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INCLUSION AND AUTISM IN PRIMARY EDUCATION - AN EXPLORATORY INTERVENTION ON THE PREPARATION OF BEGINNER TEACHERS IN ENGLAND

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Abstract

This exploratory intervention in the preparation of beginner teachers in England examines the effectiveness of a bespoke, ten-week training intervention that combined theoretical understanding of autism with hands-on practical experience in a special resource provision (SRP) for autism. The action research study also explores the perceptions of autism and attitudes towards autistic pupils of beginner teachers in two mainstream primary schools in England. This study focuses on how beginner teachers might be better equipped for inclusive practice. This research uses semi-structured interviews to collect data and takes an exploratory and inductive approach. The research design employs the social constructivist philosophy pioneered by Vygotsky (1978) and is rooted in collaboration and interaction, where knowledge is constructed between the parties involved. The data is interpreted through the lens of constructivist grounded theory (Charmaz, 2006).

The training intervention involves eight beginner teachers, engaged in action research over ten weeks, working collaboratively, in pairs and small groups, during dedicated learning times. A reflection pause after the first five weeks of theory training allows for adjustments based on data collected, followed by a further five weeks of hands-on practical opportunity to work with expert colleagues in an SRP for autism, creating shared knowledge on the inclusion of autistic pupils in mainstream classrooms.

The study finds that a variety of factors, misconceptions and training shortfalls influence beginner teachers' perceptions and attitudes towards autistic pupils. It demonstrates teachers' low confidence in their ability to include autistic pupils in their mainstream classrooms when they start out in their careers. The study shows that participants in the study valued the dedicated time and space they had during the intervention to collaborate with peers in learning about autism, and they are seen to gain insights about autistic pupils that influence their attitudes, build their confidence and improve their inclusive practice.

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Chapter 1: Introduction to the study

1.1 An orientation to this research

The purpose of this exploratory intervention in the preparation of beginner teachers in England is to examine the perceptions of autism and attitudes towards autistic pupils of beginner teachers in two mainstream primary schools in England. This study focuses on how beginner teachers might be better equipped for inclusive practice. This study examines the effectiveness of a bespoke, ten-week training intervention that combined theoretical understanding of autism with hands-on practical experience in a special resource provision (SRP) for autism. In an educational landscape where there are increasing concerns about new teachers' readiness to practice, literature shows that teachers' attitudes and perceptions can exert a powerful influence on their ability to include pupils with special educational needs. Malinen *et al*. (2012) found that practitioners with more experience in teaching children with disabilities had more positive attitudes towards inclusive education.

There was a correlation between teacher experience and successful inclusive practice. Motivating factors leading to this research include the work of Tryggvason (2011), who found that in Finland, it is recognised that student teachers struggle to combine theory with practice and that comprehensive training of teachers in this area is considered essential. This study, therefore, seeks to underline the importance of exploring how beginner teachers can be trained to improve their professional competence and be better equipped for inclusive teaching earlier in their careers. The movement towards teaching all pupils in mainstream schools has many advantages as well as challenges, including ensuring that beginner teachers are fully prepared to teach across widely diverging learning styles and capabilities. McNamara, Murray and Jones (2014) suggest that the first year in teaching is a critical stage of professional learning, where practitioners undergo marked transformation and skill development. Moreover, during this period, beginner teachers are not only still learning how to teach but are also in the process of forming a professional identity. This study recognises these issues as a critical reality that must be considered by those tasked with teacher training.

This thesis explores, first, how beginner teachers perceive their readiness to include autistic pupils and second, how equipped they are to do so at entry to the profession. The research enquires whether theory and background knowledge of autism, when combined with hands-on practical experience in an SRP, can accelerate the acquisition of skills and confidence to include children with autism in mainstream classrooms. It suggests that the training intervention devised for this action research project could support the future induction and preparation of beginner teachers. This study contributes to knowledge in the field by creating a new understanding of how schools and institutions can better prepare beginner teachers to include pupils with autism in mainstream education.

1.2 Locating the researcher

This researcher's background, as a teacher for more than twenty-five years, an executive headteacher of two schools for more than thirteen years, and a leader of a mainstream school with an SRP for autism, from which the interest in this research stems, is contextually important. For many years, in countries across the globe, the quality of teachers and how equipped teachers are to teach, has been one of the most frequently cited factors explaining the quality of an education system (Malinen *et al*., 2012). Increasingly, questions have been raised about how equipped beginner teachers are to face 21st century challenges. Before embarking on this study, there were growing concerns raised by teachers across the two participating schools regarding the behaviours of autistic pupils and struggles with including them in class. The Local Authority invited schools to volunteer to set up provisions for autism on their mainstream sites, so a plan was presented to the school governors and community about opening an SRP for autism.

Whilst the governors welcomed the plan, there was muffled opposition from some aspects of the wider school community, including teachers. Despite this, there was a determination to work with the school community to highlight the benefits of a space that could benefit autistic pupils, some of the most vulnerable in our community. At the time, there was a growing number of autistic pupils at the school, and this proved to be a way to formalise and provide a dedicated space that was more suited to their needs, alongside their neurotypical peers. The

application was successful, with higher-than-expected levels of support from the community and the doctoral study began later the same year.

The researcher had worked as a National Leader of Education, designated by the Department for Education (DfE) for over ten years, supporting schools across the country and had been an Ofsted Inspector for many years. This experience provided certain privileged insights into the struggles of colleagues attempting to accommodate the needs of autistic pupils, albeit from a leader's viewpoint. It also created a unique position within the community from which to hear the growing concerns of teachers exiting the profession, overwhelmed by the challenges associated with autistic behaviour and managing inclusion. There was a clear need to fully understand the challenges from the teachers' perspectives, to consider the concerns expressed, and investigate how best to support teachers to include the growing numbers of autistic pupils placed in their mainstream classrooms.

The literature on equipping teachers for inclusive practice and preparing teachers to support autistic pupils was growing rapidly, but there were very few specific examples of studies that related to pupils with autism in mainstream primary schools with SRPs for autism. This study aimed to elicit an in-depth understanding of how beginner teachers perceive autism and the concept of inclusion by considering their perspectives on what would better equip them for inclusive practice. This made the views and insights of the initial advisory group, made up of teachers from across the school, crucial before commencing the study. A belief in social constructivism anchors the research approach and grounds it firmly in the data. Exploring literature on the key concepts of autism, inclusion and teacher education helps to understand what is known already, enable identification of the gaps in existing studies and build upon their findings.

1.3 Purpose of the study

The overarching aim of the study is to explore how well-equipped a cohort of beginner teachers were for inclusive practice across two mainstream primary schools in England. This research aims to contribute new insight to professionals in the field of education and provide a framework for how beginner teachers can be prepared to include autism spectrum pupils. The bespoke, ten-week action research training intervention, aimed to maximise the preparedness of beginner

teachers to include autistic pupils. This was to be achieved by combining theoretical knowledge with practical, hands-on experience, learning from experts in an SRP in a mainstream school. The findings of this study add to the national understanding of beginner teachers during their first year of teaching through the dimension of their perspectives on their preparation for classroom management. In addition, it is hoped that the findings provide new information for equipping beginner teachers for inclusive practice and contribute to improvements in their perceptions of autism.

1.3.1 The research questions for this thesis

1. What are the perceptions and attitudes of beginner teachers about being equipped to include autistic pupils in their mainstream classrooms?
2. How effectively will a ten-week training intervention that combines the theoretical understanding of autism with established best practice in a special resource provision prepare beginner teachers to include autism spectrum pupils?

1.3.2 The limitations of the research

This study was relatively small-scale, having just eight participants, meaning it relied on very localised experience (Stringer, 2014), knowledge and understanding of the problems surrounding beginner teachers' preparedness. The practical, hands-on experience phase of the training intervention was conducted in an SRP for autism but may have had different outcomes if participants had attended a special school for this part of their training. The participants were aware of the researcher as sympathiser to the issues they were experiencing, which might have had some bearing on their experiences and perspectives. As the study was limited to the exploration of only beginner teachers' views, those of other teachers were not considered. The age of the participants meant that the demographic of the teaching group represented was narrow. The age range shows most participants to be between 21 and 27 years; only two were over 35 and all were under 50. The ratio of men to women in the study could also be perceived as a limitation as only one male and seven female beginner teachers participated. Though, in mitigation, the figure is representative of the ratio of men in primary teaching workforce.

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1.4 The conceptual framework

This thesis aligns itself with literature on beginner teachers' perceptions of autism and attitudes towards autistic pupils. It seeks to build on studies linked to how beginner teachers can be equipped for inclusive practice. The literature review goes on to focus on, school induction and Continuing Professional Development (CPD), to understand how teachers are prepared for inclusive practice and to develop understanding of autism. The key components of the study, understanding autism in schools in England and equipping beginner teachers for inclusive practice, are considered in greater detail in the next two chapters. In the last twenty years, there has been increasing interest in improving inclusion practice by changing attitudes to autism and autistic pupils. Research into teacher training on strategies for managing autistic behaviours has focussed on helping teachers to better understand the condition.

Understanding what is already known about autism and autistic pupils in the existing body of literature, and how these contribute to beginner teachers' perceptions of autism and attitudes towards autistic pupils is the central focus of this study. Goodall's (2018) study, of 12 autistic students in Northern Ireland, suggests that teacher education relating to autism must be improved to facilitate changes in teacher perceptions and attitudes. It recommends that recognising autistic students as people and adapting pedagogical approaches to meet the needs of students are essential. These are also significant factors that shape the experience of autistic pupils in a study by Larcombe *et al*. (2019), who posit that providing teachers with the tools and strategies they need to include autistic pupils in lessons plays a role in how they perceive the pupils. Behaviours of autistic pupils and the challenge they present for teachers in general, and beginner teachers in particular, has been discussed extensively in studies. Wood (2019) says that teachers' negative perceptions of autistic behaviours result from a lack of understanding of how autism is manifested. She suggests that simply understanding autistic pupils better could help, rather than hinder, autistic pupils' ability to cope with everyday life in mainstream environments.

In 2016 and 2017, the Department for Education (DfE) commissioned annual surveys of beginner teachers – then known as newly qualified teachers (NQTs) − aimed at understanding and monitoring their views on the quality of their Initial Teacher Education (ITE) and their induction into teaching, to help shape

government policy. It found that supporting the inclusion of Special Educational Needs (SEN) pupils had the lowest confidence among Newly Qualified Teachers (NQTs), at 40 per cent, compared with other areas surveyed.

The attitudes of teachers towards inclusion as a focus of research gained momentum as the number of parents seeking school places for their autistic children in mainstream classrooms increased. Sanz-Cervera *at al.* (2017) used questionnaires to survey 866 pre-service teachers to test their preparedness and found that those with four, or more years' experience had more positive attitudes towards including autistic pupils than those with one year, or less, experience. But when the beginner teachers received specific training on autism, their perception shifted, due to fewer knowledge gaps and misconceptions. Sanz-Cervera *et al*. (2017) also found that understanding autism will assist in equipping teachers with strategies to improve their ability to support autistic pupils. In agreement with this, the findings of this study indicate that it is key for beginner teachers of autistic pupils to understand autism.

Perceptions can lead to underestimation of autistic pupils' ability to perform certain academic tasks because the pupils' strengths are not considered. Accardo *et al*. (2017) investigated the reading comprehension of autistic learners and found that their teachers' poor perceptions of their own ability to carry out their duties meant they did not feel equipped to help their autistic pupils, which directly hindered their approach to those students. Similarly, Anglim *et al*. (2018) found, through semi-structured interviews, that teachers lacked confidence in teaching autistic pupils. Thus, the two studies both showed that there was a lack of preparedness and belief in ability to work with the children. Not understanding autism has other implications. Ravet (2015) asserted that the baffling complexity of the condition leads directly to stress and anxiety problems among teachers, and this study concurred, as participants recalled struggling with the concept of autism as soon as they joined the profession and linked their anxiety to the challenge of grasping its complexities.

Whilst any clear definition of inclusion may be lacking from literature, it is a widely held view that beginner teachers need training in the implementation of strategies for inclusion. Rouse (2017) blamed the lack of a universally agreed definition of inclusion for its conceptual inaccessibility. The indication is that beginner teachers do not know what inclusion means in practice and what it should look

like in class. Understanding what inclusion means is fundamental to including autistic pupils in mainstream schools. Chamberlain *et al.* (2017) found teachers to be sceptical about the possibility of providing autistic pupils with inclusive support, and the Special Educational Needs and Disabilities (SEND) Code of Practice in England (2015) makes clear reference to schools removing barriers to give pupils access to the full curriculum. In addition, Rouse (2017) claims that inclusive practice is hard to implement because teachers do not feel sufficiently equipped. This implies that inclusion practices can be challenging to implement.

From a growing body of literature on inclusion, seeking the views of teachers about autism and autistic pupils in mainstream schools has accelerated alongside the drive to enable parents of autistic pupils, and those with other special educational needs, to have a choice to send their children to mainstream schools in line with the Education Act of 1981 and the SEND Code of Practice that was first published in 2001 and updated in 2015. This makes the concept of inclusion central to this study, and justifies why understanding how beginner teachers perceive their preparedness for inclusive practice is relevant to this research. Reviewing research on student teacher attitudes to inclusion and SEN, Garmon (2005) suggests that it is important to start by exploring trainees' pre-dispositions as a key to developing positive attitudes. Garmon (2005) laments the slow progress towards embedding SEN support for teachers in their training and recognises the significance of induction years; while also acknowledging that it is important for teachers to be equipped so that a lack of clarity and understanding of inclusion does not impede their practice. D'Agostino *et al.* (2020) assert that environments and dedicated sites for providing teachers with the training they need for working with autistic children are important because attitudes towards autistic pupils are shaped by perceptions of autism, and training the teachers in inclusive environments will support understanding.

The importance of placements and work experience was highlighted in a study by Hoon *et al.* (2020) who found that when trainee teachers experience working with autistic pupils ahead of commencing their professional journey it influences their attitudes and perceptions towards inclusion in mainstream classrooms. D'Agostino reinforces the findings in this study, which went beyond exposure to ensuring meaning, explaining the interactive experience of inclusion. These

discussions shed light on why this study aims to add to the body of knowledge on how teachers perceive their preparedness for inclusive practice and roles played by Initial Teacher Education (ITE), school inductions and Continuous Professional Development (CPD). Most importantly, it rationalises the need for the second research question and combined training intervention.

Initial Teacher Education (ITE), school inductions and school CPD play significant roles in equipping pupils for inclusive practice. The investigations in literature into autism and equipping teachers for inclusive practice have, inevitably, prompted increased scrutiny into how teachers are equipped for inclusive practice by Initial Teacher Education (ITE) and schools. Florian and Rouse (2009) argue that the task of initial teacher education is to prepare student teachers to enter a profession that accepts individual and collective responsibility for improving the learning and participation of all children; while Cardona (2012) states that initial teacher training would provide the best means to create a new generation of teachers who will ensure the successful implementation of inclusive policies and practices, but this is not always the case. Both studies put forward compelling arguments for the role of ITE. Ravet (2018) in *'how do I teach them?'* found that ITE did not prepare students to teach autistic pupils and those with other special educational needs.

Seeking to gain deep insights into a problem is a key action research principle. This is usually followed by planning actions to improve the situation, once the extent of the problems is understood from research findings. Jones and Jones (2013) notes that many in the field of special education believe that autistic pupils need educational interventions that are built on an understanding of their conditions coupled with knowledge and understanding of the individual child. In parallel to this, gathering information from literature enables the design of interventions that help understand the problems identified with equipping beginner teachers. Parsons *et al.* (2020, pp. 770−789) argue that SRPs are a model of support for students and staff, and that resource provision is important for inclusive education because it 'provides the best of both worlds' for children.

1.5 Definitions of terminology used in this study

This section of the introductory chapter is an attempt to define, explain and contextualise the background and specific relevance of some of the key

terminologies used throughout this thesis; such as 'autism', 'inclusion', 'the ', 'ITE' and 'action research'. Throughout this study, certain terminologies, words and phrases are used interchangeably to represent the same concepts or ideas. For example, 'equipping beginner teachers' is used interchangeably with 'teacher preparedness', depending on how it fits into the discussion, and 'pupils', 'children' and 'students' are also all used interchangeably.

'Participants in the study' represents the eight beginner teachers who took part, but 'Beginner teachers' is used to represent the greater body of new teachers within the first year of commencing the profession in England.

1.5.1 Autism

Defining autism includes understanding its evolution over time. Autism is described as a developmental disorder that is part of the autistic spectrum Condition (ASC) and is associated with certain complex behavioural characteristics that manifest during early childhood (APA, 2014). Bleuler (1951) first used the term 'autism' to describe what was called 'childhood schizophrenia' (Runswick-Cole *et al*., 2016). In the 1940s, two other psychiatrists, Kanner and Asperger, studying groups of children separately, found that the children they were working with had distinct sets of symptoms. Kanner's work laid the foundations for early autism study (1943). Autism, as a diagnostic construct, was proposed by Kanner in 1943 to describe a group of 11 children who were emotionally and intellectually impaired and showing extreme aloneness from early life (Runswick-Cole *et al*., 2016). By 1955, Kanner had reported a total of 120 cases of 'infantile autism'.

In 1944, Hans Asperger published a paper in which he described children with not easily recognisable intellectual impairment, but with social communication problems. These features were later classified as 'Asperger's Syndrome', which, later, contributed to the expansion of autism into Autism Spectrum Syndrome, Wing (1981). Since, Kanner, the definition, characteristics and understanding of autism have evolved greatly. Although autism remains, largely, a medically diagnosed condition, there are shifting cultural contexts in which contemporary understanding of autism resides. Recently, post positivists views and interpretations of autism as a social construct are widening.

