes that can be involved in finding optimal approaches, Teacher E discusses trial and error coupled with assessment and knowledge of the individual child.

“through trial and error a lot of the time I mean, as I said, we're a total communication school. So we generally use all communication approaches with every child.

Obviously, knowing the student's developmental level is really important.....knowing

that if a student is at that pre linguistic stage, that actually, symbols are not relevant for them. Knowing that sort of distinction is really important.”

- Teacher E

Parent E also references the process of trialling new things within the parameters of what the team around their child know to be needed.

“So it's like, playing around with different resources. Obviously, repetition and routine based, and obviously, we all have to be on the same page with it.”

- Parent E

9.2.2 Assessment

Teacher E has an additional role, that focuses on assessment across the wider school. She referenced the use of P-Scales, which was a previous assessment framework for children who were not yet engaged in subject specific learning. She discussed how P-Scales continue to complement her own understanding of where a child or young person might be in their readiness for certain communication approaches. Teacher E gave an example of a child working within the P1-P2 bracket, would unlikely be ready to orientate to and understand symbols. Teacher E reflected on how the P-Scales gave professionals a common framework and more accurate shared understanding of need that was more standardised. Teacher E reflected that the engagement model is completely different method and tool to support assessment. Teacher E outlines that the engagement model is dependent on ipsative assessment whereby the assessor needs to be aware of the child's previous attainment in order to contrast and compare over time. However, with the idiosyncratic nature of PMLD learners cognitive, communicative and health profiles,

this can be challenging to capture. This has implications for inexperienced teachers in that they do not have a concrete framework to support understanding of progression. Teacher E also discussed Routes for Learning (Welsh Assembly Government , 2006) and the routeways which do give more concrete opportunity to guide assessment and planning direction for communication learning. Routes for Learning is utilised by Teacher E, however, not in its purest intended form as there is still a degree of 'linear' progression around its use. Teacher E relays how much of the skill in working with children and young people with PMLD lies in skill making accurate and meaningful assessment, and this appears to have deeper meaning related to seeing the whole child, and seeing the person holistically and entirely deserving of being understood.

9.2.3 High Tech Approaches

The use of technology by Teacher E to support communication development is referenced by both Teacher E and Parent E and appears to be highly valued within this case study. Both Teacher E and Parent E are clear on the benefits of using of high-tech communication aids, such as eye gaze, language generating iPads and Switches.

“They can use it to tell you something's wrong. They can tell me they've got a headache or a tummy ache. And that's important to be able to tell somebody something's wrong. But also, they interacted with you [the researcher]. You're [researcher] a stranger, you know? What communication would they have had without that?”

- Teacher E

Parent E reflected that they had been keen to introduce high tech approaches for some time, and their child's placement with Teacher E has enabled this, albeit later than they would have hoped.

"I wish he'd been doing it a few years ago. I wish he was doing what he's doing now, a few years ago when he was a bit younger. Because we've always said, you know, there must be something out there some other communication that hasn't been developed. [.....] And I always had this vision for CHILD'S NAME. Being able to use a device, even if he's looking at something. Nothing is impossible."

- Parent E

Teacher E demonstrated reflection around several aspects of utilising high tech communication support, such as having stamina for switching and eye gaze and the benefit of having access to a tech support service.

9.2.4 Intensive Interaction

Teacher E opted to reflect on a period of intensive interaction practice, focused together on a shared activity using high-tech equipment. She reflected on the sense of connection that she experiences, the ability to hold the child's communicative patterns in mind and be ready to receive them. She detailed how intensive interaction is mutually enjoyable and opened a way of working that validated and raised up connection with learners.

"in terms of intensive interaction, I had a I had a student with autism and she was very into herself and she had done a lot of Applied Behaviour Analysis (ABA) stuff."

And she could do all these tasks but not interact socially at all. Parents really wanted to do this ABA, and we were like, we have to balance it with something else in this young person's life. It's not just about learning to do tasks. And so we put into practice Intensive Interaction alongside it, and really saw her blossom into someone who, who was really enjoying socially being with people as well as being able to do these tasks.”

- Teacher E

Planning with holistic knowledge of the individual

Teacher E and Parent E both reference the value of person-centred planning.

Teacher E explains how there is a vast opportunity to remain person centred and creative in the planning of provision for children and young people with PMLD due to the flexibility of the engagement model, even in comparison to the provision that is more cognitively able students within the same special school. Teacher E reflected that in using formal assessment and the team around the children noticing small changes, provision can be planned in a flexible and individualised way. Parent E referenced that person centred practice was what she was looking for, when viewing schools in preparation in trying to name a school for her child.

“I was looking for interaction. I’m talking about person centred care. I was looking at the engagement and I was looking for the environment, how safe it looked. And very child friendly [.....] that nurturing, and how they were engaging with disabilities, with complex children[...] if my son was to go somewhere and they don’t know CHILD’S NAME, they would probably find it difficult. They wouldn’t know how to communicate with him. They have got to be able to understand that person, their wants and needs”

- Parent E

9.3 Challenges

9.3.1 Supporting staff

Teacher E reflected that the co-ordination of support staff and management of the dynamic in the classroom is an element which requires skill. Leadership in the context of the physical classroom and the operational activity of the space, resource and staff is something that can quickly fall into disarray without the co-ordinating presence and hierarchical role of the class teacher. Teacher E reflected that staff can find it challenging to co-ordinate everything that needs to happen between themselves in the classroom, when she is not physically in the classroom. She reflected this is because there is so much to do, with so many conflicting variables to consider for each child that can change quickly. Children and young people need to have an appropriate level of support at all times to ensure their safety and wellbeing, which means a careful balance needs to be achieved to ensure wellbeing.

Loss

Teacher E was able to reflect briefly on the salience of loss, grief, and bereavement in her role and professional context. She reflected that she attends funerals frequently. To her knowledge, she has never received a critical incident response or benefit from the support of an external agency or local authority following the bereavement, and that internal inset with a focus on grief was put in place previously. Teacher D reflected that a prognosis of short lives can shape priorities for practice in school. An example of this is where degenerative conditions are a feature of the child or young person's presentation, it is often the desire of the adults around the child to provide as much joy, experience, and connectedness as possible

and that the push for formal learning and attainment can fall in the list of priorities regarding time and resource. The awareness of short lives and the multifaceted implications of this, is also not always an awareness shared across the wider system and those who do not have direct experience or understand the nature of working with children and young people with PMLD, which poses an additional challenge.

9.4 Evidence of progress

9.4.1 Consistency over time

Teacher E and Parent E emphasise the importance of consistency for children and young people with PMLD. Parent E references the need for repetition of the same routines repeatedly and that the consistency helps their child to remain orientated to where they are and what's happening. The provision of a successful and reliable routine that supports the young person's orientation in time and space increases capacity for engagement. Parent E also values the role of familiar and consistent faces in both supporting adults and peers, Parent E reflected that it is those who support children and young people with complex needs everyday are the people they deem most qualified in understanding the reality, needs and nuance of children and young people with PMLD. Professionals that are perhaps more formally qualified but are not consistent and present over time are perceived to have less awareness and expertise. Parent E also reflected that often some professionals can overestimate their expertise.

Parent E: "when you've got EXTERNAL ORGANISATION, that says that they 'understand disability', well disabilities are very wide, it's [the spectrum of disability]"

huge. I think sometimes, even with a social worker, they think they know. They think they understand disabilities, but they don't.

Researcher- "Who do you think, other than yourself, understands YOUNG PERSON'S NAME the best?"

Parent E: "The people that do know him best, the people who come in to contact, which is the direct people that see him day in day out."

Teacher E references the need for consistency of approach, and that inexperienced staff will often state that an approach has been ineffective where they have been trying for a few weeks, where Teacher E would expect some approaches to take years to embed and that the underestimation for the need for consistency and repetition to support development can be problematic. She also commented on the length of time it takes to get to know children and young people with complex needs, and how consistently being their teacher over a number of years is helpful in facilitating development.

"You get a new student into your class, and honestly, even come Christmas, you're still not finished building that relationship. Yeah, it takes a good six months."

- Teacher E

"He would stay in the same classroom with the same class [...] for about two and a half years, maybe 3 years. Yes. And he would be comfortable with that. I mean, with a child with complex needs, it's difficult to actually keep changing things for the child

[...] it's good if the children are kept within the same classroom. It might sound a bit odd, but I think other parents like us, would think the same."

- Parent E

9.4.2 Learning to be pro-social

Teacher E is clear in her view that communication aids such as speech generating hardware and switches that make noise, should not be physically removed in response to use of the communication aids by the child or young person, which generates challenge for adults. For example, repetitive pressing of a switch, use of profanity using eye gaze or speech generating tech should not lead to the item being taken away, as a means of quietening the child or young person. She reflected that as with typically developing children, technical language is not the only aspect that needs to be mastered, and that being pro-social is another aspect of communication learning that all children and young people need to be supported to understand. She reflects that use of speech or sound generating technology requires management and teaching from staff, and in the same way that a typically developing child's voice cannot simply be taken away, neither should a child's communication tech. She reflects that staff need to take steps to manage behaviour that challenges adults and support children and young people to learn how to be pro-social in the use of their equipment, as part of communication teaching. This included supporting the understanding of audience and context.

9.4.3 Something Different

Teacher E outlined in interview and reflection that noticing the child doing something different is often a sign of progression. The complex nature of the presentation of

children and young people often means that skills, behaviours, and expression can remain the same for months or years at a time, so the arrival of even small changes can be seen as indicative of effectiveness, and with continuation of the consistent approach or work being completed, clearer and tangible change can emerge.

9.4.4 Initiation

Teacher E discusses across interview and reflection the action of initiation by children and young people as a key feature of communicative skills. She reflected that in her view the ability to initiate interaction is an indicator of effectiveness of development in communication, and that in demonstrating the knowledge they need to initiate, a child or young person is able to more effectively gain attention and signal wants and needs. Further to this, children and young people having the ability to initiate and then ask for something specific, as opposed to having to choose from options offered by the adults, is also a hoped-for outcome for Teacher E.

“He's very good at shouting until you respond if something's not right, so he's really good self-advocacy in that way. But he can't initiate the ‘actually, I would like to watch the [TV SHOW]. Or, actually, I'd like a head massage please’. So yeah, I really want to give him a voice to be able to make some of those choices without someone sitting with him [and offering the auditory list].”

-Teacher E

Chapter : 10 Cross Case Analysis

Borman et al. (2006) highlight that whilst single cases can provide detailed understanding, multiple cases allow for greater opportunity to generalise across several representations of the phenomenon. Through the comparison of cases the researcher can highlight generalities and the conditions under which findings occurred.

From a similarity perspective, some of the themes highlighted during the cross-case analysis began to be constructed at the point of data collection, with some aspects of clear and well-defined repetitive reporting across all or some of the cases. It serves to offer fundamental and foundational information about the professional knowledge, values, motivation that are arguably transferable to the wider population and practice of this professional group. The differences also offer insight into the possible dimensions of the professional knowledge of this group pertaining to communication intervention and approaches.

10.1 At the core of our work

Teachers consistently reported that they did not view themselves as carrying out communication 'intervention' to develop communication skills. All participating teachers described communication as central to what they do, as part of teaching, all of the time. Participating teachers were more willing to refer to the work that is done by visiting professionals (even if they were based within school full time) as carrying out intervention work. There were instances across cases where a child's decline in health or a specific issue arose, that warranted a concentrated period of focused work for communication, but this was not conceptualised as an intervention. This

usually involved multiagency professionals and wider systemic consideration. Some teachers also discussed rigidity and commitment to their own timetable, may mean that timetabled sessions that have a clear focus on communication could perhaps be considered an intervention, but the fact that it was central to their work, offered as standard throughout the year and that communication skills are one of the core outcomes for this group detracted from this time being conceptualised as an intervention.

10.2 Assessment to support holistic and individualised knowledge about the child

From the reflective interviews with teacher participants specifically, it is very clear that holistic and individualised, in-depth and intimate knowledge about the likes, dislikes, needs, temperament, communication style, capacity and capabilities were central to practice and was considered as important by teacher and parent participants alike. Understand and knowing a child well is seen as evidence of effectiveness, due to the subtle nature of children and young people's communicative patterns. Skilled assessment and investigation is seen as central to this process, as is the value of time spent with the child and young person. Relevant targets and goals that emerge from assessment are developed and set, including the view of the parents and in some cases other professionals who are regularly involved. EHCP outcomes do not typically govern the way in which teachers decide to work, the impact of the advice gathered to write the initial plan is superseded through the annual review process, where outcomes and provision can be amended by those at the annual review meeting. Additionally, some teacher participants reported that EHCP's are not being routinely updated by local authorities following

submission of paperwork year to year, further reducing the perceived usefulness of the plan within school.