Autism was widely characterised by the 'triad of impairments' first proposed by Wing and Gould (1979); now removed from the Diagnostic Statistical Manuals (DSM-V). Autistic pupils are said to have difficulties with social communication, that is, with using and understanding verbal and non-verbal language (such as gestures, facial expressions, tone of voice); problems in recognising and understanding other people's feelings and managing their own; and social imagination, such as problems understanding and predicting other people's intentions or behaviour; and imagining situations outside their own routines (Department of Health, 2010). The World Health Organisation (1992) classifies some elements of the triad of difficulties and social imagination as 'restricted, stereotyped, repetitive behaviour' (p. 181). Derogatory descriptions of some characteristics of autism can have far reaching consequences. Wood (2018; 2019) suggests that labels like 'disorder', 'deficit', 'impairment' and 'dysfunction' still abound in the 21st century and are ascribed to a group of vulnerable people. The definition of autism continues to evolve and recently, the 'neuro-diverse' characterisation has been the most strength-based approach to viewing autism.

1.5.2 Inclusion

Inclusion, too, has evolved over time, yet it continues to lack a singular, unifying definition, leaving observers and experts like Booth and Ainscow (1998) to concur that, regardless of any seeming clarification, the term inclusion, in the context of education, remains much contested. However, it is widely supported by the field that inclusion must consider environmental factors and the need to create a supportive and safe space. Jones *et al.* (2008) argue that linking inclusion and autism goes further than simply breaking down barriers to participation and belonging; rather, this link should aim to cover the total experience of a child or young person on the autistic spectrum and his or her family.

The Salamanca Declaration (1994) defines it as a universal human right. The Equality Act (2010) sets out aims for inclusion to embrace all people, irrespective of race, gender, disability, medical or other need. Like the Salamanca Declaration, it demands that inclusion is about equal access and opportunity and eliminating discrimination, intolerance and barriers, and it affects all aspects of public life. The emotional safety of the 'unique child' (The Salamanca Declaration, 1994) must be central to inclusive provision and 'inclusion', then, becomes a

process of including and educating a child in a way that recognises and assesses that child's needs. The development of inclusive practices is seen as involving people within a particular context. Booth and Ainscow (1998) argue that there is a need to address the barriers to education experienced by some learners and to eradicate the problems encountered by these young people. This study asserts that although inclusion remains a contested area in schools, it is better understood, but its definition continues to evolve.

1.5.3 The SEND Code of Practice

The initial SEN/D Code of Practice was first published in 2001 with distinguishing sections for primary and secondary schools. The updated, more family-centred version, in 2015, unifies and recognises children's education as a continuum. Additionally, it references mainstream and special schools, insisting that every school must pay heed to the SEND Code of Practice (2015) when taking decisions relating to pupils with SEN or disabilities and that they must make reasonable adjustments to accommodate the needs of pupils. It states that early years providers and colleges must take steps to ensure that young people and parents are actively supported in contributing to the needs assessments, developing and reviewing education and health care plans. The code has been designed to be easily understood by parents and young people; to advocate respect for their strengths and capabilities, and promote education tailored to their needs by relevant professionals, brought together to support the interests of the child.

1.5.4 Action research

Action research is a research methodology that can be used to investigate and act to solve the identified problem (Stringer, 2014). It was a term coined by Kurt Lewin (1944) as a useful tool for change and a systematic approach to investigation that enables people to find solutions to problems they confront in their everyday lives. Action research is a cycle of inquiry (McNiff, 2010) that allows practitioners to investigate their own institution, making it suitable for this research, which was conducted in the researcher's own institutions to find out more about how beginner teachers can be equipped for inclusive practice. Action research is a process that helps to build a body of knowledge that enhances

professional practice. The three phases of the intervention allowed, first, for data to be collected before the intervention; second, for reflection on the impact of the data collected and third, the use of views expressed to adjust and finesse the plan. This continuous cycle of reflection was evident throughout the study.

As an issue- and change-oriented, collaborative process, action research involves reflection on actions, repeating processes and rethinking interpretations. McNiff (2010) explains that action research begins with action taken to improve something, followed by reflection intended to analyse, understand and explain the outcome of the action, thus generating a theory – the word theory meaning explanation. Through action research, we review our current practice; identify an aspect we want to improve; imagine, or try out, a way forward; and take stock of what happens. It involves modifying plans in the light of what we have found, and continuing with the action. We also monitor what we do and evaluate the action further. The theory is embodied in the people as they offer descriptions and explanations for how they come to know and how they use their knowledge − Whitehead's (1989) idea of 'living educational theories'. It is the process of people researching their own learning with a view to generating their own theories of practice. McNiff, Lomax and Whitehead (1996) argued that action research is about people investigating their work with other people as internalist perspectives and what implications this has for the form of theories we generate.

In this study, action research is used to describe collaboration among school-based teachers, altering common school practices and working for social change by engaging in a continuous process of problem posing, data gathering, analysis and action. As Cochran-Smith *et al* (2009) state that teachers work together to examine assumption, develop local knowledge by posing questions and gathering data. McNiff and Whitehead (1996) wrote that empowered participant groups that are diverse in age, background and beliefs, make it feasible. The reflection built into the processes in this study was enlightening for all involved because it generated a sense of purpose for participants.

1.5.5 Initial Teacher Education (ITE)

ITE is summarised by Florian and Rouse (2009) as being tasked to prepare student teachers to enter the teaching profession, which accepts individual and collective responsibility for improving the learning and participation of all children.

This positions ITE as a key route for ensuring quality education in England; thereby, emphasising the need for high quality teachers who are equipped to meet the needs of all learners.

The knowledge, beliefs and values of the teacher that are brought to bear in creating an effective learning environment for pupils are crucial. Reynolds (2009) concluded that these are fundamental in making the teacher a critical influence in education and the development of inclusive schools. However, Cardona (2012) notes that ITE would provide the best means to create a new generation of teachers who will ensure the successful implementation of inclusive policies and practices, but this is not always the case. It may therefore be advantageous to use the findings of research to improve training processes and outcomes for pupils, coupled with ensuring that teachers in their early years feel successful and able to support all children, particularly those with special educational needs.

1.5.6 Philosophical perspectives of this study

Social constructivism was employed in designing the study, ensuring that collaboratively, participants could construct shared knowledge about autism and inclusion practice through debate, discussion and joint investigation of the concept. Once the research problems were identified, the plan of action to understand and address the problem was set out. The phased approach to the training intervention aligned with action research in that it allowed planning, reflection on action and subsequent adjustment. This study embraces a social constructivist perspective, with a qualitative approach. The research method is exploratory and inductive.

As a social constructivist, the researcher's stance on how truths are socially constructed, and belief in the fluidity, rather than rigidly constructed truths, aligns with Vygotsky's (1978) view that constructivists seek to understand the world they live and work in, ascribing subjective meanings to their experiences. This study was designed to enable data to be generated from participants' views. Mertens (2010) notes that social constructivist researchers rely heavily on the participants' views of the situation being studied. Also, the design of this research, and the use of open-ended questions, ensures it remains inductive and exploratory in nature. Crotty (1998) describes social constructivist researchers using open-ended questions to seek diverse responses to the same issues from varied

viewpoints, which is seen to help to understand contexts. Also, gathering information personally helps to shape the researcher's own experience. Hammersley (2013) notes that social constructivism enables researchers to focus on how people collectively construct their social worlds, making meanings and examining situations through multiple lenses.

Having embraced a social constructivist approach for the ontology of the study, an epistemological stance was adopted that would align with it. The way of researching or enquiring into the question of teacher preparedness for this research would require seeking knowledge and understanding of the issue from beginner teachers in a school context and, as a teacher and school leader researching their own profession, the researcher was able to contribute knowledge and experience from yet another perspective. Employing a range of methods in gathering data helps to increase the reliability of the findings.

1.5.7 Constructivist grounded theory (CGT)

This study did not set out to use Grounded Theory (GT) in its pure form but to select aspects of it that might help to deepen understanding of the phenomenon studied. Those aspects adapted for this research provide a methodological and analytical flexibility that align with its ontological and epistemological stance. Sebastian (2019) suggests that Charmaz's (2006) Constructivist Grounded Theory (CGT) is, philosophically, both interpretivist and constructivist, which supports the methodology of this qualitative study. In particular, it clarifies the role of the researcher (Charmaz, 2014), explaining that the researcher 'constructs' rather than 'discovers' meaning, and that they bring with them prior knowledge, as well as the awareness of its influence that cannot be erased from the study.

Charmaz's CGT proved useful in more than one way. Apart from, clearly, being in line with constructivism, it also offers flexibility. For example, it does not dictate the point at which the literature review should be conducted, unlike Glaser and Strauss's (1967) GT, which decrees that the literature review should only be conducted after the data collection. Strauss and Corbin's (1997) Interpretive Ground Theory (IGT), however, is slightly more flexible than GT in that the literature review may be conducted before, or during, data collection (Sebastian, 2019), and can be used to confirm or explain that data.

Although it is beyond the scope of this study to be as in-depth about the differences between the CGT (Charmaz, 2006; 2014) employed by the researcher and the pioneering GT of Glaser and Strauss (1967), Chapter 4 expands on the benefits of CGT and why it is deemed more suitable than the classic GT in this case.

Constructivist grounded theory (CGT) is a useful tool for analysing and generating meaning from data. Charmaz (2002) notes that researchers begin with assumptions and perspectives that cannot always be exorcised (for example, their positionality, which should, in any case, add value and meaning to the study). The researcher's position as a leader of the institutions involved in this case study is made explicit with the potential for bias recognised and declared. Charmaz (2008) argues that bias should be taken into account as a variable, and researchers should analyse their own perspectives and feelings as they would another piece of data, as a way to unearth the underlying social conditions in the field. To this effect, the positionality of the researcher has been conscientiously built into the design and data collection and steps were taken to reflect and report on any influence on the study. Charmaz (2008) argues that the researcher's standpoint is not an add-on, it is a way of seeing the world they reside in and its context. Therefore, rigorous self-reflection surrounding how the researcher may have influenced the conception of the study is key to the validity of its findings.

Constructivist grounded theory (CGT), for example, aligns well with the features of action research and social constructivism and was considered appropriate for this study because it is grounded in a qualitative paradigm, aimed at gaining clarity and understanding of a question or problem. This study sought a solution to an identified problem with no fixed notion of how a solution could be found. It adopted a multifaceted approach that enabled varied participant views to be considered and represented. Constructivist grounded theory (CGT) also aligns with using interviews as a data collection tool, followed by a comprehensive literature review that helped to explain the emerging results and theory.

Having a theoretical framework to research clarifies which facts and evidence will, and will not, be relevant and important in the research questions that need

to be posed to understand and explain an issue (Charmaz, 2006; 2009). The findings in this research emerge from data and are underpinned by constructivist theory. Theoretical frameworks seek to explain at a higher level of abstraction and generality and are based on the accumulated wisdom of multiple tests and research. They encompass general ideas that underpin the conceptual framework. This study has adopted a theoretical lens to guide it and to raise questions on the specific issues to be explored or addressed.

CGT creates a positive approach to what is being learned regarding the phenomenon, enabling a sense of ownership and discovery on the part of the participants. For this study, it led to increased confidence as the process moved from the initial interviews in phase 1 to the mid-intervention interviews in phase 2. As a methodology for the collection and analysis of data, Charmaz (2014) claims that CGT provides systematic yet flexible guidelines that aid in the construction of theories that are grounded or rooted within the data. It embraces a research process that values the participants' and researcher's contribution and how it helps to develop understanding. It was particularly beneficial for this study because although the data analysis process began by coding the most frequently occurring data (which was formulated into the main themes), it allowed for sufficient revisiting to recognise the less frequent (but equally significant) data to be included under sub-themes.

Using aspects of CGT in this study helped shape the relationship and interaction between the participants and the researcher by defining and describing the researcher as an author who writes a story, as told by the participant after undergoing a process. Another key benefit to the use of CGT is the way the research questions predispose the data collection method (Charmaz, 2014) allowing for adaptations and adjustments that align with action research.

1.6 The organisation of the rest of the thesis

Chapter 2: Autism in mainstream schools in England – a literature review

This chapter reviews existing literature on beginner teachers' understanding and perceptions of autism and their attitudes towards autistic children. It explores the influences that affect the way autism is perceived and the implications of the way

autism is described on the way the autistic pupils are viewed. It examines how theories of autism have evolved over time and looks at current understanding of autism. Finally, it explores how autistic pupils can be supported to overcome challenges they face in mainstream schools in England.

Chapter 3: Equipping beginner teachers for inclusive practice – a literature review

This chapter examines the extent to which beginner teachers are equipped for inclusive practice in mainstream schools in England. It looks at what constitutes inclusive practice and offers insights into what it means to have inclusion integrated in mainstream education. How beginner teachers perceive their inclusion role is interrogated and it seeks to understand the issues that influence their perception of what inclusion means. There is an examination of the roles of ITE, school inductions and CPD in equipping beginner teachers for inclusive practice. Finally, the role of SRPs and exposure to hands-on practical experience in an SRP are explored.

Chapter 4: Methodology and research design

This chapter explores the research design and methodology employed to anchor the research. It examines how social constructivism informs the design of the study and how an action research project approach is used to investigate how effectively beginner teachers can be equipped for inclusive practice in England. It outlines how constructivist grounded theory (CGT) aligns with action research and the theoretical framework, enabling the study to be grounded in data that has been systematically collected and analysed. Ethical issues and the implications of addressing researcher positionality are also covered. The validity and credibility of the research design choices are outlined in each section and a justification is provided for data gathering in three stages, explaining the choices of data collection methods, which include surveys by questionnaire and interviews.

Chapter 5: The action research training intervention

This chapter outlines the training intervention that played a central part in this action research project, exploring how beginner teachers might be equipped for inclusive practice. It details an investigation of autism in mainstream schools in England, looks at what influences the way autism is perceived by beginner teachers and explains how the data was collected for this project. This training intervention formed part of a series of actions taken to address an identified problem in two primary educational institutions in England and was developed collaboratively with beginner teachers, who had first-hand knowledge and experience of the problem and a deep understanding of what the solution could look like through their lived experience. The training intervention used a phased approach to address the identified problems as part of an action research cycle.

Chapter 6: Pre-intervention findings and discussions

This chapter outlines the findings from Phase 1 of the action research project before the training intervention took place. Based on the views of the participants before the training intervention, three themes emerge − beginner teachers' lack of understanding of autism, the complexity of inclusion and beginner teachers' lack of preparedness. Discussion of the findings is anchored by a social constructivist worldview and is used to highlight the contributions of the research to the existing body of knowledge.

Chapter 7: Intervention, findings and discussions

This chapter outlines the outcomes of Phases 2 and 3 of the action research training intervention, which capture data during and after the intervention. The discussions align with, and are anchored by, a social constructivist worldview. The themes that emerge are; addressing misconceptions and misunderstanding of autism, combining theory and practice to equip teachers and collaborative learning opportunities. The themes are discussed and the contributions to the body of existing knowledge are highlighted.

Chapter 8: Conclusion

In this chapter, the aims of the research are reviewed, and a summary provided of the findings in relation to the research questions. The research methodology is outlined, and the limitations of the thesis are reiterated before revisiting the conceptual and theoretical framework. The study's implications for future research and recommendations for future practice are, then, discussed, followed by the distinctive contributions of this study to the existing body of knowledge on interventions for beginner teachers' professional learning. The chapter closes with reflections on the personal learning and development of the author that emerged from conducting this research.

Chapter 2: Autism in mainstream schools in England – a literature review

2.1 Introduction

This chapter investigates existing literature on the inclusion of autism children in mainstream schools in the UK. It aims to extract meaningful insights from what is already known about how teachers at the start of their careers perceive their preparedness to include autistic pupils in mainstream classrooms. It also seeks to identify gaps in the existing knowledge on teacher preparedness. Previous studies on the relationship between beginner teachers' perceptions of autism and their attitudes towards autistic pupils in mainstream schools enhance and underpin the design of this research.

Through the works of fellow researchers, the factors that influence beginner teachers' misconceptions of autism are scrutinised to understand how they affect autistic pupils. This literature review examines the implications of how autistic pupils are described and why experts in the field of autism challenge those descriptions, asserting that they are often unhelpful and even damaging. It also provides a foundation for discussion on some of the key theories of autism that contribute to how autism is perceived today. In addition, past studies interrogate how autistic pupils can be supported to overcome the challenges they face. Lastly, there is an investigation of emerging theories that present alternative ways to view autism and how mainstream schools might better support autistic pupils.

It should be noted that much of the data collection for this study occurred under the older, Newly Qualified Teachers (NQTs) framework but, following a change in UK government policy (2019), the Early Career Framework was introduced in September 2021. NQTs are now, more generally, known as Early Career Teachers (ECTs), which refers to teachers in the first year of their careers in England. For this study, however, the term 'beginner teachers' is used throughout. This study remains relevant because although policy has changed in relation to the length of the programme of the framework from one to two induction years, many of the problems that were identified during the data

gathering persist. This review also examines studies focusing on action research as a model for educational study.

2.2 Beginner teachers' misconceptions of autism

This section investigates the literature on the relationship between beginner teachers' perceptions of autism and their attitudes towards autistic pupils in mainstream education. It explores the existing body of studies for factors that influence beginner teachers' views of autism to gain a consequential understanding of how beginner teachers perceive the condition, as well as their own preparedness to include autistic pupils in mainstream classrooms. This review also seeks to identify gaps in the existing body of knowledge around teacher preparedness. The perceived complexity of autism has influenced the misconception that an understanding of it will remain elusive and inaccessible, indeed, that it defies understanding. The Autism Education Trust (2019, p. 9) fuels this notion when it states that autism is 'a complex, lifelong neurodevelopmental disability that affects how a person communicates with, and relates to, other people; a spectrum condition that affects how people make sense of the world around them'.

In other examples, Milton (2012) declares that it requires 'close examination and determination to understand the complexity of living with autism' (pp. 27−29). Autism Education Trust (AET) (2019) highlights the complexity of autism woven into its definition of the term, while pointing to distinct aspects of what being autistic means for the individual that help in understanding autistic people in general. Milton (2012) sees it as essential for professionals to understand autism, being an autistic researcher himself. There is a recognition that the lack of understanding, and the perception of autism as a 'complex' (and by implication, prohibitively difficult to grasp) condition feed into the misconceptions of autism. This indicates that beginner teachers would need to be equipped with an understanding of autism as well as strategies and pedagogies to teach autistic pupils. Sans-Cervera *et al*. (2017) suggest that 'autism is a highly complex and poorly understood area of education' (p.134) and this echoes earlier findings by Ravet (2017), who argues that 'autism is complex, far from understood and requires further examination' (p. 3). Both comments acknowledge that the

perceived complexity and consequent inaccessibility of autism plays a role in why it is misconceived, misunderstood and sometimes misinterpreted.

The importance of understanding autism is evidenced in the report by The All-Party Parliamentary Group for Autism (2017) in England. They found that 60 per cent of autistic students believe that having teachers who understand autism is the main thing that would improve their experience of school. However, a survey of 308 teachers reviewed by the group found that fewer than half felt confident about supporting autistic pupils, with the confidence level lowest among beginner teachers. This highlights that misunderstanding autism requires further investigation so that the findings can build on existing knowledge to support beginner teachers. Exploring the existing body of literature to extract factors that influence beginner teachers' misconceptions of autism, Williams *et al*. (2017) found that a broad lack of understanding of how autism can manifest in pupils can result in misinterpretation of information being communicated through behaviour (pp. 13−14). This places a focus on broadening beginner teachers' understanding of autism, with a view to reducing the instances of behaviours being misinterpreted. It questions teachers' in-depth understanding of the characteristics of autism and the nuanced differences between the behaviour and the message it intends to communicate. Crucially for this study, the findings by Williams et al (2017) link misunderstanding autism with why teachers feel ill-equipped for inclusion.

The misinterpretiion of autistic pupils' communication as poor behaviours can have a profound effect on autistic pupils. Milton (2012) argues that the challenges autistic pupils face cannot be intrinsically linked to individual flaws because of the complexity of living with autism (pp. 27−28). There is an implied need for training of teachers on strategies to support autistic pupils in a mainstream context. Anglim *et al*. (2018) explored the lived experiences of teachers in Northern Ireland concerning the inclusion of autistic pupils and found uncertainty due to a lack of experience and training. Beginner teachers' attitudes towards autistic pupils have been linked to perceptions of autistic pupils' behaviour. Wood (2019) found that teachers' negative perceptions of autistic behaviours resulted from a lack of understanding of how autism is manifested in autistic pupils. She suggests that simply understanding autistic pupils better could help, rather than hinder, autistic pupils' ability to cope with everyday life in mainstream environments.

Sanz-Cervera *et al*. (2017, p. 134) also found that understanding autism will equip teachers with strategies to improve their ability to support autistic pupils in the fast-changing landscape of mainstream schools. Although, they do not outline how the 'understanding' might lead to actionable strategies for inclusion, which might indicate a need for specific theory *and* practical training, including explicit strategies.

In addition to needing specific strategies, Ravet (2011) found that it is essential for teachers to understand autism well and to respond appropriately to meet their needs (p. 680). Ravet argues that teachers' perception of autism as complex leads directly to profound consequences for autistic pupils, such as stress, anxiety and problems with social functioning and learning in general, thus fulfilling the teachers' fears (2015). Pellicano (2021) found that behaviours simplistically associated with autism are damaging to the way the pupils are perceived (p.326). She suggests that the misinterpretation of behaviours and general misunderstanding of autism are flaws in the system (p. 382) because they impact beginner teachers' attitudes towards autistic pupils. There are indications that autistic pupils are impacted by the misunderstanding of autism. However, teachers are also affected by their misconceptions. There is an urgent need for further research to support teachers in understanding the behaviours associated with autism.

The conceptual framework of this study demonstrates the impact of the links between poor perceptions of autism due to a lack of understanding and lower confidence in teachers and locates teacher perception as a research problem. It will show that teachers' negative perceptions impact teachers' confidence. Humphrey and Symes (2013) found that teachers had a negative perception of autism, lacked confidence in their understanding of it and struggled with managing behaviour. The study surveyed fifty-three teachers across eleven secondary schools in the northwest of England using case study methodology, However, the teachers showed a willingness to develop their expertise in autism.

To summarise first, there is a suggested link between negative perceptions of autism and lack of confidence in teaching autistic children; second there is an implication that poor understanding of autism, and a negative perception of it, are linked to teachers' struggles with behaviour. Third, teachers are keen to develop their expertise in this area. There is, however, scope for further exploration and

this study investigates the extent to which a negative perception of autism and consequent low confidence influences teachers' attitudes towards the autistic pupils themselves. It looks at how inexperienced teachers' misplaced focus on autistic behaviours can negatively impact autistic pupils.

The Autism Education Trust (2019, p. 9) states that autistic pupils face wide-ranging challenges that affect their school life, including maintenance of friendships and relationships, restrictive and repetitive patterns of behaviour, obsessive adherence to routine, resistance to change, and non-standard movement, gait, speech and sensory responses. They argue that despite recent developments in awareness and recognition of autism, its effect on how pupils interact, play and process information is poorly understood in the school context. This means that there is much scope for further exploration into what it means to be autistic and how best to support autistic pupils. They claim that the lack of expertise in this area of special education is a barrier to good outcomes for autistic pupils. This shows a gap in training as teachers lack the knowledge and strategies to include autistic pupils. This, therefore, suggests that future studies can integrate these findings and explore the reasons why teacher training does not fully equip the teachers with adequate knowledge and actions that can mitigate the gap in strategies to include the pupils.

There remains a need to strengthen the teaching workforce because the government's data shows that 70 per cent of autistic pupils attend mainstream schools in England (Department for Education (DfE), 2019). Further, the DfE stated that the number of children and young people who had autism as their primary special educational need had increased from 66,195 in 2011/12 to 119,909 in 2017/18 (2019). This shows that only 30 per cent of autistic pupils are either in special schools or in alternative education and the general special educational needs population increased by 53,734 in five years. Matthews (2021, p. 3) found that the prevalence of autism in England increased from one in one hundred children to one in fifty-seven children in 2020. The increased number of autistic pupils means that all teachers are likely to work with autistic pupils at some point in their careers. Whilst the government needs to produce data that highlights the increase, studies continue to show that beginner teachers remain ill-equipped for inclusive practice.

Sanz-Cervera *et al.* (2017, p. 134) suggest that schools may not be equipped to deal with the increased number of autistic pupils in mainstream schools and that teachers may struggle to cope with this highly complex and poorly understood area of education, and they argue that more qualified and skilled teachers are needed to respond to the growing needs and increased number of autistic pupils in mainstream schools. The causal effect of the increased number is the greater likelihood that most beginner teachers will have an autistic pupil in their mainstream classroom. One can, therefore, discern that there is an urgency to ensure that beginner teachers are equipped with the necessary knowledge and skills to provide support for the growing number of pupils coming into mainstream schools. Beginner teacher's understanding of autism is the first step in equipping them for inclusive practice. Misconceptions of autism are ineffective and disadvantageous to the pupils, fuelling negativity. Many studies suggest that understanding autism will reduce the misinterpretations that impact pupils. In the next section, attention turns to how descriptions of autism impact autistic pupils.

2.3 How autism is described and its impact on autistic pupils

The conclusion that is drawn from the literature selected for this section is that descriptions and depictions of autism impact the way beginner teachers perceive autistic pupils. In many studies, the way autism has been described is challenged by the researchers, who widely acknowledge that the diagnostic tools currently in use portray autistic pupils negatively, contributing to stigmas attached to autism. Pellicano and Houting (2022) condemns the view of autistic pupils having deficits to be 'a considerable misunderstanding', declaring it damaging and rooted in the medicalisation of the condition by the diagnosis process (p. 326). The World Health Organisation's International Classification of Diseases (ICD-11, 2022) manual, which is the only assessment manual that officially applies to the National Health Service (NHS) in England, describes autism as deficit in nonverbal communicative behaviours used for social interaction.

There are consequences of the descriptions of autism, and Pellicano and Houting (2022) suggests that the use of labels portrays autistic people as dysfunctional, which is 'a considerable flaw because they highlight how, indirectly, the diagnostic tools set a precedent for autism to be perceived as negative, implying

that how autism is perceived stems from the diagnostic process (p. 382). She argues that the notion of deficits draws attention away from the strengths of autistic pupils and focuses on their limitations.

In England, diagnosing autism remains a formal medical process that evaluates a child's development, usually completed by specialists such as a developmental paediatrician, a child psychologist, a speech and language pathologist, an occupational therapist, a paediatric neurologist or developmental paediatricians. There are set criteria used by specialists and experts, and further descriptions are offered, for example, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (2013) explains that the deficits result in functional limitations in effective communication, social participation, social relationships, academic achievement and occupational performance, individually or in combination. The way the DSM-5 (2013) describes autism emphasises these points and concerns about the diagnostic process and the implications for autistic pupils.

The DSM-5, a publication by the American Psychiatric Association (APA) does not directly affect England's NHS patients but is used by diagnostic teams across the country. It describes autistic characteristics as including persistent deficits in social reciprocity and in using communication for social purposes, and impairment of the ability to change communication to match context or the needs of the listener (2013). For example, speaking differently in a classroom than on the playground. Runswick-Cole *et al*. (2016) challenge the scientific validity of the process of diagnosing autism, seek to understand the effects of the labels attached to autism and argue that views on autism have been constructed negatively over time, producing a perpetually marginalising approach towards autism. The authors share a commitment to challenging non-critical approaches to autism that damage the people who receive the label (Runswick-Cole et al.,2016 pp. 7−8). Therefore, this exploration of the literature highlights the effects of labels and the consequences for autistic pupils, and this requires further examination.

There are notable commonalities in the descriptions of autism for diagnostic purposes as a medical condition. The World Health Organisation (WHO) (2019, p. 43) describes autism as a group of complex brain development 'disorders' that are characterised by difficulties in social interaction and communication and a restricted and repetitive repertoire of interests and activities. Studies show that

these unified, generalised descriptions have a far-reaching influence on perceptions of autism. The DSM-5 (2013) elaborates that autistic people can exhibit deficits in developing, maintaining and understanding relationships, ranging, for example, from difficulties in sharing imaginative play or in making friends, to an absence of interest in peers and highly restricted. In addition, they can be fixated on interests that are abnormal in intensity or focus.

Experts in the field of autism have commented on the importance of equal and empowering practices in schools in relation to the autistic pupils because too often, the opposite seems to dominate their findings. Hodge (2016) suggests that labels 'protect the interests of the powerful' and marginalise children (p. 189). He argues for more equitable and enabling practices for all pupils, considering the impact of labels on the labelled. He stresses the importance of ensuring that education systems are fair and even-handed, and for schools to recognise the strength and ability of autistic pupils and support the eradication of damaging labels. Hodge (2016) criticises the way the label of 'autism' impacts autistic pupils and devalues the pupils through further labels like 'disordered', sometimes leading to exclusions and expulsions from school. He declares that labels represent the views of diagnostic tools that promote negativity and segregation and are likely to shut down supportive voices. In addition, he posits that labels not only isolate autistic children in mainstream schools, but they push the autistic pupils − the most vulnerable −to the margins of the school community. In some instances, labels serve as 'flags' on autistic pupils and lead to tension in teachers about working with them, which leads to further isolation. He points to a strengths-based approach to autism and autistic pupils as a way to change this culture, thus empowering autistic children and their families, conceptually and practically.

It is worthwhile to examine the perspectives that more studies contribute to the debate surrounding labelling. Pellicano goes on to suggest that when describing autism, researchers tend to use a list of 'typical features' − terms that have emerged from diagnosing the condition (2022, pp. 382−384). However, the use of the 'typical features' of autism as a description is challenged in other literature. Happe *et al.* (2006, p. 218) found in their study of 3,000 twin pairs assessed between the ages of seven and nine, there were modest, to low, correlations between autistic-like behavioural traits in three core areas. Their findings show that many of the children in the study only exhibited one or two of the 'typical

features', with 59 per cent of the children demonstrating social challenges. This raises questions about assumptions that all the 'typical features' manifest together in all autistic people, and although autism is viewed as having 'typical features', there are instances where they may *not* appear together.

Some studies have put forward alternative ways to view autism that does not diminish the strengths of the pupils. Rutter (2014) proposes that there may be exceptions to the typical views of autism. For example, pupils diagnosed with Asperger's Syndrome, a type of autism, may not fit these features entirely, and it may be 'meaningless' to disentangle the effects of autism completely from the core features. Indeed, Asperger's syndrome has been removed from the DSM-5 (2013) classification. Pellicano (2022, pp. 382−384) suggests that the alignment of views among researchers about the 'typical features' of autism may have had the unintended consequence of overly simplifying the identification of autism, thereby increasing the number of pupils diagnosed.

Evidence from studies supports the argument that there are damaging stigmas attached to autistic pupils. These stigmas focus on the perceived inabilities of autistic pupils, instead of highlighting their abilities. Wood (2019) provides insight by opposing the use of terminologies that portray autistic pupils as 'deficient' and 'insufficient'. She argues against attaching these negative labels to autistic pupils, particularly as the terminology comes from the medical diagnostic manuals, which bring an authority that adds weight to those perceptions. She proposes that unfair beliefs distract from the abilities of autistic pupils and focus on the limitations, whether they are speaking or not speaking, for the words they choose or do not choose, for talking too quickly or too slowly, for doing so at the wrong time, in the wrong way or the wrong place. Wood (2019) insists that it is time to consider what autistic pupils can do instead of how they may be 'disabled'. She explored classifications of autistic pupils and found underlying perceptions of what neurotypical pupils can do compared with what pupils with autism are unable to do. Her findings show the relevance of seeing autism from the perspective of the autistic person. For example, some autistic pupils can be monotropic, meaning they have a unique style for processing information, they can focus strongly on a small number of things at the same time and tend to miss out on things outside their 'tunnel' (they are often described as having tunnel vision). Until recently, autistic people have not had a voice, but this is changing.

Pellicano (2022, p. 326) welcomed the increased emergence of studies by autistic researchers, adding their voice to how the autistic community views the diagnostic process.

Milton (2012, p. 27), an autistic researcher, challenges the idea that anyone identified as autistic should face the stigma and stereotyping associated with the diagnostic tools, which persistently refer to deficits, disorders, abnormalities and dysfunctionality when describing autism. He argues that moving from a 'deficit' model of autism requires close examination of a few variables of identity, ability and determination to understand the complexity of living with autism (Milton, 2012, pp. 27−28). He primarily argues that autism should no longer be reduced to the explanations of certain behaviours based on the medical diagnostic tests alone and argues that emphasis on the challenges autistic pupils face cannot be intrinsically linked to individual 'flaws'. This is an invaluable insight into the contradictions of the diagnostic process, highlighting the effects of inconsistency on autistic people, and the erroneous belief that 'getting help' translates to 'accepting abnormality'. He also suggests that there is often no association between 'normal' and 'autistic', that is, there is implied frustration with the view that autism, or being autistic, is assumed to be abnormal.

So, despite recent developments in the awareness and recognition of autism, labels attached to autism through the descriptions in the diagnostic manuals remain the only medicalised option to diagnose the condition. Despite the growing objections and the condemnation of the use of damaging descriptions, including the offer of alternative descriptions by researchers and autism advocates, the language used remains enshrined in the diagnostic manuals. There is still a long way to go in understanding what it means to be autistic or how to support autistic pupils without the labels that fuel a negative perception of autism. However, there is scope for further exploration of alternatives to the diagnostic manuals and new definitions that embed strengths-based approaches to the education of autistic children.

2.4 Theories of autism

Theories of autism have affected the way it is understood both negative and positive ways. Through this review, some of the theories that support how beginner teachers form their perceptions and attitudes towards autism have been

selected. Theories of autism have evolved rapidly in recent years as new understanding emerges, yet some theories have had a more profound influence than others. Theories included in this section progress the exploration of the topics of this thesis and contribute to how autism is currently perceived, a stance that is moving away from a 'deficit' to a 'strengths-based' approach.

Frith argues that the central focus of autism should be the 'mind of the autistic person' (2008, pp. 89−90). Her Weak Central Coherence theory (1981) proposed that autistic pupils have a limited ability to understand context or to 'see the big picture', which, she claimed, underlies the central disturbance in autism. This psychological theory of autism posits that 'autistic people think about things in their tiniest parts' but also, that autistic people have the central coherence to derive overall meaning from a huge mass of details, such as complex mathematical problems. She explains that some autistic children can perceive details better than their neurotypical peers and suggests that autistic pupils can develop strong skills in maths and science, which is a strengths-based approach to viewing autism. Frith suggests that autistic individuals can, at times, become fixated on details, exhibit literal thinking and struggle with reading comprehension and generalising information (1981). Frith (1989) investigated specific cognitive processes and their failure in autistic pupils. Her work aimed to discover a causal link between disorders and behavioural symptoms. Frith also suggested that autistic people have specific difficulties understanding other people's emotions (1989). This view strongly influenced Simon Baron-Cohen, her student at the time, who went on to develop one of the most contested theories of autism. Baron-Cohen (1999, pp. 37−46) proposed a Theory of Mind (ToM) or the 'Mind blindness' theory that suggests that it is this blindness to what others are communicating that is a 'deficit' in children with autism. The theory suggests that the apparent inability to see from others' perspective or read the emotions of others is an impairment that results in many of the common 'deficits' in autism. He contends that the 'puzzling behaviours of the autistic pupils' he observed, compelled him to explore the disconnect between intelligence and social skills.