10.3 Person centred planning, looking ahead to adulthood and beyond

The aforementioned holistic and individualised knowledge about the child and young person was used in differing ways across cases and varied in description, however, could be conceptualised as Person centred planning for now and the future. In all cases, all teachers discussed preparation to adulthood for children and young people. Discussion about preparation and transition to adulthood contained emotive language and participants expressed repeated fears and concerns about what happens when children and young people reach 18 or 19 years old, 2 teacher participants discussed the legacy of last century's institutional care models for people with disabilities, and how this influences their views on adult services. The transition to adulthood was primarily discussed in terms of systemic factors, and what 'coming of age' means with regards to where young people will live, spend their time, who will provide medical care and the type of support they will be offered moving forward.

Some parent participants in contrast often referred to 'not thinking too far ahead' when considering hopes and aspirations for their own child. Teacher participants appeared in some cases to do the thinking ahead 'on behalf' of the parent. Some parents stated that they struggled to look ahead, attributing this to their own personal acceptance of the degree of their child's needs or medical prognosis. For teachers, the direction and motivation of their work was often shaped by looking ahead. The degree of motivation generated for the majority of teacher participants work around

making the development of communication a priority, tailoring their work and decision making around communication teaching, apprehension and concern about adult services and how this will be for the children and young people.

10.4 A clear 'No'

In all instances, all teacher's wanted for all of their students to be able to communicate a clear 'no' response. This took different forms, in that some teachers described young people gently pushing the object being declined away, looking at a 'no' card, or indicating 'no' on an eye-gaze. Teachers were also aspirational for a clear 'yes' response developed either laterally or after the 'no' response was secured. They were all without exception hopefully for young people to eventually be engaging in a method of active choice making between things, and initiating communication with intent. Parent participants also routinely expressed their desire for their children to be able to self-advocate and express their wants and needs through a communication approach.

"Our aim is really for our students to leave school, better equipped to have their say in the world. So even if it's on a very simple, very basic level, like being able to display likes and dislikes, that's massive. I always think if you can say no, to anything that is incredibly empowering".

- Teacher B

"For me, the point of what I'm doing is that they are able to show some choice and some control in their adult service, or in their adult life. So if I can, if I can transfer

them on to going beyond me with an effective yes, no, that's, that's my dream. At least an effective no. So that they can say they don't like things"

- Teacher C

"I think for me it's always they need to have in place a reliable communication method for them to be able to communicate a preference to say, yes, no, I don't want that. That's not okay. I'm not happy. To express their emotions, to be as independent as they possibly can."

- Teacher D

"And it's important in life to be able to choose, choose what you want, be that at a simple level, or a more complex level, you know, to be able to say 'no' to something you don't like, and to have a way of doing that, that people understand."

- Teacher E

Reasons for wanting to develop a clear no was so that children and young people can decline things that they do not like, or do not want done to them. Teachers demonstrated an awareness which they hold in the forefront of their practice, that this cohort of children and young people are 'done unto' and that the ability to decline increases autonomy within meeting care needs and engaging in activities on any given day and as such, increases wellbeing. Some also cited that in achieving a method of declining or saying no, reduced behaviour that challenges adults, such as pushing, hitting out and utilising 'screaming' vocalisations as an expressive method. Participants were clear that this reduction of behaviour that challenges adults,

increased the quality of intersubjectivity between staff and the child or young people, which was then beneficial to the child or young person.

10.5 Parent involvement

There was a notable difference across all cases on the reported role, involvement and participation of parents in relation to the development of communication.

In some cases, the parent and teacher had daily contact using online forums, a direct telephone line to the classroom, or contact at drop off and pick up, which allowed for continuous, open and as needed communication. Some teachers actively co-produced plans with parents and would make parents an integral part of the development of targets. Other cases, parents were more removed through use of school transport, some teacher participants reported that they felt confident to make decisions around the learning of children and young people themselves but maintained high levels of ad-hoc communication more generally regarding the care and wellbeing of children and young people.

Parent participants reported that they did not always implement strategies associated with communication approaches at home that were being used in school. Some parent participants reflected that they just didn't need them, because they know themselves through principles of attunement and their own in-depth knowledge of their child, what it is that their child needs or is trying to express and they have their own routines and preferences at home. Teacher participants reflected that they are also aware that the parents of all the children and young people in their classes don't always follow through with communication approaches at home, some teacher participants felt that this was unproblematic and distinguished activity at school from

activity at home, and others expressed that more consistency across home and school contexts would be supportive.

10.6 Communication for social pleasure, wellbeing, and mental health.

In all instances, teachers and parent participants made some reference to the purpose of communication for social pleasure, integration into social groups and/or how the mental health and wellbeing of children and young people with PMLD is impacted upon by difficulties with communication. Whilst descriptions of communicating for social pleasure differed, participants were clear that this is one of the primary purposes for developing communication and that it was not just for technical outcomes, such as language acquisition and being able to request or decline care rituals, activities or objects. Teachers referenced social play, the challenges that children and young people have in accessing social play, and the challenges faced by participants in gaining skill in how to best foster social play and a need for research, training, and instruction in this domain. Teacher and parent participants discussed mental health and the impact of isolation and lack of connection, sense making and construction of identity, and the need for therapeutic input following the trauma experienced by children and young people in respect of being neglected, taken into care or medical trauma. Parents were very clear that communicating for social pleasure, connection and sharing spaces with other children and young people who communicate like their child is a significant aspect of what their child gains from time at school.

10.7 Intensive Interaction

All teacher participants and some parent participants stated that intensive interaction was a valuable, effective, and welcome approach. Participants felt that intensive interaction was useful for technical development of communication skills, but was especially useful for the purpose of connection, pleasure, and supporting experiences. Three teacher participants commented on the training specifically, they found it exciting, and it appeared to give them a language, framework, and rationale to practice in a way that is congruent with their values and beliefs. Teachers reflected on how other behaviourist approaches (such as applied behaviour analysis and conditioning) which did not 'sit right' were able to be put aside to make way for something else that leads to a greater sense of care and connection. A consistent barrier to use of intensive interaction which was cited across various cases, was teaching assistants and support staff struggling to overcome feelings of embarrassment and uncertainty when copying the sounds, vocalisations and actions of children and young people with PMLD. Teacher participants report that staff can feel self-conscious and can become concerned that they are 'doing it wrong' or that they are patronising or infantilising children and young people. These factors are also represented in a literature review by Berridge and Hutchinson (2021) which focused on implementing intensive interaction in social care settings.

10.8 Teacher's experiences of parenting and early years

Becoming a parent or the experience of parenting to both typically developing children and children with additional need were cited across multiple cases as a source of professional knowledge for the teacher, in relation to teaching this group of learners. Teacher and parent participants described how through attuning to preverbal children of their own, they were able to cue in to subtle facial and whole-

body movements, which they came to understand as having functional communicative intent in that their infants were signalling a need, which they were able to meet.

With regards to typically developing children, participants explained how observing the development of their children and their child's communicative abilities were rapid and spontaneous, often not needing conscious consideration or support. From observing the development of eye contact, to gesturing and speech, this gave participants further insight into the linear developmental processes that typically occur, and that their pupils may yet need to go through, to progress on to gaining higher level skills. Teacher participants also spoke about the challenges that their pupils faced from a developmental perspective and how behaviour they observed in their own young children, at a certain age, gave insight and context into the stage of development each pupil is in and ideas for differentiated input. Three teacher participants also referenced the value of understanding early child development in an educational context, in relation to their practice. They felt that having more in-depth knowledge about early years development would give a basis of knowledge to draw upon as they had built an experiential awareness through incidental observations that they found relevant to their thinking, this is supported by findings described by Shipton and O'Nions (2019) who also found a need for a greater foundational understanding of child development.

With regards to becoming a parent to a child with additional needs, participating teachers (where relevant) and parent participants reflected on how this enabled them to better understand the systemic and cultural challenges that children with

additional needs face, in a world that is not designed for them. Participants who had children with need also felt that they were more 'savvy' and demonstrated an increased degree of awareness and criticality regarding systems, policy, and organisational differences that impact on their child's life. They demonstrated in-depth awareness about services and what they could and couldn't provide.

10.9 Managing Staff

One of the natural consequences of having PMLD learners together in a class or cohort, is that the classroom is always occupied with a very high ratio of adults. Due to the needs of this group of learners, which can include extensive personal care needs, health needs such as airway or seizure management and learning needs which require individualised support, high levels of repetition and close physical proximity, it's necessary for teaching to be delivered through the support of a learning and health care assistant. This means that the class teachers often need to upskill adults who join the classroom in communication approaches, foster confidence, over-see operational activity of and manage the dynamic between large groups of adults in the space to ensure the smooth running of the day and that the environment is conducive for learning. The skill set associated with line management of adults in the classroom was a feature for all participating teachers and frequently cited as a source of occupational stress and concern, with activities associated with managing adults in the classroom requiring a large portion of teacher time and attention. Participants consistently reflected that support staff are paid relatively low wages, despite having a high degree of skill in offering personal care, medical care and specialist education support to children and young people. Support staff operate in a high stake's environment, taking care of children and young people that they

come to experience emotional investment in. Even though there is a clear need for the classrooms in this context to be operationally effective and environmentally attuned, many participating teachers had not received additional training on people management, conflict management or offering emotional support to staff.

High staff turnover and difficulties in filling vacancies was also consistently a difficulty cited by teachers as having an impact on their ability to develop communication.

Teachers locate this problem in the aforementioned low pay, emotional and physical burnout, the impact of loss and bereavement associated with the role and the impact COVID-19 had on healthcare workers. However, difficulty recruiting and retaining can necessitate use of agency staff, which whilst supportive of fulfilling care need does not allow for skilled support of communication development with the degree of consistency that is needed to move forward. The need for consistency to support development of communication in the face of staff recruitment and retention challenges, places increased pressure on the teachers and core support staff who do remain, perpetuating feelings of stress and burnout.

10.10 Professional Networks and Relationships

A theme that was evident from within several case studies was that of opportunities to shape professional knowledge at a time where the internet is providing more connectivity between professional and training providers. Some participants also referenced the use of social media algorithms to keep them up to date with informal discourse and enables them a view into the personal and professional lives of others in a similar position. This appears to be particularly relevant to this study, as previous writings and discourse have highlighted how isolated this group of teachers are. With

regards to face-to-face opportunities, teacher and parent participants report continued difficulties sourcing networking opportunities outside the school community. Parent participants reported that it was difficult to source any kind of group, course of learning which focuses on developing communication for children with complex needs. Teacher participants report that they often remain geographically isolated due to the relatively low population of teachers who teach this group. Some teacher participants reflected that it can be difficult to connect with other teachers and staff even within school, due to tight time constraints.

10.11 Outsiders: Time and lived experience.

Often, the most valued 'currency' in respect of who is considered as having expertise in supporting the development of children and young people with PMLD, by teacher and parent participants, was the amount of time spent supporting children and young people with PMLD, irrespective of role, level of education or training. Participants across case studies reflected how highly experienced teaching assistants, health care assistants and highly experienced teachers provided a wealth of practical strategies and insight in to how to help their learners succeed. A lack of lived experience and time spent with people with PMLD was also cited as a reason that participating teachers and parents were wary about professionals. Participants demonstrated a greater degree of trust and respect for the opinion of professionals with whom they had had the most regular contact and experience with. On-site physiotherapists, speech and language therapists, occupational therapist and nurses were cited as being valuable source of professional knowledge and as possessing knowledge that informed decision making for participating teachers and supported parents in developing an understanding of how they can support their child. Whereas

those with less contact and broader areas of expertise such as medical doctors, social workers and psychologists were deemed as being less useful and whose opinion had less weighting for participants and were cited as unlikely sources of knowledge acquisition.