Happe and Frith (1994, pp. 115−132) claim that, although the ToM account of autism has been successful in making specific predictions about impairments in 'socialisation, imagination and communication' shown by autistic people, it is less useful for explaining the existence of autistic individuals who consistently pass

false belief tasks, that tests the autistic child's ability to predict other children's perceptions of a set task.

Singer (1998) first used the term 'neurodiversity' in her thesis in 1998. Fenton and Krahn (2007, pp. 14−17) argue that neurodiversity encompasses all specific learning differences, many of which may co-occur or overlap, so, individuals may experience the strengths and challenges associated with more than one specific type. This places greater value on understanding the autistic person, not 'pathologizing' autism. The concept of neurodiversity has broadened since the early days of Singer (1998), with increased research on the diverse ways the brain works and interprets information; the range of differences in individual brain function and behavioural traits of autistic pupils; and how people naturally think about things differently because they have different interests and motivations. The term 'neurodiversity' stems from the need to understand an alternative to the 'pathological, deficit-oriented' view of autism (Armstrong, 2017, pp. 43−46). Armstrong advocates a positive understanding of autism that counters the deep-rooted, 'deficit' rhetoric portraying autism as a problem that needs a 'cure'. This supports the direction of this research because it promotes an alternative way to view autism while acknowledging that there are challenges that autistic pupils face daily. Armstrong (2017, pp. 43−46) contends that using 'neurodiversity' helps to highlight the typical strengths of the autistic person while acknowledging the challenges they face. It recognises that cognitive variation, as part of biodiversity, is something beneficial and a viable concept that sees value in different mindsets and ways to interpret information (Leadbitter, 2021, p. 883).

Milton (2019, pp. 3−5), affirms that 'neurodiversity' demonstrates a more profound and authentic understanding of autism and highlights the impact of the normalisation of the description of autism as a 'deficit' on the mental health of autistic pupils. Milton (2019, pp. 3−5) highlights how the voice of the autistic person is absent from a growing library of studies on the subject. Milton (2012) dismisses the claim that autistic pupils cannot understand their own minds. However, the neurodiversity concept is not universally accepted. There are recognised flaws in the way autism is presented without the reality of the challenges the pupils face daily, and Happe and Frith (2020) highlight how we could be in danger of sanitising the complexity of autism − excluding the significant lingual, intellectual and behavioural challenges faced by such pupils.

The perceptions of autism and attitudes towards autistic pupils of beginner teachers are one of the central discussions in this thesis. Autistic pupils and the teachers who support them are interconnected with how theories can portray autism, highlighting the struggles as well as the strengths of autism. The literature explored in this section of the chapter highlights the evolution of the thinking and understanding of autism over time. There is an implied shift towards a more positive, strengths-based approach that recognises autistic pupils as individuals and autism as a life-long condition.

2.5 Supporting beginner teachers to understand how autism is manifested in autistic pupils

School environments are critical in the educational and social development of autistic pupils, and beginner teachers are centrally positioned to support them. How autism is manifested in autistic pupils in mainstream schools determines the types of tailored support offered to autistic pupils to overcome the challenges. Specialist provisions and experienced teaching practitioners can display elevated levels of knowledge and understanding of issues surrounding the education and inclusion of autistic children, yet many schools have not adequately addressed ways to equip teachers new to the profession to provide adapted support for autistic pupils. The manifestation of autism can present a challenge to teachers, neurotypical peers and the autistic pupils themselves. As the number of pupils with autism who receive their education in mainstream schools in England increases, beginner teachers need support themselves to understand the complexity of autism and how to support autistic pupils.

Social interaction is one of the core challenges that autistic pupils encounter in mainstream schools. Humphrey and Hebron (2015, pp. 22−32) observe that autistic pupils can experience difficulties relating to, and playing with, neurotypical peers, which affects their interpersonal relationships. Autistic social awkwardness presents in numerous ways in school; for example, such children may prefer to play alone, choose not to respond to their name being called and/or be unable to handle certain forms of contact (Humphrey and Hebron, 2015, pp. 22−32). Many autistic pupils are seen to face peer rejection, which negatively impacts self-esteem, increasing the likelihood of future rejection and creating additional barriers to engagement. This experience of social interaction, a key issue for

autistic pupils, can lead to mental health issues (Humphrey and Hebron, 2015, pp. 22−32). Thus, their challenges manifest, most commonly, in the context of interactions with peers and specific sensory aspects of the school environment, contributing to students' reported feelings of being 'different' in a negative sense.

Negativity and poor perception from teachers and peers have profound effects on autistic pupils. Wood (2019) found that teachers recognise that autistic pupils are negatively affected by social encounters with others in the school environment. From this, one might infer that mainstream school environments often serve to increase or intensify the negative sense of being 'different' for autistic pupils, exacerbating an already weakened sense of self-worth and any mental health problems. This study explores ideas for how beginner teachers might play an active role in supporting autistic pupils to cope with life in mainstream schools.

Autism manifestation can vary, and Williams *et al.* (2017, pp. 3−14) argue that mainstream schools have a duty to provide consistent support for autistic pupils by ensuring that beginner teachers enter the profession with the confidence and competence to adapt to their needs. They suggest that autistic pupils may have difficulty communicating what they want, adopting, for example, rocking or other repeated movements that are not always easy to interpret. They also assert that their neurotypically developing peers may respond negatively to how autistic pupils express themselves and/or become baffled by their autistic peers' struggles to read their emotions or sense of humour in a conversation. Williams *et al.* (2017, pp. 13−14) observe that this broad lack of understanding of how autism can manifest can result in message misinterpretation. Examples of how autistic pupils sometimes behave include self-soothing activities (Marsh *et al.*, 2013) such as 'stimming' – repetitive speaking of words or short phrases; head flapping; twitching eyelids and twirling and spinning in circles, all of which may be misinterpreted as behaviour challenges instead of forms of communication. They suggest that schools should provide teachers with training on coping strategies that pupils can use if distressed or anxious when misunderstood by peers. They propose that when teachers are equipped with a proper understanding of autism, their competence to educate neurotypical pupils will be much enhanced.

Wood (2019) joins the growing number of experts who argue that teachers' negative perceptions of autistic behaviours result from a lack of understanding of

autism; that 'being different can be challenging and isolating'; and that a school's culture impacts how autistic pupils experience life in mainstream schools. She suggests that simply understanding autistic pupils better could change the culture of the school in a way that would help, rather than hinder, autistic pupils' ability to cope with everyday life in mainstream environments.

There are marked differences between behaviour challenges and the way autistic pupils manifest autism. However, behaviour represents a high proportion of the difficulties autistic pupils exhibit in mainstream schools. Gavin (2021, pp. 17−19) found that many autistic pupils are socially and emotionally excluded at school, which raises serious concerns about the risk of their developing low self-esteem and mental health problems. Teachers must be equipped to distinguish between behaviour challenges and manifestation of autism. For example, autistic pupils can become frustrated by their difficulties with language and communication, and many struggle with multi-layered instructions. Reactions to these two examples are behaviour challenges deriving from frustration. Accessibility to the school environment is not always complete for autistic pupils, from navigating the playground and school hallways to teaching and learning that is not adjusted to meet their needs (Gavin, 2021, pp. 17−19). The physical school environment can present extensive challenges to many autistic pupils. However, beginner teachers must be equipped to distinguish between the way autism is manifested by pupils and behaviour challenges exhibited by pupils in schools.

2.6 Action research – an approach to teacher learning

This section focuses on action research as an approach to teacher learning. Literature on how action research has been used as a model to enhance the learning process is explored to gain insight ahead of this study's employment of the model. This enquiry reveals that action research methodology is being used increasingly in education and that for this study, it is a relevant and appropriate research method.

Action research methodology has long been associated with the psychologist, Kurt Lewin (1946), whose change management model included three stages needed to make change successful. Action research is more commonly defined as a process of systematic inquiry that seeks to improve social issues affecting the lives of everyday people (Bogdan and Bilken, 1992; Lewin, 1938; 1946;

Stringer, 2008). It is a highly flexible and responsive research method used successfully by many experts in the field. Kemmis and McTaggart, for example, viewed action research as a collaborative process carried out by people with shared concerns or problems (1988, p. 6). In education, action research provides a framework for studying a school situation to understand and improve the quality of teaching and learning, according to McTaggart (1997), who adds that action research helps teachers to develop their classroom practice, pedagogical knowledge and reflective teaching. Hine (2013) argues that action research is an attractive option for teacher researchers (p. 2) and insists that 'there is clear evidence to suggest that action research is a valuable exercise for teachers to undertake as a solution-based focus that provides teachers with the technical skills and specialised knowledge needed to effect positive change in the classroom'. Hine recommends that universities include action research as a core topic in their teacher preparation programmes and lists four points as criteria for selecting it as a methodology, being 'time', 'scope', 'scheduling' and 'small scale' (pp. 160−161). This study was certainly time-constrained by timetable and scheduling clashes. It was also small in scale, with only eight participants across two schools, and had a specific and limited (but important) scope of study.

McNiff and Whitehead (2004) define action research as a method of systematic enquiry that educators and others undertake, as professionals, to understand problems in their institutions and embark on problem-solving or improvement. Experts in the field agree that action research is valuable to the education community (Johnson, 2012; Stringer, 2008; Kemmis and McTaggart, 1988). Furthermore, action research offers all teachers a workable format with which to improve their skills and knowledge and effect positive change in their classrooms and across schools (Johnson, 2012; Stringer, 2008). Kemmis and McTaggart (1988) view action research as a collaborative process carried out by those with a shared concern. It supports actions that ensure justice in social and educational practices (Kemmis and McTaggart, p. 6). Maxwell (2016) based his research on the model developed by Kemmis and McTaggart (1988), adjusting it to suit his context. He argues that the flexible nature of action research creates reflexivity, which is an important part of the model. In an earlier study, Grundy (1995, p. 9) found that action research can be tailored for improvement in specific situations. He states that the entire purpose of action research is improvement (and in this,

there is general agreement across the literature). He also claims that educational institutions welcome the small-scale, manageable and localised nature of action research in improving practices by investigating and supporting teachers to implement change in classrooms.

This literature review has highlighted the benefits of teachers' engagement with action research projects as a model for identifying a problem in an institution, understanding and deciding on the best approach after observing, looking at what other researchers in the field have found, and then taking the most effective actions that can be tailored to the context or locality. 'Action research can bridge the gap between research and practice, by highlighting the theoretical components that underpin practice to help teachers observe and understand what is happening in a classroom' (Hine, 2013, p. 153). Conversely, the literature also shows that although action research is popular and suitable for school-based research, the small-scale, localised nature of it means findings are not generalisable because the sample size is often *too* small and *too* localised. The use of action research signals a departure from traditional research methods and a direction of travel towards more flexible approaches for informal learning in an increasingly diverse educational landscape. There is still scope for comparing the benefits with the drawbacks of action research and a more detailed critical overview is discussed in Chapter 4.

2.7 Conclusion

This chapter contains an in-depth exploration of selected existing literature on autism and engages with current debates. Through this review, beginner teachers' understanding of autism and the challenges faced by autistic pupils were explored. This chapter examines how a lack of understanding of autism fuels beginner teachers' negative perceptions of the condition and interrogates the growing number of studies finding that teachers need more explicit training on autism. It highlights the negative impacts of the 'deficit' model of autism as a diagnosis and explores theories of autism that contribute to how autism is perceived. It demonstrates how the diagnostic tools may be flawed due to the 'labels' they inevitably generate that can have negative effects on those diagnosed with autism. Investigating the most influential theories shaping the way autism is viewed today, one can detect a shift from the 'deficit' to a 'strengths-

based' approach. Yet, autistic pupils continue to face daily challenges in mainstream schools in England, with little change in schools' policies or activities for supporting their autistic pupils. Relevant literature examines why schools do not seek alternative ways to support the pupils, concurring with an important premise of this research, the need to explore beginner teachers' understanding and perceptions of autism and find a way to address the shortcomings, misconceptions and negative impacts on autistic children. Literature is also explored on how autistic pupils are already supported in school.

The conclusions drawn from this review illuminate the motivations for this research journey. The gaps in the literature that emerge (for example, the need to provide training that equips beginner teachers for inclusive practice) provide a basis for further investigation and the design of this study. A brief review of the literature on action research as a methodology for not just exploring, but in real terms, improving approaches to autistic pupils, helps to rationalise the training intervention that formed the backbone of the data gathering for this research. The themes that begin to coalesce through this exploration of the literature help to consolidate the research questions, forming a link to the next chapter on how autistic pupils might be better included in mainstream educational settings by equipping beginner teachers for inclusive practice.

Chapter 3: Equipping beginner teachers for inclusive practice – a literature review

3.1 Introduction

The review of literature in Chapter 2 establishes that a poor understanding of autism is prevalent among beginner teachers and that this can fuel negative perceptions of the condition. It also demonstrates that beginner teachers often have poor attitudes towards autistic pupils, which can hinder their confidence in their ability to include autistic pupils in their classrooms.

Continuing the review of relevant literature, this chapter explores the extent to which beginner teachers are equipped for inclusive practice in mainstream schools in England. It looks at what constitutes inclusive practice and offers insights into what it means to include children with autism in mainstream education. This review interrogates how beginner teachers perceive their role in the inclusion of autistic pupils in mainstream classrooms and investigates the difficulties they encounter in their efforts to do so. It also asks how the issues they face influence their perception of inclusion. Previous studies that examine how policy informs practice in education (including the most recent changes made to and Early Career Teaching (ECT) in England) provide insights on the implications for this study of not implementing inclusion and ITE policies.

Literature is reviewed on the impact of beginner teachers' exposure to autistic pupils in special resource provisions (SRPs) for autism in mainstream schools, and there is a look at the extent to which beginner teachers are provided with opportunities to understand autistic pupils through training in a mainstream context. The conceptual framework of this thesis will be outlined at the end of this chapter, drawing together the development of the theories extracted from literature across Chapters 2 and 3 to formulate how this study is designed and conducted.

3.2 What is inclusive practice?

Inclusive practice has been defined in many ways depending on the lens through which it is being viewed. In this section, studies are examined to provide insights into what constitutes inclusive practice and what it means to have inclusion

integrated in mainstream provision. First, a clear explanation of inclusion is sought through studies that have attempted to shed light on what it means to have fully integrated inclusion and why it is crucial for beginner teachers to have clarity on this.

The body of literature on inclusion is growing fast and, therefore, remains a contested construct because of the many forms it can take. Rouse (2017) suggests that inclusive education should mean that students with disabilities are educated alongside their peers in a mainstream classroom for much of the school day. However, she blames the lack of a universally agreed definition of inclusion for the complexity associated with the term, saying that there is a lack of clarity on the fundamental definition of inclusion. She states that inclusion requires teachers to accept responsibility for all children by creating schools in which they all feel they belong. Booth and Ainscow (2011) define inclusion as increasing participation for all, and reducing exclusion, discrimination and barriers to learning. Booth (2011) summarises inclusive practice as putting inclusive values into action by supporting and increasing the feeling of belonging. They offer a set of principles suggesting that genuinely inclusive practice might mean overhauling the cultures and policies of the school.

There is international legislation for inclusive education which includes the Committee on the Rights of Persons with Disabilities (United Nations, 2016) that defines inclusion as a fundamental right to education; and inclusive practice as a continuing process that eliminates barriers to education and promotes reform in school culture. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) (2017) suggests that achieving inclusive education requires a continuous process of educational transformation and a clear set of equity indicators. The European Agency for Special Needs and Inclusive Education (EASNIE) (2018) suggests that inclusive education increases social and academic opportunities for children with, and without, disabilities. The concept of inclusion is inherently complex because of the local, national and international perspectives from which it is viewed. Each standpoint can be implemented in schools as a rights-based model of inclusion.

There are legislative models of inclusion that apply to equality, diversity and inclusion, such as the Equality Act 2010 and the Human Rights Act 1998, which are enshrined in UK law. The implementation of inclusion policies remains a

concern for The Education Select Committee (ESC) (2019, pp. 17−20) who found that teachers were not getting the support intended by legislation such as the Special Educational Needs and Disabilities (SEND) Code of Practice (2015) and the Equality Act (2010). They contend that there is a need for better coordinated and improved implementation of government legislation and suggest that SEND pupils are let down by failures in the implementation of policies. They state that implementation has been significantly hampered by a challenging funding environment (2015). The Education Select Committee (ESC) (2019, pp. 17−20) also highlights the tension between the child's needs and the provision available, and a significant failure on the part of all involved to deliver on the SEND reforms and meet children's needs (2019). They report a general lack of accountability within the system and they point out that as the number of children diagnosed with SEND increases, pressure on teachers also rises and they need training and support. The Committee maintains that the SEND Code of Practice (2015) requires all schools to provide 'quality first teaching', however, there is no clear description of this. The Code of Practice states that 'high quality teaching, differentiated for individual pupils, is the first step in responding to pupils who have, or may have, SEN' (2015, pp. 3−15). There is an implied notion that the Equality Act 2010 and the are fundamental to the conceptualisation of inclusion in schools, and it is the direct responsibility of ITE and schools to ensure that beginner teachers are thoroughly trained in relevant legislation as part of equipping them for inclusive practice.

Inclusive practice exists in many forms, such as, for example, through providing equal opportunities, yet, however it manifests, Florian (2014) argues that effective inclusive education significantly increases the chances of children with disabilities to enrol in higher education, leading to better employment and life outcomes. Clearly, inclusion can create opportunities that would not be there otherwise. Conversely, where autistic pupils are not satisfactorily included in secondary education, barriers to higher education can be the outcome. Implementing inclusion can transform practice as well as the culture in schools. Schuelka (2018) concludes that inclusive practice is a way to identify, understand and break down barriers to learning for SEND students and adds that effective inclusive practice recognises that every child is unique while enabling equal opportunities and access in the classroom. This is significant because it implies that successful

inclusive practice requires school transformation and a fundamental system change. In addition, Schuelka (2018) suggests that inclusive education assumes that all children have the right to be in the same educational space and to be given equal access to quality education. Perhaps, according to this perspective, inclusive education means that all children are educated together in mainstream classrooms because while inclusion recognises the differences between pupils, it ensures that all pupils can participate fully.

Educating all children under one roof can be daunting for beginner teachers leading to doubts about their own ability to provide inclusion, particularly, when they lack the training and support required. Chamberlain *et al*. (2017) find that teachers are sceptical about the possibility of providing autistic pupils with inclusive support. They report that teachers do not feel supported or ready for inclusive practice and recommend that teachers be provided with as many strategies as possible to help them become more effective in including and supporting autistic pupils (p. 43). Without training, the possibility of achieving inclusion diminishes because it is difficult to implement. However, Rouse (2017) claims, inversely, that inclusive practice is only hard to implement because teachers do not feel sufficiently trained. Either way, more complete training in how to achieve it would break down the barriers that SEND pupils can face in their education.

There is evidence to support that training positively affects teachers' attitudes towards inclusion by emphasising that it is within their professional role to include all children in their classroom and is not just the domain of specialists or special curriculum. (Forlin and Chambers, 2011; Graham and Scott, 2016; Sharma *et al*., 2015; Subban and Mahlo, 2017) agree that teachers can be motivated to be more inclusive by providing more structured and supported CPD on what inclusive education 'looks like' in the classroom and strategies for how to achieve it. They all agree that equipping beginner teachers for inclusive practice involves understanding the importance of integrating autistic pupils into mainstream classrooms by providing a fully inclusive environment.

There are links between the many ways inclusion is viewed and the complexity associated with the concept. Questions could be raised about the possibility of delivering inclusion without the insight through training. Booth and Ainscow (2011, pp. 2−24) advocate training and support for all teachers, not just

'specialised' teachers, to enact an inclusive vision for schools, contending that inclusive practice is a continuous process, not an issue to be 'fixed' – one that requires continuous evaluation and critical examination of school systems. They report that teachers often feel that inclusive education is something they are told to do, often without adequate support or meaningful resources, and it presents as a top-down burden rather than a collaborative process. They insist that successful inclusion only occurs when teachers are fully engaged and that training in inclusive techniques means workshops and other continuous professional development (CPD) for teachers. Though, one-off, short-term, 'parachute' training is inadequate because it would not lead to systemic change. They argue for more sustainable inclusive education training and implementation that puts an emphasis on inclusive pedagogy in pre-service teacher training, as well as sustained and continuous in-service development.

Many studies have explored the most appropriate approach to inclusive practice, yet a lack of understanding persists. Forlin, Loreman and Sharma (2014) report that failure to implement policy means that barriers to inclusion remain in place, adding that inadequate teacher training in inclusive thinking, passive pedagogical techniques and rigid curricula that offer no adaptation and cultural attitudes all contribute to those barriers. Some common components of successful inclusive practice implementation are policies that promote high outcomes for all students; an accommodative curriculum; strong and supportive school leadership; and equitable distribution of resources and teachers who are trained in inclusive pedagogy and view it as their role to teach all learners in a diverse classroom.

3.3 Beginner teachers' perceptions of inclusion

The way beginner teachers perceive their role in the inclusion of autistic pupils in mainstream classrooms is important to implementing inclusive classrooms that meet the needs of autistic children. Literature highlights some of the difficulties beginner teachers encounter in the process of including autistic pupils and how this influences their perception of inclusion.

Given that teachers have direct responsibility for implementing inclusion practices in mainstream classrooms in England, Farrell *et al*. (2007, pp. 131−145) contend that this impacts teachers' confidence to deliver support to pupils. They find that teachers broadly support inclusion as a desired practice, but they lack the training

and resources to educate autistic pupils. This creates and contributes to the tension and anxiety teachers feel. This impacts how teachers' perceptions of their ability to include children with autism are shaped. Farrell *et al.* (2007) claim that sometimes these tensions dominate the relationship and add to the perception of inadequacy and lack of confidence. They suggest that this tension feeds a negative mindset and impacts their confidence in their ability to include the children (socially and academically) in mainstream classrooms.

A teacher's perception of inclusion is critical for its success or failure. Farrell *et al.* (2007, pp. 131−145) recommend that teachers must be adequately trained and equipped to deal with both the academic and social-emotional inclusion of children to reduce negative perceptions of inclusion and increase teacher confidence. Humphrey and Symes (2010, pp. 32−46) agree that schools should have structured staff training to help teachers understand the cognitive and sensory characteristics of autism, thus aiding inclusion. There is an assumption that negativity is linked to lack of training, therefore, training will reduce negativity and increase confidence.

There is a notion that training can support change in attitude to wards autistic pupils. For example, Hoon *et al.* (2020, pp. 15−32) find that providing pre-service teachers with experience in working with autistic pupils is essential to successful teacher preparation. They used structural equation modelling to identify the factors affecting pre-service teachers' attitudes towards the use of inclusive settings for autistic pupils. The results indicate that, while their coursework influenced attitudes toward full inclusion both directly and indirectly, it had no effect on their perceptions of partial inclusion and self-contained classroom settings. Pre-service teachers' beliefs about special education exerted a mediation effect between special education coursework and full inclusion. Similarly, pre-service teacher attitudes towards students with autism presented a mediation effect between field experience and inclusion. If the assumption is that mediation works and that perceptions changes through engagement in learning and training, this suggests a link between engaging in training and confidence.

A UK-based study found that only five per cent of teachers received training about autism, even though most teachers had an autistic pupil in their class (Lindsay *et al.*, 2013, pp. 347−362). Such gaps in training can leave teachers feeling discouraged while students with autism miss opportunities to reach their full

potential. Given the social and behavioural challenges of some autistic pupils, teachers often face considerable obstacles in appropriately managing their needs. Lindsay *et al.* (2013, pp. 347−362), find that many teachers feel unprepared to support students with autistic pupils socially, academically or behaviourally. Indeed, one of the most important challenges in working with autistic pupils in integrated classrooms is inadequate knowledge about autistic pupils and support (De Boer and Simpson, 2003, pp. 116−133). Training and support are important to ensure beginner teachers can cope with the demands of teaching in a rapidly changing landscape. Leonard and Smyth (2022) support the argument that while beginner teachers' perceptions of inclusion influence their views of what helps or hinders their preparedness for the profession, they may also influence how they build resilience to deal with struggles they encounter on entry into the profession.

Beginner teachers' perception of their role in the inclusion of autistic pupils in mainstream classrooms is crucial to implementing inclusive classrooms. Studies highlighted some of the difficulties beginner teachers confront in the process of including autistic pupils and how this impacts their perception of inclusion. Although the responsibility for implementing inclusion practices in mainstream classrooms in England falls primarily on teachers, they lack the belief and confidence to deliver support to pupils. Teachers lack the training and resources to educate autistic pupils, and this impacts how their perceptions of their ability to include children with autism are shaped. There is an assumption that negativity is linked to lack of training, therefore, training will reduce negativity and increase confidence.

3.4 Preparing beginner teachers for inclusive practice through training

This study endeavours to understand how teachers are prepared for inclusive practice in mainstream schools in England. A review of relevant literature reveals that inclusive practice is widely held to be a vital topic for teacher education, yet the research shows that this view is not reflected in Initial Teacher Education (ITE), training placement or school induction practice. Indeed, the Initial Teacher Education (ITE) themes of 'content', 'subject knowledge', 'pedagogy' and 'professionalism' fail to ensure coverage of inclusive practice as a topic. For

example, Mittler (2005) declares that 'ensuring that new teachers have a basic understanding of inclusive teaching is the best investment that can be made' (p. 137) but Cook (2002) finds that most pre-service teachers do not possess the knowledge and skills to implement inclusion appropriately, reporting that 'the students with disabilities in their future classes will certainly have diminished opportunities to attain desired outcomes' (p. 263). These examples form a continuum of agreement that discrete teacher training in strategies for inclusion will have a positive impact on outcomes for SEN pupils.

Undoubtedly, Initial Teacher Education (ITE) has a vital role in educating the teaching workforce in England and yet, teachers continue to feel ill-equipped when they begin their profession. Expert voices have questioned the impact of Initial Teacher Education (ITE) on teacher development. For example, McNamara *et al.* (2017, pp. 69−72) suggest that the 'deficit' view of autism held by so many beginner teachers, and their consequent pedagogies for teaching such pupils, stem from the low priority placed on understanding autism at Initial Teacher Education (ITE). They add that this is coupled with ineffective policy implementation in schools. Crucially, McNamara and Murray report that though placements and mentoring allow trainees to observe good practice, this rarely includes teaching SEND pupils (2015). Ravet (2018) also questions how equipped teachers are after teacher training, stating that under UK legislation, training should equip teachers to address the needs of all pupils, including those with autism. She used online questionnaires and focus groups to gather views and found that her participants had some basic awareness of autism, but little knowledge or understanding of related teaching strategies. Avramidis *et al.* (2017) criticise universities for their slow reform regarding inclusion and recommend speeding up the progress towards amalgamating theoretical and practical training into Initial Teacher Education (ITE) syllabus. They suggest that without sound and relevant knowledge, accompanied by positive attitudes and dispositions towards inclusion, teachers are unlikely to engage in the development of inclusive practices. They argue that little consideration has been given at Initial Teacher Education (ITE), or at school level, to how changes can be managed or how the fallout might be mitigated. They report that teachers are left feeling disillusioned, with some quitting the profession because they feel ill-prepared to perform their professional duties.

School induction is an essential part of equipping beginner teachers for inclusive practice. Winter (2004, p. 4) declared that the first year in the profession is crucial and schools must take every care to train and support teachers as they navigate the most challenging year of their professional career. Winter (2004) added that there should be a clear expectation of on-going development beyond Initial Teacher Education (ITE) , and – focusing on inclusion − that trainees should learn how to work with a range of colleagues, other professionals, parents and carers to support children with SEND. In conceptualising how beginner teachers can be equipped for inclusive practice, studies find that schools fail in the role of supporting teachers at this critical point in their careers. Malinen (2012) argues that because teaching is so fundamental to society, teacher education should focus on the preparation and development of competencies through knowledge building, skills, attitudes, beliefs, values, efficacies and characteristics, to empower teachers to act professionally and competently, particularly regarding inclusion.

Continuous Professional Development (CPD) in schools also has a prominent place in developing beginner teachers for inclusive practice, particularly in their first year of teaching. The Department for Education (DfE) (2016) states that continuous professional development develops teachers' knowledge and wider expertise and Pedder and Opfer (2010) offer that professional development meets the wider needs of the teachers who engage with it positively. However, McNamara (2015) observes a poor approach to equipping teachers, with beginner teachers reporting that their training needs were low in their schools' priorities. The perspective shared assumes that continuous professional development should prioritise beginner teachers' training needs.

Beyond the above key points, this study examines how government policy informs practice to shape how teachers are trained and equipped for the profession. It looks at the implications of the most recent changes made to the ITE and ECT frameworks that occurred after the data was collected for this research. The Early Career Framework (ECF) (2019), put into practice in September 2021, addresses some of the concerns raised in the studies referred to in the literature reviews, though, in most cases, it is too early to measure the impact on beginner teachers. While the intention shows travel in the right direction, too much still depends on effective implementation and this means

some of the problems raised persist. The new Education Career Framework (ECF, 2019) states that 'Teachers are the foundation of the education system – there are no great schools without great teachers, they deserve high quality support throughout their careers, particularly in those first years of teaching when the learning curve is steepest' (2019, p. 4). There is an acknowledgment that teachers in the first years of their career require high quality, structured support to begin the journey towards becoming experts. The framework makes clear that during induction, it is essential that early career teachers can develop the knowledge, practices and working habits that set them up for a fulfilling and successful career in teaching. However, concerns about implementation of policies show few signs of being allayed despite the guidelines provided in the new Education Career Framework (ECF, 2019), which highlight the need for adaptive teaching to meet the needs of SEND pupils (p. 17). It transpires that although the Education Career Framework (ECF, 2019) lists what new teachers should 'learn how to do' they remain unclear on how schools will facilitate the expert, hands-on experience called for in the studies and recommended as a priority for the participants.

The Education Career Framework (ECF, 2019) recommends that new teachers work closely with Special Educational Needs Coordinators (SENCOs), but that this should be at the 'discretion of the school or provider' (2019, p. 17). The framework was designed around how to support all pupils to succeed, seeking to widen access for all, including those pupils identified within the four areas of need. The content of the Education Career Framework (ECF, 2019) is intended to build upon and complement ITE. It outlines what all beginner teachers are entitled to learn how to do, based on expert guidance and the best available research evidence. It states that as is the case for other professions, areas covered in initial training will be expanded in greater depth as part of induction as teachers continue their journey to becoming experts (ECF, 2019, p. 5). It remains to be seen how much of these intentions materialise in practice.

Through the Education Career Framework (ECF, 2019), the government have committed to funding and guaranteeing five per cent off-timetable in the second year of teaching for all beginner teachers, who will continue to have a ten per cent timetable reduction in their first year of induction. However, this review explored the extent to which these have been achieved and the reasons why

some of the problems identified through this review persist. The framework has seven standards, broken down into 'what beginner teachers will learn to do' and 'how'. Section 3.5 addresses the use of adaptive teaching in line with the SEND Code of Practice (2015), underpinned by the studies by Florian *et al*. (2004). This provides additional guidance. The roll-out phase should ensure it meets the needs of beginner teachers and enables them to enjoy a successful start in the profession (p. 6). The ECF (2019, p. 8) proposes that beginner teachers are helped to understand that pupils are likely to learn at different rates and to require diverse levels and types of support from teachers to succeed. Seeking to understand pupils' differences, including their diverse levels of prior knowledge and potential barriers to learning, is an essential part of teaching. Pupils with special educational needs or disabilities are likely to require additional or adapted support. Collaborating closely with colleagues, families and pupils to understand barriers and identify effective strategies is mandatory. Through effective induction, the Education Career Framework (ECF, 2019) proposes that teachers can learn to develop an understanding of different pupil needs by identifying pupils and working closely with the Special Educational Needs Coordinator (SENCO) and other special education professionals (such as the designated safeguarding lead). For this, the provides additional guidance (2015, p. 17).

In June 2022, the Office for Standards in Education (Ofsted) investigated how ITE had moved on since the introduction of the new framework. They conducted remote visits of 70 ITE partnerships – a third of the sector − and found that trainees felt supported emotionally, but a lack of curriculum ambition persisted, because very few had gone beyond 'incorporating the minimum statutory curriculum entitlement' (p. 2). They found pre-placement training to be inadequate in some areas.

In summary, the assumption that teacher training adequately prepares beginner teachers for inclusive practice remains under question. Literature shows that despite ITE's vital role in educating the teaching workforce in England, it has fallen short of expectations because beginner teachers continue to feel ill-equipped for teaching; teachers understand little about their own subject-specific pedagogy and have a poor set of strategies. Neither have school inductions achieved the aims of equipping beginner teachers for inclusive practice as they have not provided the support teachers need at the crucial points. It is too soon

to measure the impact of the recently implemented ECF (2019) but clearly, some of the problems raised continue to persist.

3.5 Special Resource Provisions

There are claims that SRPs for autism are often models of good practice and might be regarded as a valuable resource for developing beginner teachers' understanding of inclusive practice (Parson, 2020). However, the SRPs for autism are contested in mainstream schools in England and this thesis looks at this debate. A study is made of the impact of beginner teachers' exposure to autistic pupils in SRPs for autism, including questions on the extent to which they are provided with opportunities to understand autistic pupils through in-school training in a mainstream context.

Literature has questioned the effectiveness of schools in providing opportunities for beginner teachers to observe and work alongside experts in inclusion. For example, Ravet (2016, pp. 714−733) found a link between prior exposure and confidence on entry into teaching. She argues that teachers who have been exposed to autistic pupils prior to embarking on teacher training have a better attitude towards autistic children. However, her research also shows that attitude is dependent on the experience of the exposure and understanding of what was observed. There is a suggestion that the longer the exposure to working with autistic pupils, the greater the confidence towards the pupils. In a government-commissioned study, The Carter Review (2015), Recommendation 9 states that special educational needs and disabilities should be included in a framework for ITE content; and Recommendation 10 states that, wherever possible, all ITE partnerships should build in structured and assessed placements for trainees in special schools or mainstream schools with an SRP.

Specialist provisions rely on local agreements led by local authority departments for children and families. Those agreements include giving parents of autistic children the option to integrate them in mainstream schools. SRPs for autism that support and enable them to attend mainstream school typically require a specific entry assessment in addition to the statutory Education and Health Care Plan (EHCP) and assessment for autism.