10.12 Adjustment, loss, grief, and bereavement

Themes of loss grief and bereavement are underpinned in several themes. Both teacher and parent participants reflected on the journey of adjustment that parents go through when they have a child with a degree of need that they were not expecting. Teachers discussed the loss and multiple frequent bereavements they experience in relation to their role due to complex medical needs of the majority of their pupils. Teachers were open in discussing the impact that they noticed this had of support staff and upon the children and young people who have lost a peer, but were less open regarding the emotional impact that loss and bereavement had on themselves. Teacher's experiences of an external critical incident response differed, with some having contact from an educational psychologist or external multidisciplinary professional as part of a critical incident response, but the majority did not. Teachers were more open about the emotional impact on themselves when children and young people move on from their care, having taught them, seen and spent time with them daily and built close and intimate relationships with families and caregivers for sometimes over a decade. Some parent participants referenced the role of adjustment in relation to becoming a parent to a child with complex needs, and indicated that the school and teacher had a role in supporting the process of adjustment directly and indirectly.

10.13 Use of Technology

Views on the usefulness and downfalls of communication approaches using high-tech equipment (such as Eye-gaze, iPads and Magic Carpet™) was a topic with a high degree of variance in views between teacher participants. Some teachers held a critical view of high-tech, citing the level of over-stimulation that can occur for children and young people from orientating to screens for prolonged periods and difficulty moderating or understanding the addictive nature of screen-use. Some teachers also commented on how high-tech aids can lead adults around a child to perceive that the child has communicative skill that they do not yet have, impacting the quality of assessment. This could be that the child is engaging more for the purpose of exploring cause and effect, or they're enjoying the sensory input in the form of lights and sound that the screen generates, rather than consistently demonstrating comprehension. Other teacher participants and most parent participants felt that high tech communication aids provided children and young people with the opportunity to express more complex emotional and practical experiences and that high tech has been instrumental in reaching and opening the social world of children who are 'locked in' by their physical condition. Parent participants generally appeared to view high tech approaches as favourable. Parent and teacher participants reported that in some cases, children had more cognitive and communicative capability than the team around the child were initially aware of. Accounts of children and young people who following introduction of high -tech communication aids were able to ask pertinent questions, show communication partners images to signal a desire to connect with key people and even relay details of their day at school and frustrations with their routines, the way adults were communicating with them and the way in which their care needs were being met.

10.14 Educational psychologists

Across all teacher and parent participants, experience of working with educational psychologists was limited, with some teaching participants purporting to have never met or worked with an educational psychologist. Most participating parents largely describe educational psychologists as someone they met at the beginning of their child's educational journey, as part of the assessment for a statement of need or EHCP, which in turn, allowed for attendance at special school. Some reported educational psychologists as having a role in providing evidence in court where families had filed against medical negligence. Other than this, participants were not aware of the role of educational psychologists and shared a view that they are generally scarce, thin on the ground and don't offer depth or new information in relation to children and young people with PMLD. Parent and teacher participants also felt that educational psychologists did not possess knowledge or skills that could enhance their understanding or practice regarding the development of communication, or their professional development more generally, except for offering emotional support for staff and families surrounding medical need or following the death of a child or young person in one school where educational psychology time was purchased. For the most part, educational psychologists were viewed neutrally or negatively.

10.15 Values and Emotions

The personal values of teacher and parent participants were variable in how clearly they could be identified. Some participants were explicit about the values and beliefs that precipitated their thoughts, rationale and decision making, and others

demonstrated less criticality or openness to conceptualise their values in relation to their work, but their values came through in the way they described their decision making and practice regardless. It is evident that values and emotion are likely highly influential in the work that teacher participants do and within the parent participants appraisal of what is most important in life. The aforementioned process of becoming a parent, a high degree of empathy, choosing ways of working which 'feel right', reflecting on current and previous practice that didn't feel right, the impact of bereavement and losses, and the value placed on the opinions of those who spend time with children and young people with PMLD as opposed to those who do not, demonstrate the role that values and emotions have. Further exploration of the role of individual and shared values, and emotional experiences in the practice of teaching learners with PMLD would be powerful to understand more.

Chapter 11: Discussion

11.1 Chapter overview

Here the findings will be discussed in response to each research questions, in order.

11.2 RQ 1 - How do teachers select communication intervention/approaches for pupils with PMLD?

The purpose of this question was to understand how key adults decide on which approach to use to support the development of communication for children and young people. The aims and purpose of developing communication for learners with PMLD is described first and is supportive of understanding how teachers and parents choose to conceptualise and work with and alongside children and young people with PMLD.

11.2.1 Establishing the purpose

Teacher participants were almost unanimous in their view that they do not provide 'communication intervention', but that communication teaching is in fact central to everything that they do when teaching children and young people with PMLD. This position is salient to outline at the beginning of the discussion, as the scope of themes which answer the research questions are broader than initially anticipated, due to participants locating development of communication in 'everything' to some degree.

Participants discussed the development of communication from both a technical perspective (with a predominant focus on developing reliable and recognisable affirmative and negative responses as a minimum), but also and for the purpose of social pleasure and connection. Teacher and parent participants were clear about

the value of relational working, the need for consistent adults and longitudinal relationships. A key psychological theory related to the emphasis placed upon the relational practice is that of attachment. Bowlby (1969) describes secondary attachment figures as people with whom children develop authentic attachment relationships with, which could include school staff. Howe (2006) outlines that children with disabilities may be more likely to have more complex attachment profiles due to differences in behaviour, interaction and communication within key attachment relationships, in addition to differentials in parental availability and capacity as a result of increased economic, practical and medical stressors, which further highlights the importance of consistent secondary attachment figures, who place an emphasis on the role of their relationship with the child and young person. Participants rarely referenced theories of attachment, despite describing intentions, actions and experiences that would be conceptualised and directly align with these theoretical principles. Further conceptualisation of the purpose of developing warm and reliable attachment relationships, which precipitate and support the development and facilitation of communication, could be supportive in providing a recognised theoretical framework for teachers to talk about and evidence the value of their work.

A significant preference for intensive interaction as an approach is highlighted, but this preference was also often paired with participant's self-identification of values, ideas and interest that were aligned with theories of attachment and interpersonal synchrony. Teacher participants stated that discovery of intensive interaction as a communication approach marked a shift away from practice that emerged from behaviourist and cognitive principles, such as Applied Behavioural Analysis (ABA) or classical conditioning, which many reflected 'just didn't feel right'. Xavier et al. (2016)

offers a developmental perspective on the role of interpersonal synchrony, a feature of intersubjectivity. Xavier suggests that the first aspects of synchrony to develop is with mimicry and that through mimicry, individuals can establish a concept of others being 'like me', a principle on which social cognition is built. They outline that detection and evaluation of interpersonal synchrony is critical to understanding the fundamentals of social cognition.

11.2.2 - Assessment, knowledge about the individual child or young person, a capabilities approach and Person-Centred Planning.

Teacher and parent participants were clear that in order support communication, it is essential to have a strong conceptualisation of what the child or young person can do communicatively, cognitively, physically and in the context of their health needs. This requires ongoing investigation and skilled assessment by the teacher. The presiding engagement model curriculum currently in place in England, requires teacher's to be skilled in ipsative assessment, which likely poses a challenge to early career teachers or those who are new to supporting complex needs. Professional confidence and skill in assessing children and young people's communicative capacity is seen as instrumental in allowing appropriate decision making around ways of working. Triangulating observations and assessments with support staff and parents, is a common practice, and utilisation of parents is perhaps more prevalent in the absence of other teachers who teach PMLD available to corroborate assessment in the physical vicinity.

In addition to tools such as 'Routes for Learning' (Welsh Assembly Government 2006) and individual teacher's assessment tools which they develop themselves over time teachers have ideas about shaping targets to sit within the learner's capabilities. This provides evidence in support of Sissons et al. (2023) suggestion that Nussbaum's (2007) central capabilities approach provides an option to enhance curricula and to understand how individual outcomes can be shaped in the context of the individual's capabilities. Participants frequently described very similar thinking and practice in line with the tenants of Nussbaum's capabilities approach but did not explicitly connect in descriptions theory underpinning their work. Having the robust understanding of where a child is situated in relation to themselves, their keys adults, and the rest of a bioecological system, as described by Bronfenbrenner and Morris (2006), appropriately precipitates the process of person-centred planning.

Person-Centred Planning is described by Mansell and Beadle-Brown (2004) as being positively framed and focusing on aspirations and capacities rather than deficits, involving the whole breadth of an individual's social system as opposed to formal service systems, and is focused on providing the support to achieve the individual's goals, whatever they may be, as opposed to goals that would be generated within the limitations and boundaries of any given service. Person centred planning has long been considered a useful approach in supporting individuals with PMLD (PMLD Network, 2003), however few participants described formal engagement with it as a process. The explicit use of Person centred planning techniques for teachers and parents could be supportive of generating shared language and a migratable framework, that would capture strengths, identified resources within the wider system and the aspirational goals for communication. A

common framework for planning could also prompt consideration outside of a teacher's practice-based evidence to widen the scope of factors to consider, and support transfer of key knowledge about the individual across classes, key stages, schools and beyond.

11.3 RQ 2 - How do teachers and parents understand where intervention/approaches are effective for pupils with PMLD?

The purpose of this research question is to understand how key adults know when ways of working with children and young people with PMLD are effective. Teacher and parent participants regularly stated that the happiness and wellbeing of children and young people, being authentically understood and connected with, and enabled to experience were the foremost indicators of effective practice and what most participants wanted to achieve, concepts which fit with the concept of a capability approach.

11.3.1 Understanding idiosyncratic profiles and knowing the child well.

Holistic, longitudinal, and robust knowledge about the individual child derived from skilled assessment and time spent with the child, was seen as a co-constructed marker of effectiveness in and of itself (as well as being supportive to the aforementioned decision making in RQ1) by several parent and teacher participants. Intimate relationships and in-depth knowledge collected about the child over time is successful as it indicates that expression in its subtle forms is being interpreted effectively by communication partners and leads to children and young people 'getting what they want', having more opportunities for independence through active

choice making and a sense of relaxation by their cues being interpreted correctly and becoming well known as an individual.

11.3.2 Meeting targets, including lateral and retained skills

Setting of appropriate targets in the manner described in 11.2.2 is relevant here.

Targets descends from teacher assessment, knowing the child well, the parent's aspirations and sometimes, views of multidisciplinary professionals. Children empirically and objectively meeting their individualised targets, or moving towards them is seen as progress.

11.3.3 - Quality of life

All participants described that the biggest marker of effective provision is for children and young people to appear settled, as though they feel a state of safety and security and happiness, through reduction of tactile defensiveness, smiling, vocalising, and opting in where they are able to. There was also a focus on the ability to reliably give an affirmative or negative response in changing internal and external conditions, in order to ensure that children and young people are able to advocate for themselves to some extent. The quality-of-life argument is long standing and well established in identifying where things are going well (Mansell, 2010), and is corroborated by the findings of these case studies.

11.4 RQ 3 - What are the barriers to teachers implementing effective intervention/approaches for pupils with PMLD?

11.4.1 In the context of the system

Whilst the focus of the study was to understand the professional knowledge related to developing communication for children and young people with PMLD, throughout data collection it became clear how salient the role of the systems around children and young people with high level complex needs is, in relation to practice.

Bronfenbrenner and Morris (2006) highlight the ecology of human development, and how for children, the synergetic interrelations between themselves and their environment are instrumental in determining how developmental processes occur and unfold. For children and young people with PMLD, the relationship between themselves and the ecological system in which they exist is perhaps even more relevant and can be supportive in understanding proximal processes that generate barriers. I will therefore use the model to scaffold the discussion of findings to illustrate the barriers identified in the findings.

11.4.1.1. Individual Factors

At an individual level, all participants discussed to some degree the extent to which complex medical needs created a barrier to the availability of children and young people in accessing teaching. Often, parent and teacher participants discussed the role of epilepsy and seizures in reducing the amount of time that children were cognitively able to engage in learning. In this context medical presentation and needs are conceptualised as fixed within child features, which require sensitivity, care, and flexibility. However, the degree of flexibility that can be offered is limited by factors such as the prescribed length of the school day and the degree of medical care that can be provided within the school environment which are determined by policy within the macrosystem. School staff attempt to overcome this within the microsystem by continuing contact with children when they are in hospital or home

for longer periods related to health needs, with the provision of on-site nurses and seizure management plans.

11.4.1. Microsystem: Staff

The role of support staff is clearly represented in all case studies. For some teacher participants, they could often expect to have a core team of adults which outnumber the children in their classroom, with a high volume of 'visitors' such as parents, nursing and health care staff, physiotherapists, and other specialists too. Support staff are also often expected to carry out high-stakes tasks such as airway management, administering medication and following seizure protocols in close physical proximity whilst sharing resources. Teacher participants relayed that this often leads to high levels of stress, and a subsequent strain on the interpersonal relationships between support staff. Lemieux-Charles and McGuire (2006) found that factors related to collaboration, conflict resolution, participation and cohesion influence the team's perception of its effectiveness and staff levels of satisfaction, from an extensive literature review examining health care team effectiveness, suggesting a role for applied social psychology framework in this domain.