English SRPs provide targeted support that enables children with SEND to make progress alongside neurotypical peers within a mainstream school using a programme of specialist intervention. They also support SEND pupils in the transition from special schools to mainstream schools. The latter may include additional speech and language or music therapy. Parsons (2020), a professor of autism and inclusion at Southampton University, in England, suggests that SRPs for autism are effective at providing much-needed, targeted, therapeutic support for autistic pupils within mainstream settings more regularly than otherwise available. Parsons argues that resource provision is important for inclusive education because it provides 'the best of both worlds' for children with SEND (2020, pp. 5−13). In some cases, pupils split their time between the SRPs and mainstream school classrooms. In this situation, the SRPs offer a combination of smaller class work within the special provision and socialising opportunities with neurotypical peers in the mainstream classroom. Parsons claims that SRPs can offer flexibility and are valued highly by parents. If the assumption held is that SRPs are beneficial in a mainstream school, it could be a working model for inclusion under one roof. But this is not a widely held view.

The role of SRPs in mainstream schools is contested because it is possible to argue that they can *hinder* the inclusion of children with autism, by removing them from the mainstream classroom, even if it is for part of the day. Fortuna (2016) suggests that autistic children may find mainstream classrooms, or the combination of specialist and mainstream classes, challenging and disruptive, arguing that specialist provisions add to the exclusion and further segregation of children with autism who prefer stability, structure and routine. It is suggested that SRPs offer an unsatisfactory halfway solution, leaving children confused and constantly comparing preferences, while missing out on the true value of mainstreaming, which nurtures endurance and resilience. Parsons *et al*. (2020, pp. 770−789) presents a convincing argument in favour of SRPs, suggesting that they are a model of support for students and staff. Their research suggests that daily movement between mainstream and SRPs are vital for supporting engagement and social opportunities for children with autism, and that SRPs offset the challenges of the time spent in mainstream class by providing a sanctuary, away from the volume and noise.

Hebron and Bond (2017) write that parents and children's perceptions are that resource provisions are increasingly part of the continuum of provision. They claim that SRPs often offer additional environmental adjustments that include a higher ratio of adults to children, and parents are positive about the social inclusion that mainstream schools provide but are often concerned about academic progress (2017, pp. 556−571). Hebron and Bond add that SRPs provide modifications beyond what is normally offered in mainstream schools and can offer more personalised support than mainstream education on its own.

3.6 Conceptual framework

The conceptual framework begins with a set of key assumptions. These are that beginner teachers are not properly equipped for inclusive practice; they have a poor perception of autism that includes misconceptions and negative attitudes towards autistic pupils due to misunderstanding autistic behaviours; they do not understand inclusion and perceive it to be insurmountably complex; they lack strategies to support autistic pupils and have a poor grasp of inclusion law and their legal obligations. The literature has also shown that ITE, school induction and CPD do not adequately prepare them to support autistic pupils in mainstream primary schools in England; and that they do not receive the opportunity to be exposed to an environment that will support their understanding and knowledge of inclusion and its implementation.

This review of literature shows that a combination of factors and influences impact teachers' perceptions of autism and attitudes to inclusion. These, in turn, play a vital role in teachers' beliefs in their professional capability to include autistic pupils in mainstream classrooms. Figure 3.6.1 represents these strands. At the heart of the diagram are the autistic pupils who are not in mainstream schools and beginner teachers who *support* inclusion but are not equipped to support pupils.

Figure 3.6.1 The Conceptual Framework

The factors and influences that impact how beginner teachers are equipped for inclusive practice are interrelated and interlinked. For example, Sanz-Cervera *et al*. (2017, p. 134) found that understanding autism will assist in equipping teachers with strategies to improve their ability to support autistic pupils. The strands that influence understandings of autism and autistic pupils, however, are not included adequately in maintained schools in England. The common threads are beginner teachers' perception of autism and inclusion; the lack of training and support and inability to implement policies.

The evolution of autism theories, the interpretation and most current understanding of autism and 'deficit' labels of autism all impact how teachers perceive autism and their ability to include autistic pupils. This conceptual framework provides a starting point, outlines the research problem and has an influence on both the research and the intervention designs.

The idea that understanding autism increases confidence was acknowledged before this study. Ravet (2015) wrote that perceptions of autism as challengingly complex lead to stress and anxiety among teachers and this study concurred, as participants recalled struggling with the concept of autism as soon as they joined the profession and linked their anxiety to their perceived complexity of the condition. Negative perception was identified as rooted in behaviour concerns. Wood (2019) found that teachers' negative perceptions of autistic behaviours result from a lack of understanding of how autistic pupils express themselves and communicate.

Many researchers in the fields of autism and inclusion find that beginner teachers' attitudes towards autistic pupils are not helped by the descriptions in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013), which tends towards 'deficit' labels. The World Health Organisation (WHO), too, describes autism as a group of complex brain development 'disorders' that is characterised by 'difficulties' and 'deficits' (2019, p. 43). Conversely, Hodge (2016) suggests that labels marginalise children (p. 189), … 'devaluing' them by 'reducing' them with descriptions such as 'disordered', because 'labels are used to expel and exclude autistic pupils as well as shut down supportive voices' (p. 187) and Pellicano (2021, p. 326) also condemns the view of autistic pupils 'having deficits'. The findings of this study support that these descriptions are damaging labels.

The concept of 'inclusion' is challenging to define and many are left mystified and daunted by its perceived complexity. This can become a barrier to achieving inclusion in teaching practice. Rouse (2017) states that the lack of a universally agreed definition of inclusion has led to a kind of defeatism in the face of overwhelming complexity. The conceptual framework for this study takes the position that beginner teachers are not equipped for inclusion because its concept complexity has effectively defeated ITE curriculum designers, who, on the one level, agree that it is important, yet still cannot offer much practical advice or expertise to help teachers realise it. Chamberlain *et al.* (2017) found that teachers are sceptical about the possibility of providing autistic pupils with inclusive support despite the SEND Code of Practice (2015) in England making clear reference to schools removing barriers to give pupils access to the full

curriculum. In addition, Rouse (2017) claims that inclusive practice is hard to implement because teachers do not feel sufficiently equipped.

Implementing inclusion laws and legislations will support beginner teachers as well as autistic pupils. Forlin and Sharma (2014) found that the failure to implement policy means that barriers to inclusion remain in place. The conceptual framework of this study assumes that supporting beginner teachers can start with implementing existing inclusion policies such as the (2015, p. 25) that focus on inclusive practice and removing barriers and that the Equality Act (2010, p. 14) in England sets out a duty to make reasonable adjustments for disabled people.

The conceptual framework assumes that SRPs can contribute to equipping beginner teachers for inclusive practice by providing opportunities for hands-on practical experience that expose them to close working with specialist teachers who work with autistic pupils daily. Parsons *et al.* (2020, pp. 770−789) argue that SRPs are a model of support for students and staff, and that resource provision is important for inclusive education, because it provides the best of both worlds for children. Also, Ravet *et al.* (2016, p. 11) find that beginner teachers require explicit instruction on approaches and interventions that enable them to support autistic children. The conceptual framework generally assumes that beginner teachers need structured training that is sufficient to equip them for including and teaching autistic pupils in their mainstream classrooms.

3.7 Conclusion

The extent to which beginner teachers are equipped for inclusive practice in mainstream schools in England was examined and the factors that influence why they do not feel equipped were explored. National and international laws and legislation for inclusive education were explored to gain insight into processes that eliminate barriers to education and promote reform in school culture. A consensus was sought on what constitutes inclusive practice, how legislation contributes to integration in mainstream schools in England and how policy informs practice. Suitable training must be the highest priority for teachers and a fundamental part of policy implementation (Chamberlain *et al.*, 2017). The impact of insufficient classroom experience on beginner teachers' readiness for inclusive practice was explored and an examination conducted of the routes to understanding autism.

This review shows that ITE and school-based induction does not provide teachers with the theoretical and practical hands-on experience that ensures the inclusion of learners with autism in mainstream classrooms. There are insufficient inputs on inclusion or autism on ITE programmes because, among other things, they remain low in the order of priorities. Although the number of autistic pupils in mainstream classrooms has increased, the support, skills and confidence needed to work with the pupils has not. Teachers lack strategies to support pupils with managing behaviour and socio-structural barriers in mainstream schools. Beyond ITE, school induction and CPD also play crucial roles in equipping beginner teachers for inclusive practice.

The concept of inclusion was found to be inherently complex because of the local, national and international perspectives from which it is viewed. There is a need for better coordinated and improved implementation of government legislation and a suggestion that SEND pupils are let down by failures in the implementation of policies. Sustainable inclusive education training and implementation puts emphasis on inclusive pedagogy in teacher training, as well as sustained and continuous in-service development. How beginner teachers perceive their role in the inclusion of autistic pupils in mainstream classrooms is important to implementing inclusive classrooms that meet the needs of autistic children.

Exploring the role of SRPs in providing schools with the opportunity to train beginner teachers to understand inclusive practice, it was found that they provide targeted support that enables children to make progress alongside neurotypical peers in a mainstream environment, as well as supporting the transition from special schools to mainstream schools (Parsons *et al*., 2020, pp. 770−789). However, some regard SRPs to be aiding further exclusion of children with autism within the mainstream because inclusion should mean removing all barriers. The significant findings and gaps that emerged from the literature examined for this chapter underpin the research design and conceptual framework. The next chapter presents the research methodology.

Chapter 4: Methodology and research design

4.1 Introduction

This chapter explains the methodology and research design for this study, which investigates the perceptions and attitudes of beginner teachers about being equipped to include autistic pupils in mainstream classrooms in England. As a school leader, one of the researcher's goals was to build a reliable framework that would help clarify the factors that influence beginner teachers' preparedness to include pupils with autism in a mainstream classroom. The chapter outlines the research design and justifies the use of action research methodology to assess the effectiveness of a training intervention aimed at preparing beginner teachers to include autistic pupils in mainstream classrooms. The ten-week training intervention combined theoretical understanding of autism theory with hands-on practical experience at a Special Resource Provision (SRP) for autism situated in a mainstream primary school. This study employed action research methodology as a model to effect change (Whitehead *et al*., 2019), complemented by constructivist grounded theory (CGT) as its method (Charmaz, 2002, p. 56) − an approach that is grounded in data that has been systematically collected and analysed.

The chapter starts with a justification for the deployment of action research in this study, detailing the epistemological and ontological assumptions underpinning the methodology. Discussions on the approaches to research include social constructivism, the theoretical framework for this study and constructivist grounded theory (CGT) as a method for data analysis. There is an explanation of the sampling process, followed by an exploration of the implications of researcher positionality, which includes the researcher's declaration. Additional discussion includes ethical conduct, the reflective journal and the rational for the use of a research advisory group. The research methods and the validity and credibility of the research design choices are outlined in each section and a justification is provided for data gathering in three stages. Finally, the choices of data collection methods, mainly semi-structured interviews and a questionnaire to collect contextual information, are explained.

4.2 My approaches to research

A methodological approach was needed that enabled exploration into how beginner teachers might be equipped for inclusive practice, with the flexibility to examine the factors that influenced their perceptions of autism and inclusion and their attitudes towards autistic pupils. The approach needed to be aligned with the researcher's social constructivist standpoint while being an efficient data collection method that enabled fluidity and flexibility, offered in a non-contradictory way. This was effected through aspects of constructivist grounded theory (CGT), a system that allows multiple meanings to be constructed that can be varied, complex and open to categorisation (Charmaz, 2006). Action research was chosen as a methodological approach for this research because it provides an ontological and epistemological fit with the qualitative approach of the research, which is underpinned by aspects of Vygotsky's (1978) social constructivism. Due to its social constructivist nature, the research addresses the processes of interaction among the participants, their experiences and their historical and cultural perspectives.

McNiff (2013) describes action research as the process of people researching their institution to generate theories of practice and adds that it can be used to structure research, from identifying the problem to resolving or improving the situation (p. 4). Whitehead (2019) suggests that the impetus to undertake an action research enquiry usually arises from recognising a problem, developing ideas based on previous experience and enabling individuals to work collaboratively to identify and co-construct knowledge, taking social, cultural and political issues into consideration. McNiff and Whitehead (2006) assert that action research allows sufficient scope for adaptation and adjustment to explore the concepts being examined deeply. These perspectives fit the researcher's aim of developing a framework using action research methodology, which aligns with educational inquiry to address problems identified as a school leader about teachers feeling unequipped to include autistic pupils in mainstream classrooms (see Figure 4.2.1).

In relation to the framework for research referred to in the chapter introduction, the figure below illustrates the action research model cycle – adopted by McNiff and Whitehead (2019) from the original plan, act, reflect, observe designed by Lewin (1946) a framework that guides how research is conducted.
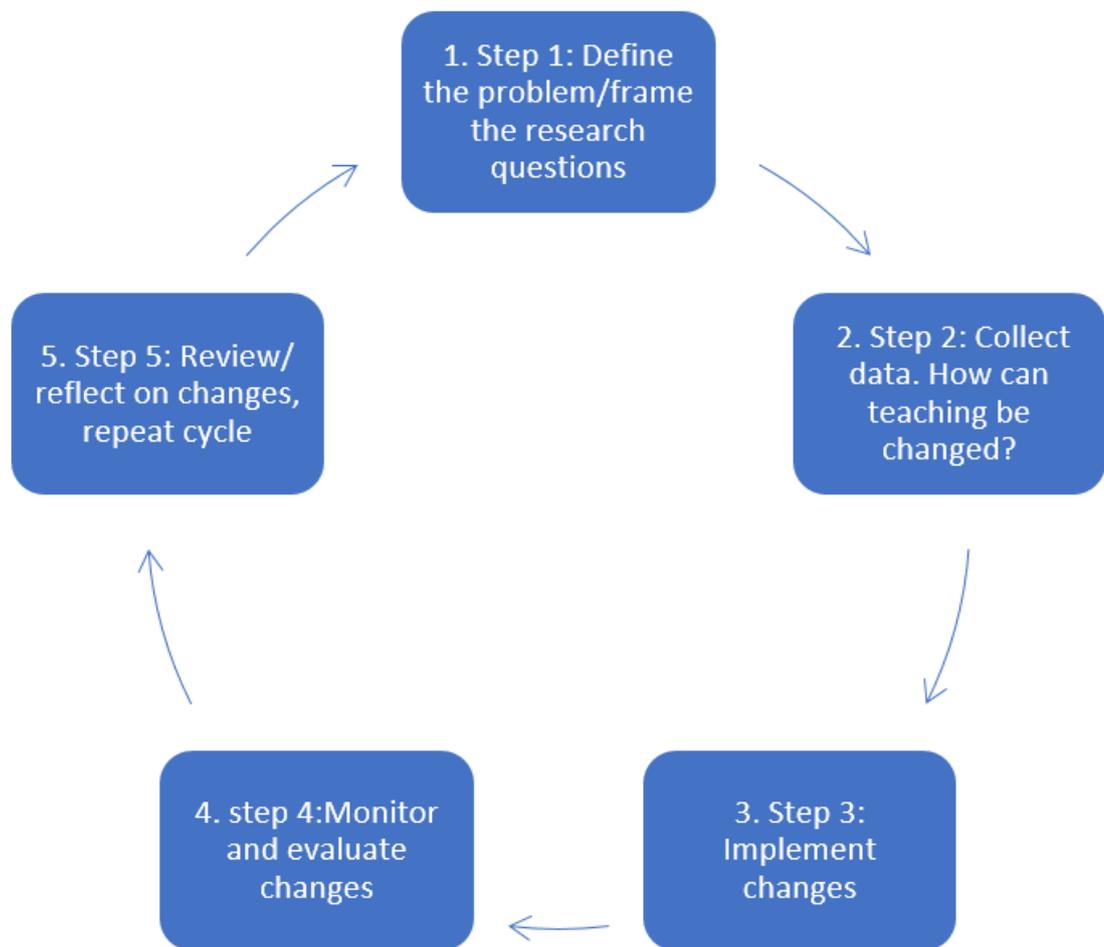
Figure 4.2.1 – The original McNiff and Whitehead (2009) action research cycle

The figure above is an extended model adapted from Lewin's (1946) model which originally had four steps, but McNiff and Whitehead (2009) extended it to suit the context of their own study. With the understanding that action research is flexible and adaptable, it can be applied to meet the needs of any context. Adapting the action research model to explore why beginner teachers have poor perceptions of autism and why they doubt their own ability to include autistic pupils in their classrooms was an option for this study. McNiff and Whitehead (2006) argue that the idea of a living contradiction is in the notion that one can hold specific personal values, yet not realise them in daily practice. Reflection on this added impetus to this study, which seeks to understand what influences beginner teachers' attitudes towards autistic pupils and, using action research as a framework, examines the basis of their perceptions of autism. Action research is an inquiry-based methodological approach that enables institutional problems to be identified and probed to gain greater insights. McNiff (2017) contends that

institutional problems inevitably involve asking, 'How can we improve what we are doing?' Action research was used in this study with the purpose of creating transformative change. However, for an effective shift in practice to be achieved, it was essential to gain some understanding of the experiences and viewpoints of beginner teachers, from which a framework could be developed to create the transformative change.

The training intervention for this study used a phased approach to address the identified problems as part of an action research cycle that is, planning, acting and reviewing actions (McNiff and Whitehead, 2006) that shed light on or improve the identified problems that the research seeks to answer. Step 1 of the adapted cycle was defining the problem and proposing provisional questions after the literature review. Step 2 was the data gathered from the interview before the intervention. Step 3 was the action section, which included the theory training followed by the mid-point interview that contributed to the adjustments made to the design before the practical training at the for autistic pupils. Step 4 was where the final interview was incorporated and evaluated for changes in participants' perceptions towards autism and attitudes towards autistic pupils. This was inclusive of an evaluation of how equipped they were feeling about delivering inclusion.

The methodology chosen for this thesis influenced all aspects of the design of the study. Action research influenced the organisation of the training intervention because it aligns with models of cycles of organising educational inquiry. The McNiff and Whitehead (2009) model, with five steps, as detailed in the previous section, was a starting point for the thesis. The action research training phases meant that data was collected at key points that allowed planning or adjustments to be made before the next action was taken. To probe the identified problem, reference was made to the principles that guide action research. This involved planning a cycle of data collection and actions in three phases: before, during and after the intervention. The model of action research adapted for this study comprises organised sequences with built-in flexibility to adapt to the schools' contexts. Lewin (1946) writes that action research comprises 'planning, acting, observing and reflecting' in a sequence that can be extended and/or repeated. The action research model below reflects the context of the study and it is adapted from the McNiff and Whitehead (2009) model. Two additional steps were

added to the original five steps developed by them to allow additional data collection and reflection. (See Figure 4.2.2).
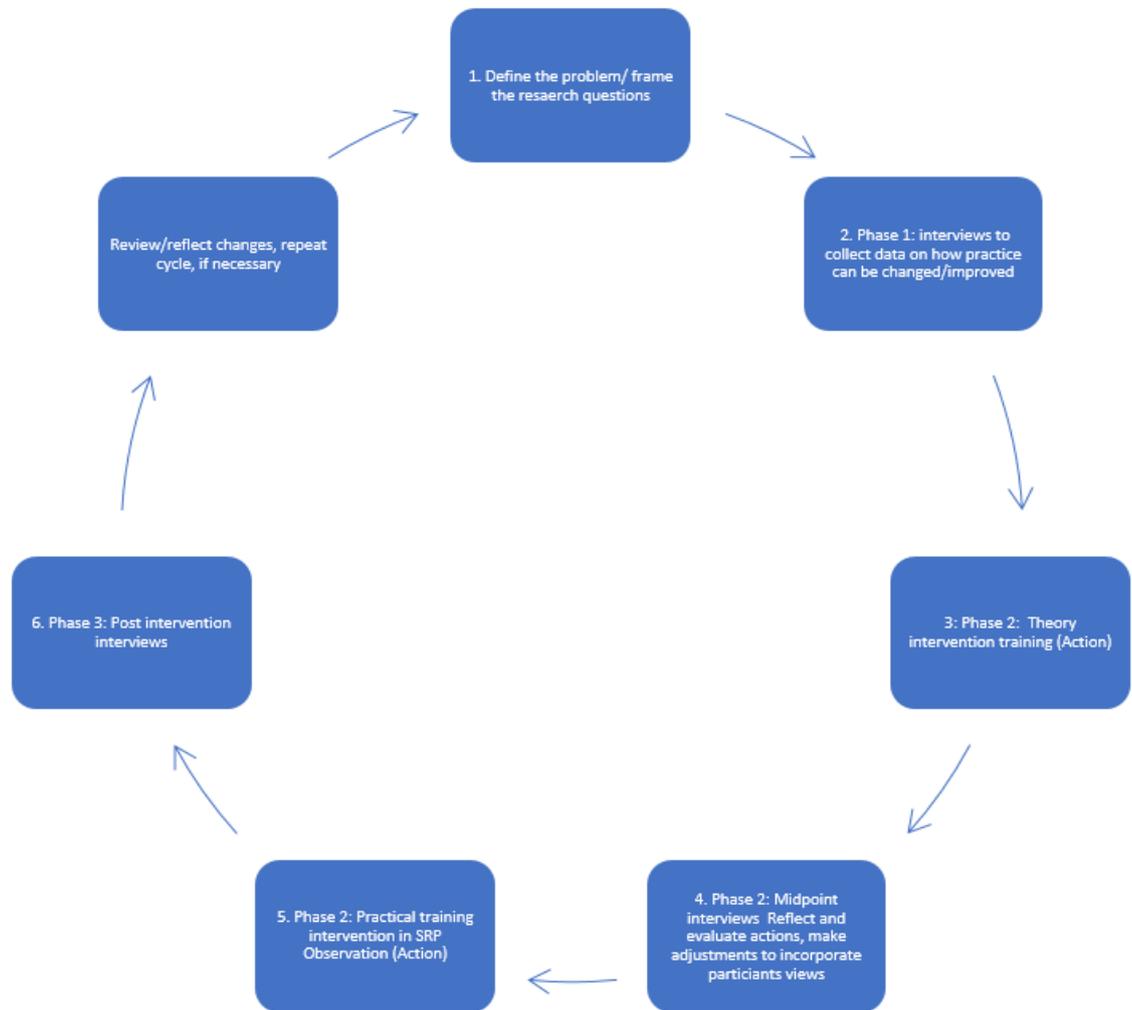
Figure 4.2.2 – My Action Research model adapted from McNiff and Whitehead (2009)

The cycle illustrated above is the researcher's adaptation and extension, which considers the context of the research. The extension provides more pauses and reflection; for example, following the Phase 2 action of delivering theory training to participants, there were Step 4 interviews to reflect upon, evaluative action taken for effectiveness and amendments made to the practical training plans to incorporate participants' views from the interview. Step 5 shows the section of the cycle where the training intervention moves into a practical phase with participants visiting and observing the SRP for autism staff at work with the autistic pupils. This is followed by Step 6, the post-intervention interview that gathers participants' views connecting all the phases. The final step is a review and reflection on the effectiveness of the changes that participants employed in their practice as a result of the process. There is an alignment between this study

and Lewin's (1946) expectations of what action research supports because it provides a phased approach to collecting data, putting in a training intervention and gathering data for analysis. Figure 4.2.3 represents the spiral version of the phases for clarity. This allowed the phased data collection to align with the training intervention.
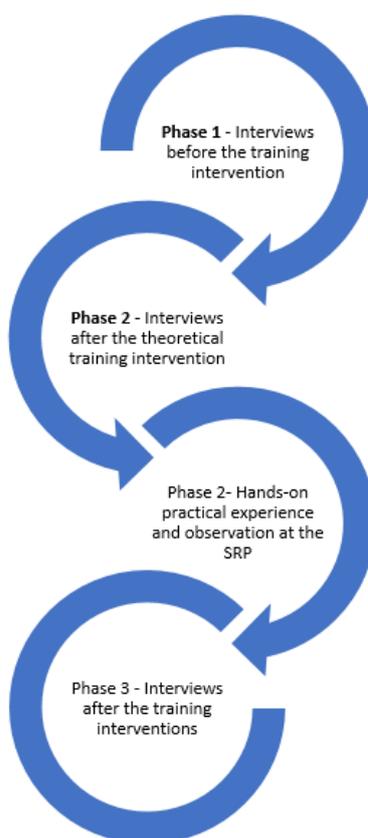
Figure 4.2.3 - Example of the phased approach to data collection

The phased approach illustrated above enabled data collected before the intervention, during the intervention and after the training intervention, which will be discussed in chapter 5. The main limitation to action research is that it is not generalisable; however, the problem identified in this study is institution-specific and localised, though a resolution would be valuable to those institutions. Action research is a demonstrably suitable platform from which to explore factors influencing classroom teaching and learning practices.

4.2.1 My ontological and epistemological perspectives

The methodological approach for any research is underpinned by the ontological and epistemological assumptions of the researcher (Crotty, 1998), which guide

the research design, methodology and methods selected. The ontological stance of any study seeks to subjectively classify and explain claims about the nature of being and the construction of meaningful reality (Crotty, 1998). It is a system of belief that reflects an individual's interpretation of what constitutes a fact. The belief behind the planning of this study, that we might construct reality through the interactive and participatory nature of qualitative methods, is opposed by the positivist viewpoint that knowledge is objective.

Epistemology describes how knowledge is collected and from which source, with regard to method, validity and scope, and the distinction between justified belief and opinion. Crotty 91998) writes that how researchers view the world strongly influences how they interpret data; the researcher's philosophical standpoint, therefore, needs to be declared from the beginning of any study. Thus, this study draws on an interpretivist epistemology, being the study of the nature, origin and limits of human knowledge and how meaning is constructed, who constructs it and the criteria used (Crotty, 1998).

4.2.2 The theoretical framework for this study

Forming the theoretical framework of this research, social constructivism aligns with action research to explore beginner teachers' perceptions of autism and inclusion, and their attitudes towards autistic pupils, as the aim of the study. A social constructivist stance forms the epistemological backbone of this research. The fundamental beliefs of Vygotskian learning theory (1978), in which he argues that participants are crucial to meaning-making and that there can be multiple interpretations of an object, are true for this study, as can be seen in the participants' collaborative exploration of concepts and understanding the concepts from diverse perspectives. Social constructivism aligns with a subjective ontological standpoint and constructivist grounded theory. Social constructivists believe that learning is co-constructed and collaborative (Vygotsky, 1978), that is, that human beings learn from each other. Furthermore, the belief that learners need to be actively involved in knowledge creation (Vygotsky, 1978) makes this approach suitable for carrying out this study of beginner teachers' preparedness. Vygotsky did not subscribe to the rigid views of cognitive constructivism and argued that knowledge emerges through an individual's interactions with the environment in the course of the experience,

leading to constructed and negotiated meaning. This attitude also pervades the approach to this study.

Social constructivism is adaptable to the context of this study from the design of study to the planning of the training intervention that enabled collaboration between participants, working in pairs to debate and discuss concepts, present strategies from the training explored in their classroom practice and reflect on their effectiveness. The participants found that strategies that worked for the children included group and paired work; support structures such as scaffolds that simplified concepts by creating simple steps; modelling; and guided, supportive learning – all strategies that promote inclusion. Crotty (1998) agrees that humans construct meanings as they engage with the world they are interpreting. He also argues that meaning is generated through a qualitative process and is inductive; that is, the inquirer creates meaning from data collected in the field. As a female, Black-African school leader and experienced teacher, this, too, shapes the researcher's understanding and engagement, including familiarity with both school environments under scrutiny in this study. Charmaz (2006) states that it is important that the researcher declares their own position in a study. Looking at the alignment between data collection methods, validity and scope, it is acknowledged that the researcher was inextricably integral to the research. Research meaning cannot be objective but is subjective, with biases and influences from the environment and people in the fore- and background. This means that such research cannot be generalised. The factors that influence the research design include the vulnerable learner, who is perceived poorly by teachers; the institutional inertia or systemic problems where policies do not match the reality on the ground and change is very slow; and the need to equip beginner teachers for inclusive practice.

4.2.3 Constructivist grounded theory

Constructivist grounded theory (CGT) is a flexible research approach that can be used as a method of generating theories through inductive data collection and analysis (Charmaz, 2002), building on the pioneering work of Glaser and Strauss (1967). Constructivist grounded theory offers alignment with the social constructivism philosophical worldview of the researcher. However, employing aspects of constructivist grounded theory presents some tension between the

subjective ontology used to collect and analyse data in this study and action research, where the researcher is trying to capture the efficacy of the project. Constructivist grounded theory is a systematic way of gathering knowledge from data using tools such as collaborative interviews; and from this process, theories emerge. The data needs to be analysed and interpreted systematically. Charmaz (2002; 2006) states that neither data nor theories are discovered either 'as given' in data or in analysis; instead, researchers are part of the world they study, and there must be systems that guide how interpretations are made.

Constructivist grounded theory is appropriate to this study because it is linked to the concept of theory construction being grounded in data (Charmaz, 2006) based on participants' cultural and lived experiences and is a popular methodology for education research. However, for this thesis, literature mostly formed the conceptual framework. Constructivist grounded theory is still considered to be an appropriate approach for gathering data for systematic analysis and reporting. Charmaz (2002) argues that constructivist grounded theory can reflect the underlying ontology of constructing meaning. It can imply a mutuality of positions between the researcher and the participant in the research process.

The four steps for analysing data are code, concept, category and theme. This can be broken down into open coding − explanation of emergent concepts; conceptual coding − refinement of abstract coding; clustering of images − searching for core categories; and development of core theories (Lacey and Luff, 2001). These steps help to understand, interpret and organise emerging data. It is, then, essential to collect data, compare the data and keep reflective notes. Constructivist grounded theory was suitable for this study because it provides a systematic guideline for gathering, synthesising, analysing and conceptualising qualitative data for deeper understanding and possible theory construction. One of the few alignments between constructivist grounded theory and action research is that they both encourage reflective note keeping, where possible. Charmaz's (2006, p. 35) conception of constructivist grounded theory recognised its roots in social constructivism. Constructivist grounded theory provides a suitable lens through which to gather and analyse data for this study because of its flexibility and fluidity. It enabled the semi-structured interviews to be inductive and reflect the participants' voices. The

questions in this research are broad by design so that participants could construct the meaning of a situation typically forged in discussion or interaction with others. Constructivist researchers tend to rely upon participants' views of the situation being studied' (Creswell, 2017) and recognise the impact on the research of their background and experiences.

It is beyond the scope of this study to conduct a truly in-depth comparison between Glaser and Strauss's original, classical GT (1967), Strauss and Corbin's IGT (1997) and Charmaz's CGT (2006; 2014). However, Sebastian (2019) puts it succinctly when he suggests that 'The classical Grounded Theory pioneered by Glaser and Strauss has developed into many perspectives underpinned by different ontological and epistemological assumptions' (p.1). He outlines how Glaser and Strauss's GT (1967) was underpinned by positivism, and Charmaz's CGT (2006) was influenced, conversely, by an interpretivist worldview as well as constructivism.

This study's methodology, ontology and epistemology has an alignment with aspects of Charmaz's CGT that has benefited and enabled the methodological seamlessness of this study. Charmaz, as a student of both Glaser and Strauss, was aligned with constructivism and interpretivism, leaning more towards aspects of Strauss's version of interpretivism and more removed from Glaser's positivism. Charmaz (2014) declares that CGT has a constructivist and pragmatist ontology and a relativist epistemology. She posits that many realities are constructed, enabling researchers, also, to construct rather than discover. CGT allows for flexible timing on the literature review, which may be conducted early and then revisited for inclusion in the study conclusions.

Glaser (1999) communicated a more positivist leaning compared with Strauss's interpretivist views, which resulted in differences in influence and core beliefs. Glaser's ontological stance of positivism and Strauss's emergent social subjectivism exposed the difference in philosophical worldviews that collided, in 1967, to create GT. Sebastian (2019) suggests that the discovery of theory from data in GT was aligned to Glaser's positivist stance and confirms the claims that GT was influenced by both positivism and interpretivism. Although Strauss's epistemological stance aligns with this study, it was CGT, with its aspects of social constructivism and action research that was a better fit.

A key ethical issue for this study was the power dynamics associated with insider research conducted by an executive headteacher within the two participant schools. Basic GT determines that the researcher be distant, detached and neutral as meaning emerges from data, which cannot support this kind of research. Therefore, the mitigations were, in part, offered by Charmaz's CGT (2014), which permits the researcher to be engaged with, and actively interpret, the data. Indeed, Charmaz positively encourages a closer interaction between participant and researcher, albeit with subjectivity and potential bias fully acknowledged.

In GT, literature is strictly conducted after the data collection and research questions become clear during data analysis with no preconceptions. Glaser (1999) suggests that GT is not GT unless it is a complete methodological package. Strauss and Corbin coined IGT (1997) because they shared more epistemological alignment, claiming that IGT data can be elaborated and expanded by others. Strauss and Corbin welcomed adjustments and adaptations to IGT, which encourages a flexible application of the literature review before or during data collection and for data comparison. Research questions are kept vague, to take shape as the data emerge. Open, axial and selective coding allows for a single-occurrence, constant comparative method that acknowledges the researcher and the awareness of their influence while guarding against negatively impacting the study data.

GT, IGT and CGT are less frequently used interchangeably than they once were when deciding how data can be collected and analysed. GT is understood to allow data to emerge, while CGT enables data to be constructed through interaction. Thematic Analysis (TA) methods share the more reflexive approach of CGT and are widely used in research today, as are other approaches that seek to develop themes and categories. TA, best thought of as a spectrum of methods that prioritise coding accuracy and provide reliability to reflexive approaches. It emphasises the inescapable subjectivity of data interpretation with its reflexive thematic analysis providing the point of comparison.

Nevertheless, Braun and Clarke's TA (2006) has proved popular with qualitative researchers, yet some aspects can be confusing. It has, however, undergone some transformation and expansion recently. In 2019, an updated version known

as Reflexive Thematic Analysis (RTA) has helped to clarify numerous misconceptions found in the literature subsequent to their original publication.

Despite the changes, Charmaz's CGT (2014) provides a philosophical, ontological and epistemological setting for this study that has offered the flexibility to predetermine research questions on which data collection could be built, and to conduct the literature review at a stage more suitable to the researcher. It also supports the action research approach taken for this study.

CGT embraces the coding process adopted for this research that begins with the most frequently occurring codes and allows for inclusion of further, significant 'one-off' information, meaning that participants views could be presented in both main themes and sub-themes.

4.3 Sampling

The sampling process for this research was crucial and needed intense critical consideration. This is was necessary because the researcher was also the executive headteacher of the two educational institutions being studied. This means that power dynamics issues and positionality will be discussed exclusively in a later section of this chapter (4.6) because being in a position of power influences the choice of sampling strategy. It was therefore important that each school had individual headteachers and special educational needs coordinators (SENCOs), responsible for liaising with participants to ensure they understood the process of participating in the study.