Incidences of interpersonal conflict subsequently often need to be managed by the class teacher. Teacher participants repeatedly reported that they found this aspect of the role challenging. They often stated that they felt unprepared for this in commencing their role, therefore measures to increase confidence in people management in an intense and sometimes stressful environment may be warranted. Teachers reflected that things often flowed better once the team had the chance to find a sense of flow and cohesion with each other. Group development theory

(Tuckman, 1965) which outlines the stages teams must go through in order to establish a functional dynamic, forming, storming, norming and performing may be applicable here in supporting understanding of the dynamic.

11.4.1.3. Mesosystem: The relationships between staff, leadership, and external agencies

Policy and ways of working determined by people who were not well versed in the reality of existing in the microsystems of children and young people with PMLD, were also repeatedly described as a barrier. For example, external regulators, such as Ofsted inspectors, who were not aware of the degree of need of this group of learners and what that looks like in terms of realistic, effective, and important life outcomes for pupils could create misplaced pressure. Teachers also referenced that within school senior leadership and dichotomy between what school leadership understand of teaching PMLD and the reality as an unhelpful systemic interaction. Teachers reflected that in most cases this was overcome by trusting relationships between senior leadership and themselves, whereby leaders sent a message of “We don’t understand what you’re doing or why, but we trust you”. This is in line with the findings reported by Stewart (2016), who identified a juxtaposition between political macro structures and micro ideals of teachers providing the teaching, concluding that teachers are ‘on their own’ and ‘are themselves’ the curriculum, through construction of pedagogic practices that work for the children in their class, as opposed to generating practice through a coherent system of suitable policy and practice, even at a within school level. The concept of the teacher being the curriculum without the support of an appropriate infrastructure, arguably leads to a lack of supportive challenge for teachers of learners with PMLD, from within their own management

structure and a reduced opportunity for authentic appraisal and recognition of the work that they do.

11.4.1.4 Macrosystem: The child, staff and an external critical incident response

There was a theme of adjustment, loss, grief, and bereavement and the emotional impact of teaching this cohort across case studies for teacher participants, who expressed concern primarily for staff and other children and young people who experience loss or trauma, but also upon themselves. Children and young people with PMLD often have complex and life limiting medical conditions. Serious medical episodes or death of a child or young person, who teachers had in their current or previous cohorts or were taught in their school community were reported to happen sometimes more than once a year, three of the five teacher participants reported never having had a critical incident response offer from the local authority.

A critical incident is conceptualised as an unanticipated, sudden, distressing event or sequence of event which overwhelms the normal coping mechanism of a school community in the UK education context (Beeke, 2011), examples of incidents that precipitate a critical incident response include the sudden death of a child, member of staff, acts of violence or witnessing highly traumatic events, (Bennett et al. 2021). 80% of local authorities report offering or being involved in a critical incident response (Department for Education, 2000) and educational psychologists are often commissioned to attend a school to offer support following a critical incident. Due to the complex health needs of children and young people with complex health needs, the medical prognosis of a short life may therefore render their death as expected,

and therefore, not defined as a critical incident depending on the policy of the presiding local authority (Beeke, 2011). This is represented in the low reporting in this study, of support offered to teacher participants following the death of children they teach or have taught. Teachers reported that in some cases, whilst the health status of a child could be longitudinally fragile, a sudden change or decline in health meant that the loss was unexpected to them. Furthermore, children and young people who lose classmates may not have expected the loss. Young (2016) found that a range of grief reactions have been observed and reported upon in individuals with PMLD. Young (2017) goes on to suggest that there are additional factors which place people with complex needs at greater risk of complicated grieving. In the interest of equitable access to systemic critical incident response which supports adults, and increase's the school system's capacity to address the loss appropriately for children and young people.

In some cases, teacher participants reported that the impact of the death of pupils upon support staff led to them to struggle with their own wellbeing, availability, and capacity to carry out their role with confidence, with some resigning from their position. The loss of experienced, skilled, and dedicated staff inevitably leads to a barrier in implementing skilled teaching, including communication teaching, due to attrition of knowledge and experience.

Macrosystem: Ableism in outsiders

“To be ‘told’ without empathy for your situation reinforces the damage – and it still happens. Fortunately, we have learned to ignore experts.” (Mansell, 2010)

Reflective commentary:

As a result of my own reflection throughout reading, planning, data collection and writing, I have noticed and considered previously unconscious ableist biases in my own thinking, and how these biases have interacted with my conceptualisation of what would serve as an appropriate rationale, an ethical approach, appropriate research questions, methodology and method. The degree to which I have found my own biases to pervade my thinking leads me to consider how ableist views have influenced by previous practice and worldview. But if this is the case for me, perhaps this is also inadvertently the case for the wider profession of educational psychology and other helping professions. This could be prevalent in relation to practice and research around PMLD matters, the role boundaries in which educational psychologists conceptualise for themselves and how they approach work with children and young people with PMLD and their families. When participants press the matter of outsiders 'not getting it' - I wonder if what they are infact referring to ableist biases that lie at the foundation of pervasive social norms, that they perceive can only authentically be overcome through lived experience of knowing and caring about somebody with complex needs and confronting the extent of discrimination those with complex needs face.

Teacher and parent participant accounts of access to, and utilisation of educational psychologists was limited, they also reported that many external 'visiting' multidisciplinary professionals were not seen as particularly helpful or qualified to contribute. Several participants spoke about medical professionals with criticality and were clear that doctors were not always able to provide them with reliable prognoses or advice. Most parent participants were clear that they felt mainstream schools and teachers would not be able to respond to the needs of their child, due to lack of understanding.

The majority of participants felt that educational psychologists were limited to report writing, and could not generate ideas on how an educational psychologist could enhance teacher practice, enhance the educational experiences of children or bring new knowledge to the forefront. Some participants were able to compare their experiences of educational psychologist, such as participant experiences of working in mainstream schools, where the presence of educational psychology was reported

to 'make more sense'. The findings of this project, when coupled with the findings of Winter and Bunn (2019) who detailed that there were limited ideas from educational psychologists regarding their role in PMLD settings, suggest that there is a lack of role clarity, experience, and opportunities to build working relationships between educational psychologists and key stake holders within PMLD to focus on communication and beyond.

Emery et al. (2022) conducted a literature review that examined publications in prominent journals of educational psychology over the course of ten years, and found that students with disabilities are represented in 11.4% of published studies. They argue that the relative scarcity of literature being produced in the field of educational psychology relating to pupils with disabilities is suggestive of a lack of regard towards these groups in projects generated, by the research arm of the profession. Berne et al. (2018) provide 10 principles of disability justice, including recognising wholeness and anti-capitalist politic. This supports the practice of understanding and celebrating the individual for who they are, and seeing the worth of the individual outside of their objective 'productivity', which often determines worth through a capitalist lens. Application of these principles may support criticality of equality and diversity practices at individual, systems or policy level for multidisciplinary professionals approaching work with this group of children and young people, and their key adults.

11.4.1.6 Chronosystem: The future

Teacher participants were clear and consistent in their reporting that primary motivations for persisting in the development of more formal and technical forms of

communication, was preoccupation with that happens when children and young people 'age out' of education and need to access adult services. Walmsley et al. (2017) highlight that families often do not trust the state to provide consistent and safe care, drawing attention to serious and critical failures in adult social care, such as the Winterbourne View abuse, which was made public in 2011. The preoccupation of adults within the microsystem, about the future of children and young people in the current socio-political climate, appears to be highly influential. The motivation and desire of key adults to develop more formal methods of communication 'within-child', that could be understood by people who do not know the individual well is significant in these case studies. In the absence of this concern, it's reasonable to expect that the ways in which teachers decide to work with children and young people regarding the development of communication may be substantially different.

11.5 RQ 4 - How do teachers come to learn/know how to develop the communication of pupils with PMLD through intervention/approaches?

The purpose of this question is to understand how teachers develop relevant knowledge, skills and experience that are central to developing communication of children in their care.

11.5.1 Training

Most teacher participants reported that they did not find their initial teacher training preparative for the role of teaching children and young people with PMLD. The majority of teacher participants were aware that they wanted to work with children and young people with special needs, due to having prior experience of working with

complex needs in jobs that they had when they were younger, such as work experience or roles in health and social care, which corroborates findings outlined by Salt (2010). Additional training that focuses specifically on the needs of learners with PMLD named as useful included Tac Pac, Intensive Interaction and Sensory Curriculums. These short courses were felt to be directly supportive of professional skills to develop communication. Some teacher participants had a special interest such as autism and visual impairment and found that they were able to apply relevant aspects to their learners. Parent participants reported few to no opportunities to engage in formal training that would support them in understanding how to develop their child's communication skills at home.

Teachers relay that experiential learning through work alongside more knowledgeable others and becoming a parent expanded their professional knowledge. Therefore, considering ways to validate alternative means of continuous professional development may warrant consideration,. This could include integration of formalised reflective practice frameworks and methods, (such as use of video-stimulated reflection) which could be implemented as an approach. Training which facilitates developing, supporting and enhancing systems around the child may be more readily available than training that focuses on working directly with children and young people with PMLD. Findings from this study suggest that training on people management, operational co-ordination and conflict management could provide teachers with more in-depth skills in respect of managing systemic complexity and providing an environment which is more conducive to the unique needs of their learners in context.

11.5.2 Observational knowledge of early years development

The role of becoming a parent or observing children in the early years through contact with friends or family stimulated thinking, reflection, and consideration in most teacher participants about how early childhood development relates directly to their work with children with PMLD, this was an unexpected finding for me as a researcher. Further to this, three out of five parent participants had fulfilled professional roles in educational settings, this may be due to participants being self-selecting in this study, they may have had more of an interest in educational aspect of the study, in addition to being parents of a children with complex needs. Whilst it was not the intention of the study to examine the way in which professional experiences influence the role of being a parent, these case studies highlight that knowledge that is transferable from professional to home and home to professional contexts, and that this appears to be occurring naturally on an incidental basis. It therefore may be salient to consider how explicit use of developmental psychology could support technical knowledge for this group of teachers and parents. Whilst children and young people with PMLD are unique in their individual profile of strengths and needs, and are not necessarily following a typical developmental trajectory, supporting adults to approach interaction and provision with a deeper understanding of developmental stages of infancy and the early years with confidence could be supportive, and confirms the findings described by Shipton and O'Nions (2019). Relevant psychological frameworks that may be of particular interest to provide training on include theories and findings from research which underpin popular and familiar practices for this professional group, such as intensive interaction, whereby deeper understanding of intersubjectivity (Trevarthen & Aitken, 2001; Nind & Thomas 2005) could enhance practice.

11.5.3. Guided by values and reflection

The role of personal values across participant accounts of experiences was incredibly pertinent. All teacher and most parent participants appeared deeply motivated and driven by their values, and demonstrated frustration with people and systems that appear to lack similar core values, did not understand the need for value driven approaches and decisions when working with this cohort, or completely misaligned with the teacher's objectives. Participants also demonstrated reflection on previous practices and how learning from past mistakes from a values and emotions perspective and not doing things that 'didn't feel right' is supportive of practice. Measures which bring increased awareness and nurture to the individual values that appear to be at the forefront for teachers who teach children and young people with PMLD may also be supportive in recognising each person's value base and understanding it's influence in practice. A key related psychological framework to consider in relation to these findings specifically, is that of self-concept and the importance of actual-self and ideal-self congruence, where individuals are able to exist inline with their personal values, through activities including work (Rogers, 1963). Wang and Hall (2019) comment of the importance of the congruence between personal values and that of the teaching role, and a greater sense of wellbeing, satisfaction, and persistence where teacher values matched that of the organisation with who they worked for.

11.5.4. Experts by experience

One of the most consistent messages from teacher and parent participants is that those who have not had longitudinal and direct experience living or working with people with PMLD 'do not get it', this extended to participant's view of professionals

who could routinely be involved with children and young people with PMLD. Many participants expressed a belief that many professionals irrespective of their training, are not qualified in their opinions, through an inherent lack of understanding of the nuanced life-worlds of children and young people with PMLD, and the realities of their key adults. Teachers who had spent many years working with children and young people were comfortable in assuming the role of experts, describing this as their niche and often, vocation. They were most likely to gain advice from others who are practically experienced, irrespective of the level of formal training. This was supported by the parent participants, who were all clear that they had a high degree of faith and trust in their child's teacher. Engagement in more formal discourse and knowledge exchange, such as use of social media was only mentioned by one teacher participant, but it's growing popularity may increasingly support the transfer of anecdotal knowledge between practitioners who cannot share the same physical space, as many teachers of PMLD teachers work in isolation within their school and geographical area. The recent shift to remote working for many more professions (related to COVID-19) has led to a greater focus within research on developing skills and professionalism in circumstances where direct contact has not always been possible. Goldman and Stirling (2020) report that situated learning and community of practices using online forums allow professionals developing in physical isolation from one another to benefit from each other's experiences. As teachers of PMLD cohorts are identified as a group who are in some ways lacking a secure and shared professional identity, measures to overcome this are currently and actively being brought to the forefront due to advancements in the research resulting from increased awareness of isolated professionals since the COVID-19 pandemic began.

Chapter 12: Conclusion

12.1 Contribution to knowledge

This study contributes to knowledge in several ways which generates implications for teachers, parents, educational psychologists, and policy.

The study finds an emphasis on the importance of developing communication for both technical and social purposes and highlights that the way in which progress is conceptualised needs to be relevant to the lives of children and young people with PMLD and their capabilities. Conceptualising holistic and individualised knowledge about the young person as intrinsically valuable currency and central purpose to the work of developing a communication interface between the individual and the rest of the world is also contributory.

The study provides findings that warrant further consideration of a capabilities framework approach to assessment and utilisation of communication approaches, a recognisable and migratable person-centred planning tool and training offer for teachers working with learners with PMLD. Practice implications for teachers, EP's and policy are also identified.

12.2 Implications

12.2.1 Teacher Training and CPD

The sources of professional knowledge as described in the findings are vast, and vary between participants, locations, experiences and time practicing as a teacher. Findings suggest that teachers may benefit from accessing training that upskills

them in people and operational management to ensure that the environment, systems and interpersonal challenges within the classroom, that emerge from the nature of providing education for this group, are the most conducive to developing communication. Identifying, labelling, and getting to know the values that drive practice as professional strengths also warrants some consideration in this unique context. Some teacher and parent participants were also aware that they would benefit from more specialist training on early years development to help them better understand typical stages of development and how to support this for their children and young people, frameworks which may be helpful include attachment and intersubjectivity. Practical training on Intensive Interaction and Tac Pac were cited as valuable, and could be sought by those who are developing to teach this group.

12.2.2. Implications for educational psychologists

Participants reported limited experiences and understanding of the role, or potential role of educational psychology, regarding not only supporting the development of communication with this group of learners, but also a distinct lack of contact for this group of children, parents, and teachers altogether. Many participants locate the involvement of the educational psychologist as a 'check mark' exercise in the initial EHCP process, or as part of evidence giving in litigation processes where a medical negligence case is brought, they were not able to suggest what would be helpful. This suggests a bidirectional nature of the current relationship between educational psychologists and children and young people with PMLD and those who teach and care for them. Winter and Bunn (2019) relay that educational psychologists are somewhat lacking in innovation in their approach to work with this group. Norwich (2013) outlines the need for applied educational psychologists to become innovative

to ensure continuation of the distinctive role of educational psychologists. He postulates that this could be done by greater involvement in the definition of special needs and disability, that goes beyond the dualism of social and medical models, especially in conceptualising the function of education. More involvement in professional collaboration, not just scenarios in which they are the lead professional and greater involvement in the development of methods to assess and conceptualise intellectual functioning.

Educational psychologists are usually well versed in application of principles of person-centred planning and may have a role in facilitating person centred planning forums. Through use of joint problem solving and consultation skills educational psychologists are well placed to hold the balance between perspectives and introduce a degree of supportive challenge. However, educational psychologists also need to be aware of the acceptability of their presence in the space and understand the context of the experiences and hold themselves accountable in managing ableist biases. Findings of this study suggest that time spent alongside those with PMLD is seen as valuable to those within the system, and that interpersonal trust is key to validation of opinion. Norwich (2013) suggests that educational psychologist could take a role in professional collaboration, in which they do not lead. Being alongside and authentically hearing accounts and narratives of key individuals in the system experiences could be one way to immerse, understand and validate new thinking.

Findings in this study indicated that critical incident support is not typically offered to schools in instances where children and young people have died as part of a statutory offer. This could be due to policy outlining that 'expected deaths' are not

considered a critical incident, in line with Beeke (2011) definition. However, I argue that this position is fundamentally flawed, minimising the loss in the unique context of special schools, and denies the needs of school staff and children and young people, who are bereaved of friends. The present study suggests that loss of children and young people does influence the narrative, practice, and wellbeing of people within these contexts, deaths can be experienced as unexpected and can overwhelm the normal coping capacity of a school system which is disruptive of communication learning.

Some teacher participants who engaged with video stimulated reflection commented that it was a different experience, which enabled them to see their work holistically and to consider different aspects of their delivery more closely, reflecting on-action (Schon 1983). In addition to eliciting tacit knowledge of the teaching participant, reviewing the activity again from the recording was an opportunity for me, as the researcher, to see the activity occur more than once, and to slowly develop further insight supported by the reflections of the participating teacher. I noticed that some of my perspectives changed, and I had new ideas and thoughts about what I had seen in-action and what I was perceiving watching the practice play out for a second time. The process of recording the observations also meant that I was not under pressure to draw a quick and single-stranded view, opinion or conclusion in the moment. The use of video-stimulated reflection as a method in this study, supports use of video-stimulated reflection in both future research studies, but also functionality in supporting a broader range of educational psychology practice such as casework, professional development exercises, supervision, and lesson study to name but few.

12.2.3 – Reflections on the value and purpose of education

Through engaging with this research, I have been able to critically consider the broader role and value of education at individual, group, organisational and philosophical levels. The findings from this project highlight that teacher and parent participants locate the purpose of teaching communication skills in ensuring emotional wellbeing, communication for social pleasure and play, connection with others, experience for experience's sake and happiness. Parent and teacher participants were confident in naming this as a primary purpose of education for children and young people with PMLD, alongside a desire to develop independence and the ability to advocate for oneself where possible. Participants were also clear that time should be spent on the foremost priorities for each individual child and appeared for the most part, enabled to do this by the context of being in a special school and understanding the explicit need for person-centred practice. This led me to reflect on the purpose and experience of education for all children. Gibb (2015) outlined the purpose of education as threefold; economic, culture and preparation for adult life. The emphasis placed upon developing skills and readiness for the workforce, perhaps highlights a broad and pervasive preoccupation with providing education which aligns with capitalist values and lead by the need of the economy, as opposed to having a humanistic or holistic purpose, which fosters individual strengths, values difference and places an authentic emphasis on experiences and wellbeing.

12.2.4 – Implications at organisational and policy level

The challenge posed to teachers who have a cohort of learners with PMLD is often that the curriculum and typical model of mainstream pedagogy simply do not fit and

do not work to meet the needs of this population. Participants routinely referenced the challenges they experienced in relation to not only external stakeholders such as Ofsted, but also their own senior leaders in understanding the core basis of their work. Greater research into the awareness and responsibilities of statutory and non-statutory inspectors (including Ofsted, school improvement partners and within school professional assessment frameworks) would be supportive in understanding the degree to which current quality assurance practices are accurate, functional, and supportive of children, families, and schools. Further to this, examination of initial teacher training course content and availability of high quality and easily accessible additional modules of learning to teach those with PMLD have long been called for (Salt, 2010) and the findings of this research supports this.

Through travelling to conduct this research I was able to see the differences between geographical location and understand differences in provision based on location and local authority. Children and young people in the South East (closest to Greater London) appeared to have access to new purposefully designed building and classroom, children had access to shared and individualised technology and referenced availability of respite care, there also appeared to be an element of choice regarding school placement. Through coding, there appeared to be less acute preoccupation with adult services and more of a sense of choice around schools and services, participants also appeared to have higher expectations for services. In the South West, there was no reported element of choice for parent participants, as there would only be one school within a reasonable distance that could meet their child's needs. Some participants reported access to technology and equipment was possible. In contrast, participants in the North East did not describe

or demonstrate easy access to individualised technology and reported waiting a long time for technology to be sourced and implemented. There was more need for services to be outsourced and more description of a pressing need for investment in physical resources, inaccessibility of old buildings and 'making the best' of what was available.

There were differences around provision of nursing, occupational therapy and speech and language across all participating schools, with some having nurses provided by the NHS, on site, to manage medical needs. Other schools needed to depend on the ambulance service alone where children experienced increased medical vulnerability, which could provide additional challenges and stressors for staff. Only 1 school (within the South West) referenced active and regular educational psychology input within their school. Understanding and determining a minimum standard for community paediatric and nursing support, speech and language and occupational therapists, access to technology to support communication for children and young people with PMLD/complex medical needs could be supportive of ensuring uniformity, standardisation, and equitable access across all areas of England, from both a health and education perspective.

12.3. Evaluation

Shenton (2003) writes that Guba (1981) constructs of assessing the trustworthiness of qualitative research have been widely used. The four aspects put forward by Guba for assessment are credibility, dependability, transferability, and confirmability. I will discuss each of these in turn in relation to the project.

12.3.1 Credibility

Credibility is defined by Merriam (1998) as how congruent the findings are with reality. Creswell and Miller (2002) describe the process of disconfirming evidence as a process of creating preliminary themes and then looking for data that confirms or disconfirms these themes. The present study is exploratory in nature and due to a limited evidence base, I was aware and expectant that new themes would be created. Research questions emerged from the literature review, and the semi-structured interview schedules emerged from concept mapping which provided a basis for preliminary themes and categories. In familiarisation with the data and coding, new and unexpected themes did emerge which disconfirmed my initial assumptions. Further to the writings of Creswell and Miller (2002), Stake (1995) locates the process of validating data in triangulation. In the present study data has been triangulated through using more than one method with participating teachers, introducing the parent as another source of triangulation and investigator triangulation through the process of engaging with research supervision, which shapes view of the methodology and data generated. Transcripts were sent to the participants for checking, to ensure that they represented the discussion from the perspective of the participants.

12.3.2 Dependability

Refers to research being carried out in a manner that is consistent and demonstrates fidelity to the methodology, in a way that would allow for the study to be reproduced. This project has been carried out using a well-established case study method as prescribed by Stake (1995), with methods of data collection using established and

evidence-based approaches such as hierarchical focusing and video-stimulated reflection and analysis using method prescribed by Braun and Clarke (2022), see appendix four. A description of my interest and positionality is included and a reflective commentary. Limitations may lie with the small sample of participants and the self-selecting nature of the study. Three out of five parents had experience of working in an education setting which may be disproportionately representative.

Creswell and Miller (2000) describe how pro-longed engagement in the field allows for trust between participant and researcher to be built through repeated interpersonal contact. Whilst data was not longitudinally collected, I conducted all of the data collection face-to-face, travelling long distances to ensure that this interpersonal contact could be made. I spent at least the equivalent of one full day in each school, participants were able to show me around and engage in informal discussion. The process of providing transcripts for checking also allowed for protracted contact, and another opportunity for participants to add further information or comment if they wanted to.

12.3.3. Transferability

Whilst the sample is small, it consists of participants from across England. Their personal and professional experiences differ, and their geographical, local authority and school contexts are varied. Due to the relatively low incidence nature of PMLD, the professional group of teachers working with learners with PMLD is also inherently small. The cross-case analysis which looks to find commonality and difference in the data, is supportive of transferability. Creswell and Miller (2000)

highlight that providing rich and detailed descriptions about the case, settings and themes can increase credibility by ensure the reader has enough information to feel as though they have experienced or could situate themselves in the context described. The present study uses context setting, quotations and outlines how participants within the case relate to one another.

12.3.4 Confirmability

Confirmability refers to the extent to which the findings of the study could be confirmed by other researchers (Baxter & Eyles, 1997; Anney, 2014). Throughout the process of designing and carrying out research I have engaged in formal research supervision, informal peer supervision and kept a reflective diary in the form of written and audio notes, which have formed the reflective commentary throughout.

12.3.5 Ethical issues

There were several ethical issues, considerations and reflections which were identified across the course of engaging with this study. I became aware of the significance of not identifying as a disabled individual at the point of literature review, but more acutely so during interviews, particularly with parents. Through semi-structured interviews with parents, it became evident that there was a significant degree of perspective and experience to capture and present that would contribute to knowledge. The parameters of the current study limited the extent to which I could report upon the full spectrum of reflections, opinions and information presented by parents. Had parameters been broader, I would have valued the opportunity to

include full narrative accounts, which through listening I have found to be transformative in perspective and practice.

Gaining ethical approval from the university was also challenging, particularly in communicating to stakeholders involved in the ethics approval process the nature and parameters of including children and young people as co-participants, where they are not able to offer informed and active consent. Had time and resource parameters been broader, I would have liked to consider longitudinal ways to develop gaining consent and assent, and authentic participatory means for children and young people with PMLD to engage meaningfully, as direct participants. The lack of frameworks and confidence in best practice around ethically including individuals with the most complex needs, may work to exclude them from research, and subsequently, findings that could be used for the betterment of evidence-based provision, practice and policy (Simmons et al. 2022).

12.4 Limitations and Future Research

Limitations which I have noted in addition those noted above included the lack of opportunity for teachers to practice engaging with video-stimulated reflection. When utilising this as a research method in future I would set up more opportunities for practice observations followed by video-stimulated reflection to allow participants to have the experience of a cycle of engagement and move past the initial preoccupation and vulnerability of watching themselves on tape. The views and perspectives of school leadership would also be beneficial to understand and include in the boundary of future case studies, given the relevance uncovered in this present study, and increased scope at the point of design to include parent narratives. A

longitudinal and ethnographic approach to the practice of PMLD teachers in relation to professional knowledge on communication teaching and development may also be useful in producing instructional material.

12.5 Concluding statement

Whilst many of the communication approaches that are commonly used to learners with PMLD were referenced in the study, the findings highlight the importance of conceptualising development of communication in the context of individual capacity. Future research could focus on approaching broader educational matters for this group of learners through a systemic lens.

The experience of conceptualising, designing, and carrying out this study has afforded me the opportunity to examine and better understand the educational context for some of arguably the most vulnerable people in society. It has challenged my own perceptions and brought acute attention to the systemic implications for children and young people with PMLD and their families.

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Appendices

Appendix 1: Full table of search terms

		Number of results
		BEI ERIC ERC
Profound and Multiple Learning Disability OR PMLD AND	- No term -	118
	Education	43
	Communication intervention	1
	Intensive Interaction	5
	Objects of Reference	2
	Augmentative and Alternative Communication	3
	AAC	2
	Microswitches	36
	Switches	1
	Communication	21
	Continuing Professional Development	3
	Professional Development for teachers	2
	Professional Development	3
	Professional learning	2
	Professional knowledge	2
	Assessment or Assessment Tools or Assessment method or assessing	11
	Intervention	11
	Teachers	20
	Children OR Adolescents OR Youth OR Child OR Teenager	32
	Young People or Young Adults	9
Schools OR Classroom OR Provision	49	
Educational Psychology	8	
Profound AND intellectual AND Multiple disabilities AND PIMD	- No term -	1, 327
	Children OR Adolescents OR Youth OR Child OR Teenager	514
	Communication AND intervention	35
	Intensive interaction	12
	Objects of reference	1
	Augmentative alternative communication OR AAC	7
	Microswitches	9
	Switches	4

	Professional learning OR Professional Development or Professional knowledge	17
	Assessment or Assessment Tools or Assessment method or Assessing	278
	Educational Psychology	0
Effectiveness AND	Objects of Reference	24
	Microswitches OR Switch based intervention	24
	Intensive Interaction	34
	AAC OR Augmentative Alternative Communication AND PMLD	0
	Communication AND Intervention AND PMLD	1
Augmentative and Alternative Communication AND	- No term -	908
	Professional development	12
	Professional learning	3
	Professional knowledge	12
	Continuing professional development	1
	CPD	0
	Education	411
	Teachers	5
	Children	20
	Educational Psychology	76

Section of the protocol	Stage of the case study research	Rationale/Activity		
Overview	Multiple Case study overview	<ul style="list-style-type: none"> - Children and young people with PMLD have individual needs due to the complexity of their unique presentation. - Of the most commonly used communication intervention as described in the Routledge handbook, the evidence base for use with this group are poor. - Teachers get little to no specialist content during initial teacher training, often work in isolation and it can be difficult and expensive for schools to secure specific training around communication intervention for learners with PMLD. - The current research seeks to understand how teachers come to decisions around communication intervention, how they know it works and what further support is needed. 		
	Design	<ul style="list-style-type: none"> - A multiple case study - 5 case, 1 teacher per case - From maintained special schools in the United Kingdom. 		
	Case Selection	Selective sampling is used due to specificity of the case study focus.		
Data collection procedures	Data gathering	Phase	Data gathering method	
		Phase 1	Mapping case context	
		Phase 2	Interview with teacher	
		Phase 3	Observation and video stimulated reflection.	
		Phase 4	Interview with parents	
Data collection questions	Data analysis	Phase	Source	Method
		Phase 1	Recruitment questionnaire and school policies.	Description at face value.
		Phase 2	Interview transcript from interview with teacher.	Reflexive thematic analysis see appendix 6

		Phase 3	Transcript from reflection	Reflexive thematic analysis see appendix 4
		Phase 4	Interview transcript from interview with parent	Reflexive thematic analysis see appendix 4

Appendix 3 – Recruitment Questionnaire for Teachers

Introduction, I am a trainee educational psychologist at the University of Exeter conducting research into the professional knowledge of teachers who are currently teaching learners with PMLD.

Through carrying out multiple case studies, I'm hoping to capture and understand more about how teachers of learners with PMLD develop their professional knowledge which underpins their practice, with a particular focus on communication intervention.

Despite a primary focus for this group of learners being the development of communication skills, interventions frequently used to support learners with PMLD with the development of communication, have a poor effectiveness evidence base. Teachers of learners with PMLD have also previously expressed through research that their initial teacher training had little focus on teaching those with PMLD, continuous professional development opportunities for teaching PMLD learners can be difficult to secure, and a wider network of general peer support can also be challenging to source. I am hoping to explore and highlight the unique skillset that teachers of learners with PMLD develop and use.

Participation would include

- Being interviewed by the researcher. I'm hopeful that this will be a collaborative opportunity to share and reflect on your own professional journey and practice to date
- Helping to share information with the parents of some of your learners who might be interested in participating in an interview, and facilitating the researcher interviewing parents in school where necessary.
- Having up to 15 minutes of your practice observed in the classroom. It is important to note that this is in the capacity of inquiry, I will not be assessing or feeding back to your school on features or appraisal of your practice. Observations will be video recorded for the purpose of supporting you engage in reflective conversation.
- A reflective conversation/interview for approx 15 minutes on practice

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delivery.

- Participant's data will be held securely and anonymised, no individual identifiers will be included in the research write up.

I'm hoping to recruit a representative sample of teachers, from a broad range of professional experiences, however individuals must have Qualified Teacher Status (QTS) to participate. The following questionnaire is designed to capture initial differences in professional experiences and practice.

If you have any specific questions and would like to get in touch, please don't hesitate to contact me on rg454@exeter.ac.uk.

Still interested in participating?

- Yes
- No - Thank you for your initial interest, please feel free to exit the browser

Default Question Block

Do you have Qualified Teacher Status (QTS)?

- Yes
- No

How did you gain QTS i.e BEd, PGCE, Teach First

At which Univeristy/Instiuion did you complete teacher training?

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Do you currently teach at least one learner understood as having Profound and Multiple Learning Disabilities? (PMLD)

- No
- Yes

How many months/years of experience do you have TEACHING learners with PMLD?

Prior to TEACHING learners with PMLD, did you have other experience working with people with PMLD, either personal or working in a different capacity?

Which communication interventions do you use with your PMLD learners ?

- Intensive Interaction
- Switch Based Interventions
- Objects of Reference
- Symbols
- Communication Partners
- Other

Have you accessed any additional formal training in relation to your role teaching learners with PMLD? If yes, please tell me more about the nature of your additional training and the provider e.g. additional Modules of learning at University or day/short courses delivered by private providers.

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How many years experience teaching (any population) do you have?

If you're still interested in being invited to participate, please enter your email address. Details will be used to make contact regarding this research only and will not be passed on to third parties.

Powered by Qualtrics

Appendix 4 – Thematic Analysis Process as outlined by Braun and Clarke (2022)

Stage	Description	Steps Taken	Illustrative Examples
	Transcription of Data	<p>Transcriptions auto transcribed using software.</p> <p>Transcripts checked for accuracy.</p> <p>Transcripts sent to participants for checking and agreement</p>	<p>Interview transcript teachers</p> <p>Interview transcript parent</p> <p>Video Stimulated reflection transcript</p>
1	Familiarisation	<p>Production of facsimile after interview.</p> <p>Reading data several times.</p> <p>Rereading facsimile and my own original interpretation.</p>	<p>Writing of facsimile immediately post interview.</p> <p>Taking voice notes of ideas that I had when thinking about the data in spaces outside of the office, in the community and when doing other things.</p> <p>Sharing transcripts with participants and reviewing any further comments.</p> <p>Annotating transcripts and initial note taking.</p>
2	Coding	<p>Generating initial codes from the literature review, research questions and concept mapping undertaken as part of hierarchical focusing interview schedule.</p> <p>Generating new codes where new or unexpected detail were constructed through familiarisation and reading.</p> <p>Considering latent (participant driven) and semantic (researcher driven) codes related to the text.</p>	<p>Using NVivo.</p> <p>Setting up the initial codes. Reading through and adding to initial codes and generating sub codes relate to the concept map and semi structured interview prompts.</p> <p>Systematically reading and identifying other codes.</p>
3 (and 6)	Generating Initial Themes (writing up: note taking and annotating)	<p>Theme development.</p> <p>Identifying patterns and clustering codes together</p> <p>.</p>	<p>Concept map and semi structured interview support initial clustering, however some data has more than one code. Here I considered in more depth semantic meaning, reviewing written facsimiles to compare my understanding of meaning from the point of data collection and now, having being immersed in data.</p> <p>For example, intensive interaction is preferable, and</p>

			this emerges from concept map, but themes relating to need for connectedness and value-based decision making to emerges.
4 (and 6)	Developing and reviewing themes (writing up: note taking and annotating)		Making decisions around prioritising the most relevant aspects. Comparing emergent themes, combining where very similar.
5 (and 6)	Refining, defining, and naming themes (writing up, note taking, annotating, connecting with literature and synthesising in line with research questions)	Following a break (1 week), arriving back at the codes and data.	Development of themes that connect themes. Deciding which are most salient.
6	Writing up		Writing up individual case studies.

Appendix 5 – Ethics approval certificate



Research Ethics Committee Review Outcome Decision

Dear RACHEL GALLAGHER

Ethics Application ID: 525351

Title: The professional knowledge of teachers regarding development of communication in learners with PMLD (Version: 1.0)

Proposed Project Duration: 1 Jun 2023 - 21 Jul 2023

Your research study ethics application submitted above on 7 Feb 2023, 15:18 has been reviewed by the FHASS Social Sciences and International Studies Ethics Committee.

Outcome decision by Research Ethics committee: **Favourable Opinion**

Subject to the following conditions (*if applicable*):

Ethics Committee Comment:

Dear Rachel

Your study is now approved and from your start date, you are free to commence research. Please be aware that any significant changes to the study should be reviewed by proposing an amendment for review and receiving a favourable opinion prior to implementation.

If during the research process you encounter issues or events that significantly change the level of anticipated risks of the research, you should contact the Research Ethics Committee for advice. Please also remain aware of any UK government guidance or advice that might affect your research.

You can download a copy of your decision letter (including the reference number) from within Worktribe. Click the link below and scroll down to the 'Top Tip's section.
<https://universityofexeteruk.sharepoint.com/sites/SSISResearchEthicsCommittee/SitePages/Guide-to-using-Worktribe.aspx>

Feel free to get in touch if you have any queries. Best wishes for a successful study.

Regards

Mark Slater

Research Ethics Officer

PS: Please ***do not*** mark your application complete until you actually complete your research project.

Decision Date: 1 Jun 2023, 09:40*

Research Ethics Committee Approval End Date: 21 Jul 2023, 09:15

*You can only start your research once you have received a Favourable Opinion outcome decision. *The start date of your research will be no sooner than the Ethics Committee Approval decision date above.*

Appendix 6 – Recruitment Flyer

Are you currently teaching learners with
Profound and Multiple Learning Disabilities?

If so, you may be interested in partaking in research.



University
of Exeter



What is the research about?

I am exploring the professional knowledge of teachers, specifically in relation to the use of communication interventions. I am looking to better understand the professional knowledge, experiences and practice of teachers (with QTS) who are working with learners aged up to 19 years, understood as having Profound and Multiple Learning Disabilities (PMLD).

What would taking part involve?

Participation in a case study would involve;

- Completion of a brief recruitment questionnaire.
- Being interviewed for approx. 1 hour.
- Observation of practice for 15 minutes. This will be video recorded for shared review.
- Engaging with a reflective conversation with the researcher using video clips for stimulated recall of practice approx. 30 mins.

Interested?

Please see further information and register interest by following the link or QR code:



https://exeterssis.eu.qualtrics.com/jfe/form/SV_dnw5iPkYck2Q2ns

Alternatively, please don't hesitate to get in touch directly via email with questions or queries - rg454@exeter.ac.uk



Appendix 7 – Participant Information and Consent Forms



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Participant Information Sheet

(Parents and Carers)

Title of Project

Understanding professional knowledge of communication interventions for teachers of children and young people with Profound and Multiple Learning Disabilities (PMLD).

Researcher name: Rachel Gallagher

Invitation for Parents and Carers

You have been invited to consent for your child to take part in this study. This is because their teacher is taking part. Parents are also invited to participate in an interview, if they would like to. The study focuses on use of communication interventions with pupils who have PMLD. Examples of communication intervention include Objects of Reference, Intensive Interaction and Use of Switches.

This information sheet outlines the aims of the research. It also gives details about taking part. Please read through this sheet to help you decide whether you would consent to your child taking part. It may also help you decide if you would like to take part, as a parent.

Purpose of the Research?

I am a trainee educational psychologist. I have spent time reviewing past research and visiting special schools working with children with PMLD. I discovered that there is very little evidence available that helps us to understand how effective communication intervention is. It is difficult to tell from research, how communication interventions are used within schools by teachers for pupils with PMLD. It's not clear how teachers can learn and develop the skills they need to deliver communication intervention to this group of pupils. I hope that this study will increase understanding around how teachers use interventions to enhance outcomes for their pupils with PMLD. I also hope that the study will help us to understand the professional experiences of teachers and how educational psychologists can help.

What will happen if I consent for my child to take part?

I will observe your child's teacher delivering a communication intervention to your child. I will ask the teacher to do the teaching, as they would normally. I may observe on more than one occasion. I will ask your child's teacher to share their thinking with me as they work and I will take field notes and I will video record the intervention, to review with your child's teacher shortly after on the same day. The purpose of video recording is to support the teacher to think reflectively in more detail, about the intervention they did with your child. This video will then be deleted from the recording device before I leave the school and will not be retained or saved anywhere. You can consent for me to observe the teacher working with your child, as a very valuable aspect of this research. It is not essential for you to engage in an interview too. I will ask your child's teacher how your child usually indicates their agreement. If staff working with your child feel that your child is uncomfortable, is opting out or doesn't agree any aspect of the observation, I will stop immediately.

What will happen if I consent to take part myself?

I would like to interview some parents/carers of the children that I observe, I would like to gain their parent's view. I would like to know how parents feel about the progress of their child's communication and how parents view their own role in supporting development of communication. I would be interested to know how parents view communication intervention, as a result of their child's attendance at school. I would also like to know about the value of the home-school relationship. Interviews would happen in school. Interviews would last for around one hour and will be audio recorded.

Please get in touch to ask any questions. Please sign the enclosed consent form if you are willing to allow the observation of your child, and/or are willing to participate in an interview.

What might the benefits be of taking part for my child and I?

This research could add to the evidence-base. It could aid understanding of the professional experiences of teachers working with this group. It could highlight the needs of this professional group. It could also contribute to professional's confidence in using these interventions. It could enhance understanding of the interventions value. You may also feel that you benefit from time spent in a reflective space through taking part in an interview. Your child's teacher may benefit from being able to reflect in-action and on-action, on their practice with your child. Your child may also benefit from having an opportunity to demonstrate skills to a new adult.

What might be the disadvantages of taking part?

Parenting can be tough. Talking about challenges may bring up emotions, some of which may be difficult. Children with PMLD often have complex medical and additional care needs. This may be difficult to think and talk about too. You will be able to let the researcher know if taking part impacts on your wellbeing. This could be before, during or after. The researcher will be available for a chat afterwards and signposting to support, if needed.

What happens to the data collected?

Only the researcher and her supervisor will have access to the data. The data will be made anonymous and stored securely. Data will be kept until 24/8/2024. Field notes will be anonymous at the time of recording and will not contain identifiable information regarding your child, however, your child's responses to the teaching may be noted. Field notes will be scanned to the University's secure share point system and paper notes destroyed within 24 hours. Audio recorded interviews with parents will be saved on the University's secure Sharepoint system. The interview audio recordings be deleted once they have been typed up into a transcript. You will be asked to check the transcript and given two weeks to respond. Following this 14 day period, if you have not responded to confirm that you are in agreement with the accuracy of the transcript, the researcher will assume you are in agreement with the content. All electronically stored data will be pseudo-anonymised and personal data including contact details, will be kept on the secure Sharepoint system, and deleted when the project is finished.

The video recordings collected as part of the observation of your child engaging in the communication intervention with their teacher will be completely deleted from the recording device on the same day, before the researcher leaves the school building. Videos will not be retained, kept or processed by the researcher and do not form part of the data set.

How is confidentiality maintained?

To keep information confidential, codes will be used and names will be changed, instead of school or real names. Locations will be confined to larger areas such 'South West' or 'West Midlands'. Information you share in interviews will remain confidential (in line with the school's safeguarding procedures). Any direct quotes or identifiable data used will be anonymised so that it cannot be linked to you.

What happens if I do not want to take part or if I change my mind?

You do not have to take part. If you decide to take part in an interview but then wish to withdraw, you can do so by notifying the researcher or research supervisors, up until the data is completely anonymised. You do not need to give a reason and your data will be destroyed. You will be asked to check the interview transcript and given two weeks to respond. Following this 14-day period, if you have not responded to confirm that you are in agreement with the accuracy of the transcript, I will assume you are in agreement with the content, and the content will fully anonymised. Once the data is completely anonymised, I will not be able to identify which data belongs to you in order to remove it. Your participation, non-participation or withdrawal after participation will not have any negative effect. It will not impact on the service you would normally receive from the educational psychology service or from the University of Exeter.

What happens after the research?

After the research is completed, I will send a summary of what I have found via school. Access to the full thesis can be given if requested, once the thesis is finished. Findings of the study may be included in academic journals, at conferences or cited in future research or publications.

Will I receive payment for taking part?

No payment is offered for taking part.

Criminal Records Check

The researcher has undergone an enhanced criminal records check.

Who has reviewed this study?

This project has been reviewed by the Researcher Supervisors and Research Ethics Committee at the University of Exeter (Reference Number)

Contact for further information

If you have any questions about this research please get in touch. The researcher and supervisor of the project can be contacted at any stage.

Researcher: Rachel Gallagher

Email: RG454@exeter.ac.uk

To contact the research supervisors, please email

Brahm Norwich

Email: B.norwich@exeter.ac.uk

Margie Tunbridge

Email: M.Tunbridge@exeter.ac.uk

To contact the Faculty of Humanities and Social Sciences Research Ethics Committee please email fhass-ethics@exeter.ac.uk

You can also contact the University Research Ethics and Governance Team please email cgr-reg@exeter.ac.uk,

Thank you for your interest in this project.



University
of Exeter

Participant Identification Number:

CONSENT FORM (Parent)

Title of Project: Understanding the professional knowledge of teachers regarding the use of communication interventions for children and young people with Profound and Multiple Learning Disabilities.

Name of Researcher: Rachel Gallagher

Please initial box

1. I confirm that I have read the information sheet for the above project.
I have had the opportunity to consider the information, ask questions if necessary and have had these answered satisfactorily.

2. I understand that relevant sections of the data collected during the study may be looked at by members of the research team, where it is relevant to my taking part in research.
I give permission for these individuals to have access to my records.

3. I understand that my child will be taught as part of the research, within school, as they typically would be on any given day. This teachers practice will be observed by the researcher and video recorded. The video will be used to support the teacher in a reflective conversation about their practice on the same day. The video will then be completely deleted on the same day, and will not be kept or stored by the researcher.

4. I understand that the researcher may take field notes whilst observing my child's teacher, teach my child. Whilst no personal data relating to my child will be collected, my child's responses to the teaching may be recorded and may go on to form part of the data.

5. *Optional* - I also consent to being interviewed in my capacity as parent/carer, and I agree to being contacted (via the contact details provided here) to arrange an interview with the researcher.

Your contact number.....

Your contact email

6. I understand that participation is voluntary and that I am free to withdraw at anytime between now and up to 2 weeks after I receive a transcript of the interview, without giving any reason and without my legal rights being affected.

7. I understand that the study which uses by data may go on to be published in academic journals, at conferences, or cited in other publications. Data will remain anonymous

8. I agree for my child to take part in the elements of the research project as indicated above.

9. I agree to take part in the research.

Name of Participant Date Signature

Name of researcher Date Signature
taking consent



University
of Exeter

Participant Information Sheet

(Teachers)

Title of Project

Understanding professional knowledge of communication interventions. For teachers of children and young people with Profound and Multiple Learning Disabilities (PMLD).

Researcher name: Rachel Gallagher

Invitation for Teachers

Qualified teachers who use communication interventions with pupils with Profound and Multiple Learning Difficulties (PMLD) are invited to take part. The research will be carried out by a trainee educational psychologist. This information sheet outlines the aims of the research. It also provides details about participation. Please read through this information to help you decide whether you would like to be involved.

Purpose of the Research

Through literature review, I discovered there is very little research about the effectiveness of the most commonly used communication interventions for learners with PMLD. These interventions include Objects of Reference, Intensive Interaction and Switches. I hope that this study will increase understanding of how teachers use interventions to develop communication skills. I also hope that the study will increase understanding of the professional knowledge and experiences of teachers. It may also contribute to understanding how educational psychologists can help.

What will happen if I take part?

I would interview you about your use of communication interventions, your professional experiences and the origins of your professional knowledge. The interviews will be audio recorded and will take around one hour.

I would also observe you delivering communication interventions in practice for around 15 minutes, this can be with more than one pupil with consent. I may ask you to comment on aspects of your practice, and to share your thinking as you go. I will ask to video record your teaching. Shortly after, on the same day, I will invite you to engage in a brief reflection with me (around 30 minutes). We will use the video for 'stimulated reflection' so that you can comment further on your thoughts, actions and decision making in a protected and reflective space. Videos will be deleted before I leave the school, and will not be retained, stored or processed.

I would interview parents of your pupils. I would like to gain their view on aspects such as the development of their child's communication and how they view their role in developing communication skills with their child. Also, the way they view communication intervention as a result of their child's attendance at school and the value of the home-school relationship. I will ask for your help sharing recruitment information with parents of children in your class and collecting consent.

Please do get in touch to ask any questions regarding the research, please sign the enclosed consent form if you are willing to take part.

What might the benefits be of taking part?

This research may contribute to the evidence base in different ways. It may help us to understand the professional experiences of teachers working with this group of learners. It could highlight the needs of this professional group. It could enhance understanding of the value of interventions for learners

with PMLD. You may also feel benefit from time spent in a reflective space, through engagement with interview and observation.

What might be the disadvantages of taking part?

Teaching can be a challenging role. Reflecting on current or previous challenges may illicit emotional responses. Some of these responses may be difficult. The researcher is also aware that children with PMLD often have complex medical needs. Sometimes, learners with PMLD may have short lives. As a result, such reflections may also bring up feelings of loss. You will be invited to let the researcher know if any aspect of participation impacts on your emotional wellbeing. This could be before, during or after participation. The researcher will be available for debrief and signposting to sources of support.

What happens to the data collected?

Only the researcher and supervisor will have access to the data created through the study. The data will be securely stored until 24/8/2024. Field notes will not include identifiers such as names or places at the point of recording. Field notes will be link anonymised to the case, scanned to the University's secure share point system and paper notes destroyed within 24 hours. Recorded interviews will be saved on secure Sharepoint. Recordings will be deleted upon creation of a transcript. The interview audio recordings be deleted once they have been typed up into a transcript. You will be asked to check the transcript and given two weeks to respond, at which point the researcher will assume you are in agreement with the content. Following this 14 day period, if you have not responded to confirm that you are in agreement with the accuracy of the transcript, the researcher will assume you are in agreement with the content. All electronically stored data will be pseudo-anonymised until full anonymisation can take place. Personal data, including contact details, will be kept on the secure Sharepoint system. Personal data will be destroyed upon completion of the study.

Video clips created as part of the observation will be completely deleted from the recording device before I leave the school building on the same day and will not be retained, stored or processed as part of the data. The only function of the video is to provide you with cues to reflect on details on the intervention/teaching after it has finished.

How is confidentiality maintained?

Codes will be used instead of school or participant names. This is to keep information confidential. Location will be confined to larger geographical areas, such 'South West' or 'West Midlands'. Information shared in interviews will remain confidential (in line with the school's safeguarding procedures). Any direct quotes used will be anonymised.

What happens if I do not want to take part or if I change my mind?

You do not have to take part. If you decide to participate, but then wish to withdraw from the research, you can do so by notifying the researcher or research supervisors. You do not need to give a reason. Your data will be destroyed. Once audio recordings of interviews have been transcribed, will be asked to check the interview transcripts and given two weeks to respond. Following this 14 day period, if you have not responded to confirm that you are in agreement with the accuracy of the transcript, I will assume you are in agreement with the content and will fully anonymise your data. Once the data is completely anonymised, I will not be able to identify which data belongs to you in order to remove it. Your participation or non-participation will not have any effect on the service you would normally receive from the educational psychology service or from the University of Exeter.

What happens after the research?

Once the research is completed, I will write to you with a summary of my findings. Access to the full thesis can be given if requested. Findings of the study may be included in academic journals, at conferences or cited in future research or publications.

Will I receive payment for taking part?

No payment is offered for taking part in this study.

Criminal Records Check

The researcher has a satisfactory criminal records check. Letters of assurance, or a copy of the DBS can be seen. Photo ID is also available.

Who has reviewed this study?

This project has been reviewed by the Researcher Supervisors and Research Ethics Committee at the University of Exeter (Reference Number...)

Contact for further information

If you have any questions about this research, the researcher and supervisor of the project can be contacted. You can contact the researcher or supervisor at any point, if you require assistance. This could be during or after the research.

Researcher: Rachel Gallagher

Email: RG454@exeter.ac.uk

To contact the research supervisors, please email

Brahm Norwich

Email: B.norwich@exeter.ac.uk

Margie Tunbridge

Email: M.Tunbridge@exeter.ac.uk

To contact the Faculty of Humanities and Social Sciences Research Ethics Committee please email fhass-ethics@exeter.ac.uk

You can also contact the University Research Ethics and Governance Team please email cgr-reg@exeter.ac.uk,

Thank you for your interest in this project



Participant Identification Number:

CONSENT FORM (Teacher)

Title of Project: Understanding the professional knowledge of teachers regarding the use of communication interventions for children and young people with Profound and Multiple Learning Disabilities.

Name of Researcher: Rachel Gallagher

Please initial box

1. I confirm that I have read the information sheet for the above project.
I have had the opportunity to consider the information, ask questions if necessary and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time between now and upto 2 weeks following receipt of the interview transcripts, without giving any reason and without my legal rights being affected.
3. I understand that relevant sections of the data collected during the study, may be looked at by members of the research team, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.
4. I understand that participation involves engaging with an interview for approx. 1 hour, which will be audio recorded and a transcript will be generated by the researcher.
5. I understand that participation involves an observation (up to 15 minutes long) of my practice. this practice will be video recorded to support me in a reflective conversation/interview. The video will be deleted on the same day, before the researcher leaves school and will not form part of the data set.
6. I understand that participation involves a video stimulated reflective conversation/interview approx. 30 minutes. This will be audio recorded and a transcript generated by the researcher.
7. I understand that participation will involve supporting the researcher to disseminate information about the study to, and gain the consent of parents.
8. I understand that the study which uses by data may go on to be published in academic journals, at conferences, or cited in other publications. Data will remain anonymous.

9. I agree to take part in the above project.



Name of Participant Date Signature

Name of researcher
taking consent Date Signature

Appendix 8 – Reflections related to the current topic over time

A timeline of reflection related to the current topic	
Time	
Undergraduate study	Positivist and quantitative approaches are the only valid research methods. There are universal truths based on empirical experiences. There are problems with lab-based research. I have a curiosity about field-based research but little engagement with research methodology. A separate interest in philosophical ideas such as the mind-body problem.
Post Graduate Certificates	Through engaging with learning and practice around Low-Intensity CBT, I was introduced to NICE Guidelines and the importance of NICE Guidelines, the Improving Access to Psychological Therapies care model.
Low-intensity CBT practice	I was regularly formulating that the experiences of anxiety and low mood was 'a natural consequence' of neurodiversity or learning difficulty/disabled individuals as they struggled to access their educational, social and family lives. I did not see systemic elements as movable or changeable and the problem was usually conceptualised within child. Despite having some understanding of the child in their context, I was not aware of how to foster systemic change, nor would I have had the confidence to challenge ableism within the NHS service under its own capacity and financial challenges.
Year 1 experiences	First visits to special schools and classrooms where PMLD children and young people are being taught.
Year 1 teaching	In-depth introduction to bioecological systems model. The link between philosophy and research is made. Introduction to the social model of disability.
Year 1 peer discussion	I had peer discussions with a researcher who had been involved with IAPT studies, the researcher explained the economic drive and the ethical problems around IAPT.
Year 1/2 literature review	Lack of research pertaining to education for learners with PMLD. I could only really find small scale descriptive studies. Very few effectiveness studies for approaches used for learners with PMLD such as objects of reference.
Year 2 – study design	I am activated by the topic of developing communication for learners with PMLD in an education context, however I do not have a disability identity of my own. I am concerned with and challenging myself around the concept of 'saviourism'
Year 3 – ethics application	Repeated referral of ethic application citing a need to gain informed consent from children and young people with PMLD, despite explanations of the challenges of this. Reading around ethical research for individuals with disability and consideration of what would make research ethical and balancing the need to gain consent with excluding people with PMLD from research and discourse.
Year 3 – first interviews	It is very obvious from the first and second interviews that the importance of an effectiveness evidence base around communication approaches isn't as salient as I had expected, because progress in the way that mainstream education conceptualises progress is not the same in this context. Little about the description, practice or reflections are concrete of practice in PMLD spaces is linear or speak to positivist principles which have pervaded my understanding of what makes education and teaching valuable or valid. Through this reflection, I can also begin to connect with ableism in previous practice, which transcended policy, systems and the discourse between myself and peers. I am increasingly shocked by the depth and solidified nature of my own ableist views. I have concluded that the constant message from teachers and parents that 'outsiders just don't get it' is based on the deep-rooted ableism of society that pervades practice, decision making, policy, research, and discourse. I feel participants

	have been able to see with absolute clarity something that I have not. This is an incredibly difficult realisation, and I am blindsided.
Year 3- Revisiting literature	There appears to have been a very small but tangible shift with a few more published studies since I began this project, but also with the kind of research that I now perceive as valid and meaningful, as I have gone through the process of understanding why positivist approaches, and language of mainstream is not relevant or appropriate. It remains that the literature pertaining to education of learners with PMLD is scarce.
Year 3 – analysis	Reflective commentaries throughout support my thinking and increase transparency, allowing for criticality of the reader.
Summary	<p>There were fundamental difficulties with my initial conceptualisation of what valid research into this area could look like. Thankfully, my own epistemological and ontological positioning leant itself to a research design that could be flexible.</p> <p>I can see differences in the language that I use in discussion and writing. I am able to think much further out the box and am hopeful that from a practice perceptive, my statutory advices can be authentically meaningful for children with SLD/PMLD from the beginning. I feel more confident in identifying and addressing issues of inequality. I am more conscious of the fact that I am biased in my positionality and am 'on the look out' for evidence of this in my own thoughts, feelings and behaviours.</p>
Looking forward	If I had the opportunity to complete a piece of focused research again, I would focus more broadly on the provision of education for learners with PMLD using a bioecological systems framework, including members of the senior leadership team. I would consider using ethnography to gather more longitudinal field data, and focus more explicitly on values. I would include more indepth parent narrative.

Appendix 9 – Semi-structured hierarchical interview schedule for teachers

1)What Does the Phrase communication intervention mean to you?									
	What does a communication intervention look like to you?								
		What do you do instead of communication intervention to develop communication?							
2)What do you view as the purpose of communication intervention with your pupils?									
	What are the priorities you have for the life outcomes of your pupils or their time in school?	What do you feel your pupils need to be able to do when they leave education?							
3)Which communication intervention approaches do you use with your pupils?									
	<table border="1" data-bbox="477 1431 788 1644"> <tr><td>Intensive interaction</td></tr> <tr><td>Objects of Reference</td></tr> <tr><td>Switches</td></tr> <tr><td>Symbols</td></tr> <tr><td>Blended</td></tr> <tr><td>Other</td></tr> </table>	Intensive interaction	Objects of Reference	Switches	Symbols	Blended	Other	How did you come to learn to use these interventions?	
Intensive interaction									
Objects of Reference									
Switches									
Symbols									
Blended									
Other									
			What successes have you had using this intervention in particular?						

			What challenges arise in conjunction with this intervention?
4)How do you come to decide which approach to use with your pupils?			
	How does resource influence the decisions you make about which interventions to use?		
	How do you use your professional knowledge to reach decisions about which approach to use?		
	How do you use the opinions of other professionals to reach decisions about which approaches are used?		
		How do you used the child's EHCP to inform your practice?	
			What are the 'communication and interaction' outcomes for child X.
		Which professional groups are most central to your practice in this area?	
			How do educational psychologists support your practice?
			How do you use educational psychology time? How do you see the role or educational psychology in relation to your work?

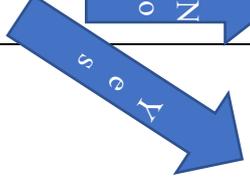


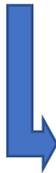
			What do you feel the role of educational psychologists is
	How do you use person centred knowledge, or information about individual pupils or groups of pupils to reach decisions about which approach to use?		
		How are parents and carers involved in decision making around communication intervention?	
5)How did you learn to implement the interventions that you use?			
	Did you gain knowledge from your initial teacher training?		
		Which activities or experiences in particular?	
	Did you gain knowledge from you NQT Experiences		
		Which activities or experiences in particular?	
	Did you gain knowledge from previous professional experiences before becoming a teacher		
		Which activities or experiences in particular?	
	Did you gain knowledge from previous personal life experiences		
		Which activities or experiences in particular?	

	Have you gained knowledge from within school training/inset?		
		Which activities or experiences in particular?	
	Have you gained knowledge from externally sourced training?		
		Which activities or experiences in particular?	
	Have you gained knowledge from involvement with professional Networks and Peer groups?		
	Have you gained knowledge from engaging in self-directed learning such as reading or reflective practices		
6) What are the successes and challenges you've had in using communication interventions with your pupils?			
	How do you know communication intervention is effective?		
		What has made communication intervention effective for your pupils?	
		How do you know when to change or move on from an intervention?	
	What can get in the way of you implementing effective communication intervention?		

		What do you feel you need more or less of to enable you to carry out communication intervention effectively?	
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Appendix 11 - Semi-structured hierarchical interview schedule for parents

<p>1)What do you think is most important for your child to take away from or gain from their time at school?</p>			
<p>2)What Does the phrase communication intervention mean to you?</p>			
	<p>What would you expect a communication intervention to look like for your child?</p>	<p>Are you aware of communication interventions that are carried out with your child in school?</p>	
			<p>Are you aware of communication interventions that could be used with your child, but currently aren't being used?</p>
<p>3)How do you view your role in development of your child's communication skills specifically?</p>			
	<p>Do you carry out any communication interventions with your child?</p>  	<p>What do you do instead of communication intervention to help develop communication skills?</p>	
		<p>How did you learn to carry out communication interventions with your child?</p>	

		How does the way in which you work to develop your child's communication at home relate to the way school work with your child?	
4) How do you work with school to share information, skills, knowledge and experience to support development of communication?			
	Have you been involved in decision making about which communication intervention is used with your child?		
		How were you involved in making this decision	
			What do you think would help you to have more of an active role in decision making pertaining to the direction/meaning/ways of working?
			How do you think decisions were reached about which communication interventions used with your child?
5) Have the communication interventions used with your child changed over time?			
	Has your child previously had different communication		

	interventions that they no longer access? What were they?		
		Which factors do you think have underpinned decisions to continue or change with your child's communication intervention?	
		Would you like to see your child worked with in different ways or ways of working changed more frequently?	
			What would you like to see more or less of?