The research involved gathering and studying information from teachers on entry into the profession to examine why beginner teachers lack confidence in their capability to support children with autism. Therefore, beginner teachers formed the sample for the study. This study was as a result best suited to self-selection sampling, which is a type of non-probability sampling. Self-selective sampling involves selection determined by participants agreeing or declining to participate implicitly or explicitly (Creswell, 2012), such as sampling being a subgroup of the target population. In this case of this study, the target group was 'teachers', and the sub-group was 'beginner teachers'. The schools' teacher community formed the base population for the study. There were, originally, twelve beginner teachers across both schools, evenly distributed and comprising 25 per cent of

the combined teacher population across both schools (49 teachers). Therefore, the selection process was intrinsically linked to the group of eight beginner teachers who self-selected from the original twelve beginner teachers group. removing the need for a prolonged, complex and challenging process. Guetterman (2015) stated that qualitative sampling is based on a series of decisions throughout the research process rather than a single planning decision that remains fixed. Once the process was complete, the relevant biographical details of their professional backgrounds were collected.

The annual intake of beginner teachers, typically, forms a small proportion of any school teaching staff, implying a potential challenge to any sample selection process, but the flexibility of the research approach was crucial for sampling purposes. The rationale for choosing beginner teachers from the school teaching population was two-fold. First, to collect data on the perceptions and attitudes of beginner teachers regarding their preparedness. The second, gathering data from this group allowed exploration of the fundamental issues that hinder beginner teachers' ability to support and include autism spectrum pupils. Sampling must be consistent with the aims and assumptions inherent in the chosen methods (Guetterman, 2015). Interviews were deemed the most suitable method for data collection, thus grounding any emergent theories in rich data. A questionnaire was used to collect contextual data. Rationalising the sample size of eight beginner teachers was more difficult because sampling can represent a group of people taken from a general or larger population (Guetterman, 2015) and though the sample size for this study was small, contextually, it was representative because there were 12 beginner teachers in total. The sample size, thus, represents the beginner teachers population across the two schools equating to 67 per cent. In addition, research data shows that this population is most troubled by the lack of preparedness (Newly qualified teachers surveys, 2015; 2016; 2017). Moreover, the research aimed to be a small-scale study collecting rich, in-depth data, for which a small sample size is appropriate for a study that will not be generalised.

Table 4.3.1 – Participant pen portraits with pseudonyms

Participant Pseudonyms	Age	Career before ITE	Personal/Professional experience of autism	Route to teaching	Curriculum experience
Miss Abbas	25	Carer in a care home	None	Schools Direct	Two hours of lectures
Mr James	29	Teaching assistant	Very little	Schools Direct	Half a day of lectures
Miss Fowler	23	Sports coaching	None	PGCE	One day of lectures
Ms Anthony	26	Banking and the NHS	None	PGCE	Two hours of lectures
Mrs Amin	52	Teaching assistant	Worked with ASC child as a TA	Schools Direct	Two hours of lectures
Miss Abadi	41	Teaching assistant	Worked with a non-verbal ASC pupil as a TA	Schools Direct	Two hours of lectures
Miss Basher	28	Early years practitioner	Little	PGCE	Two hours of lectures
Miss John	28	Teaching assistant	Little	PGCE	Half a day of lectures

4.4 Research methods

Constructivist grounded theory influenced the choices of tools used to gather data to answer the research questions and provided a flexible but systematic way to collect and analyse data. It permitted and promoted the gathering of data using multiple sources. Working with the advisory group (see section 4.7) enabled an exploration of the practical requirements of the participants and ensured that disruptions to the regular running of the school day were minimised. It helped to confirm that semi-structured interviews and questionnaires were the right tools for gathering data.

Questionnaires were initially chosen because of the ease of administration to gather primary biographical data and contextual data to gain insight into the background of the participants. Beyond that, they were used to collect data using a combination of open and closed questions to achieve a range of perspectives from the beginner teachers. Although questionnaires are, traditionally, best suited for large-scale data, McNiff (2006) argues that they can be equally effective for small-scale investigations such as action research projects and indeed, they

proved simple to collate and analyse. Although a complex tool, the questionnaires were time saving, practical and quick to complete, reducing disruptions to school timetables. Using questionnaires in this study enabled a broad insight into the participants' prior experience and allowed the space for participants to share their views. It elicited information such as any experience they had working with autistic pupils before commencing teacher training and produced longform, written or typed answers. Some of the responses were opinions. In this study, the questionnaires also supported anonymity and formed a structured way of gathering data in the absence of the researcher. Conversely, they contributed to the complexity of the research design. However, using questionnaires at varied phases during the research outweighed the drawbacks of extensive design adjustments. They offered a quick and flexible option to gather specific comparative data that did not require follow-up or deep probing of the participants, and the combined use of open and closed questions explored perceptions and gave insights into participants' attitudes after each phase. Likert scales were used to assess opinions, attitudes and behaviours, thus operationalising perceptions, and any gaps or unanswered questions were addressed during the semi-structured interviews, probing greater depth and breadth. The research design included arrangements for collective submission in one large envelope to support the insider positionality issues outlined in earlier sections and to provide more opportunities to put some distance between the researcher and participants. The questionnaires were distributed to beginner teachers via each school's internal school posting system and collected via school offices in a large envelope in a pre-labelled box. Although this process added value by providing a degree of anonymity, it made it more complex.

The data collection was conducted in three phases: pre-intervention, mid-intervention and post-intervention. Data was also collected at milestone points before the research commenced, which helped evaluate the effectiveness of the research design and adjust it accordingly, based on participants' contributions. Phase two of the data collection was during the research. The training intervention was broken into two parts: the theory part and the practical, hands-on part. The pre-training, mid-intervention and post-intervention questionnaires consisted of ten questions repeated at each research phase for consistency and measurability. Finally, after the research, the questionnaire data were used to

compare perceptions throughout, particularly to explore participants' views before, during and after the study.

Semi-structured interviews allow the interviewees to express meaning in their own words (Creswell and Creswell, 2017). Interviews offered a personalised opportunity to explore perceptions of preparedness before, during and after the training intervention. The interviews were, therefore, prepared, as recommended by Brinkmann (2014), to include the scope and focus of the research questions. Interviews are widely considered to be effective at gathering data for research, and semi-structured interviews provide a qualitative method of inquiry that combines a predetermined set of open questions (Creswell and Creswell, 2017) that prompt discussion, with an opportunity for the interviewer to explore particular themes or responses further. This was more suitable for this study than a structured interview with a rigorous set of questions that do not allow the interviewer to divert to areas of interest. A semi-structured interview is open, allowing new ideas to emerge during the interview as a result of what the interviewee says. Kvale (1996) defines an interview as an interchange between two or more people on a topic of mutual interest, with a centrality of human interaction for knowledge production. Lewis (2003) postulates that interviews are at the very heart of qualitative research and that it is through interviews that we elicit people's views and perspectives on the world. The central questions were exploratory, for example, 'How would you describe your knowledge and understanding of autism?' Exploratory questions ensure focus on the issues, not the person, and reduce defensiveness that might be an issue for participants (McNiff, 2017). Phrases like 'discover' and 'describe' enable open-ended responses (Creswell, 2012). In-depth qualitative interviews provide the opportunity to explore a range of practices and experiences.

Employing both individual and group interviews had many advantages. The main advantage of the group interviews was that detailed responses were obtained about personal and group feelings, perceptions and opinions (Booth, 2002) and they saved time, compared with individual interviews. The interview process provided co-support of participants and drew upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way that would not have been feasible using other methods. Group interviews can provide a broader range of

information and offer the opportunity to seek clarification. Using group interviews, therefore, optimised data gathering.

Data collected from interviews formed significant aspects of the study from which conclusions were drawn. Cohen *et al*. (2017) suggest that interviews allow participants to share interpretations of their situations and contexts. The intention was to extract the perceptions and interpretations of participants before, during and after the training intervention to identify any changing views and explore the reasons behind how participants felt in the separate phases. Semi-structured interviews were exploratory in the inductive process of the research. Charmaz (2006) argues that induction does not exclude the use of research questions. Laksov *et al*. (2020) argue that interviews align with constructivist grounded theory (CGT). There were seven questions with a series of follow-up questions dependent on responses. Predetermined questions were combined with the opportunity to follow up and explore deeper. Interviews began with simple questions to ease the participant into the process, for example, 'Why did you want to be a teacher?' Further into the interview, the questions probed deeper into preparedness-related experiences. The administration of the participant-led and researcher-led interviews varied. The researcher was absent from the participant-led interviews. Group interviews offered collective support to the participants to support insider positionality issues. The interviews led by the participants had the same aim. The responses from the researcher-led interviews and participant-led interviews were compared to gather further insight. A more robust examination of the training intervention is explored in the next chapter.

4.5 Data analysis

Data analysis for this study was guided by constructivist grounded theory. Charmaz (2006) suggests that theorising is an act of constructing knowledge from data systematically; a process that allows researchers to keep participants' words intact. Charmaz (2006) describes grounded theory as repositioning the researcher as the author of the reconstruction of experiences and meaning assigned by participants. Glaser and Strauss (2017), a joint pioneer of grounded theory in 1967, affirms that it is a flexible, conceptual, inductive methodology that generates knowledge from systematically collected data. Furthermore, Glaser

(1998) argues that theories are generated and may have different interpretations by different people in different contexts and environments. For this study, open coding was adopted to categorise and explore the themes that were emerging (see Table 1 below). The process of constructing theory from the ground up was implemented as soon as the themes emerged. Across the questionnaire and interview questions, common themes were explored for consistency. Common threads emerged regarding how beginner teachers perceived their practice and what shaped their attitudes before, during and after the intervention. The interpretation of these codes included comparing theme frequencies, identifying theme co-occurrence and graphically displaying relationships between different themes. This approach is supported by Boyatzis (1998) who considered thematic analysis to be a beneficial method for capturing the intricacies of meaning within a data set.

Thereafter, the data was organised, examining and recording emerging patterns (Guest, 2012). Semantic themes were used to represent participants' written or spoken accounts, helping to mitigate the loss of complexity. Latent themes aided the identification of underlying ideas and patterns and the interpretation of the data. The codes were the labels given to pieces of raw data that contributed to a theme by recognising important moments, and the theme was the outcome, or result, of coding. The themes were grouped for further analysis. Broader themes emerged from smaller themes. Overarching (umbrella) themes emerged, which are outlined in chapters six and seven after the training intervention. The figure below (Figure 4.5.1) is an example of how themes emerged from data.
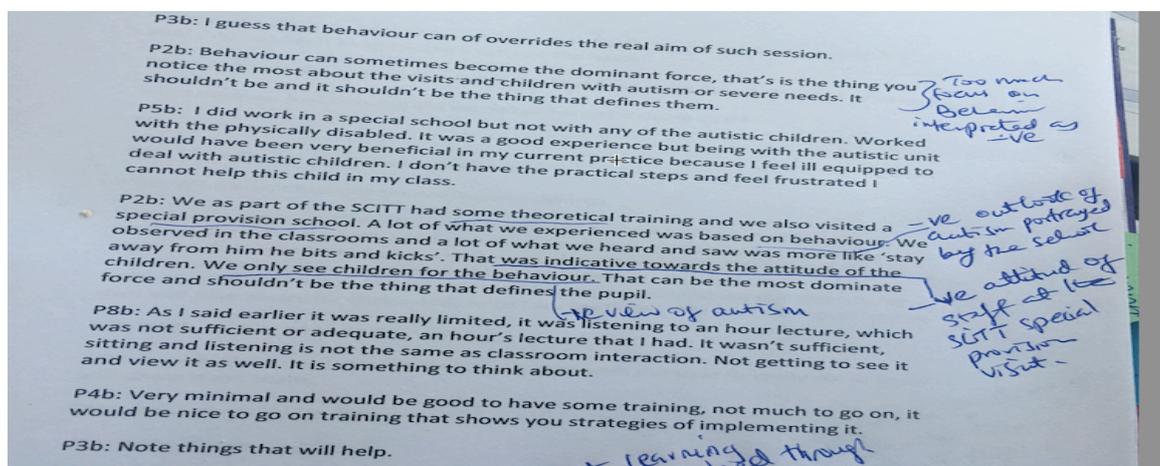
Figure 4.5.1 Codes and emerging themes

The process of coding and merging codes to derive meaning that forms the themes, involved reading and re-reading the data to become familiar with it, paying specific attention to patterns emerging. Initial codes were generated by documenting where and how patterns emerged. Data was reduced into code categories for more efficient analysis and inferences were drawn on the meaning of those codes. Then the codes were combined into overarching themes that concisely depicted the data. It was crucial, when developing the themes, to describe precisely what they meant, even if they appeared not to 'fit'. If an analysis seemed incomplete, the process was revisited. Each theme began to be defined, showing which aspects of data were captured, and what was interesting about the themes. Decisions were taken on which themes made meaningful contributions to the understanding of the data. For accuracy, exact wording was retained to reflect the perceptions and interpretations of the participants. By adopting a structured approach to analysing data and using a multi-faceted approach to enquiry, the overall process remained in compliance with qualitative data analysis. It was inductive, working from the raw data up to the codes and theory generation, and it was precise, consistent and exhaustive. The data was constantly revisited, systemising and disclosing the method of analysis to determine its credibility. The study underwent a continued process of theoretical sampling, returning to the data and linking to the theoretical foundation of social constructivism. The coding process was appropriate for this study because it enabled the de-composition of data for in-depth insight into the participants' views and experiences and re-composition of the data to capture meaning. The process involved coding text files composed of interview transcripts and recoding memos at the margins, going through each line of text and underlining potential quotes alongside the codes, which became the evidence for the description and themes presented in chapters six and seven.

4.6 Implications of researcher positionality

As a black African woman, leading the two large primary schools that I am researching, declaring positionality is fundamental. Positionality is the concept that researchers should acknowledge and disclose themselves in the research, seeking to understand their part in it or their influences on the study. It requires explicit self-consciousness and self-assessment about their positions and how

these might influence the research design, execution and interpretation of the findings (Holmes, 2020). Examining and defining this researcher's positionality as an 'insider' (leader) in the two educational institutions in focus, therefore, is paramount. Czerniawski (2023), acknowledges the power dynamic at play, writes 'the notion that the process of generating knowledge through fieldwork is inevitably affected by the social location of the researcher in question is not new' (p.3).

The researcher's position as executive headteacher of the two schools at the centre of this study, though inherently that of an 'insider', brought to it the experience and knowledge that would enrich the study of what was a familiar context. Conversely, it was not just the researcher's workplace that was under scrutiny, but colleagues who work at the schools under the researcher's leadership. This was vital to acknowledge because of questions surrounding the extent to which beginner teachers in the schools would honestly and critically engage in the action research. Being aware of the influence of the researcher's positionality, in this case, meant having clear parameters to the aims of the research and, therefore, explicit that it was about identifying factors that influence beginner teachers' perceptions of autism and attitudes towards autistic pupils. Clearly, there were power dynamics that could affect the quality of data gathered, if undeclared. Czerniawski (2023) posits that 'power and positionality are contested…situated in an intersectional space […] identity, knowledge interplay (p.4).' So, for this study, the researcher's association with the participants is acknowledged, but not as line manager, because the schools have a headteacher directly responsible for the teachers. However, the researcher does line-manage the headteachers. Consideration was given to how much the researcher's role might affect the quality of the data and integrity of its interpretation for this study.

To reduce the impact of the researcher's positionality on the study, the ethics application was comprehensive, and the research design made clear the researcher's role as a school leader, researching their own institution. In addition, there was a lead special educational needs coordinator (SENCO) across both schools acting as an SRP manager and inclusion leader who was appointed as the research gatekeeper. This is someone who stands between the data collector and the complexity of the power dynamics (being a critical factor when deciding

on the efficacy of the sample and the potential respondent), and controls who has access to participants.

The process of collecting the action research project data was pivotal. Participants were interviewed by the researcher individually and in groups, but in addition, the participants, themselves, carried out the same interviews without the researcher, to ensure their openness and the validity and reliability of the data collected. Czerniawski (2023) cites models of power between the interviewer and interviewee and how they respond in line with each other's perception of power balance. Power alongside theoretical positions can influence the dynamics of the interview. The schools under scrutiny contain layers of senior and middle managers who directly manage the teachers, including the beginner teachers. Though not directly line-managing teaching staff, the researcher holds a senior role and has a personal stake in the success of both schools. Therefore, there was value to the researcher in conducting this study so that a framework or substructure could emerge from the findings that would improve the organisation and their own practice. It was understood that the power dynamic could result in participants offering false positive feedback due to anxiety about being targeted through performance management and no assurances would have completely eliminated those anxieties.

It was understood, also, that the process might unearth uncomfortable truths about the organisation. Nevertheless, the researcher's desire to ensure the most vulnerable pupils in the school were adequately supported superseded any 'ego bruising' truths that would emerge from the study. This belief naturally supports an interest in the views of the participants. In addition, it was important to convey the researcher's professional understanding and awareness of the systems under scrutiny as well as recognising the possible role played by the researcher behind some of the issues that emerge. Charmaz (2006) argues that this kind of insider involvement allows the researcher to portray participants' voices honestly and accurately. In this context, there was a shared understanding of the captured narrative, albeit from a different perspective to the beginner teachers.

The researcher was more anxious about representing their voice fully and making sure that their critical contributions were captured and not sanitised from the data. Charmaz (2006) posits that being reflexive during a study means being honest and ethical in the execution of research practices. The social and cultural

construction of knowledge is central to this study's assumptions; therefore, time was required to consider how the beliefs and views of the researcher might impact the research process while attempting to interpret the complexities of the concepts and realities involved. In designing this research, the influence of the prerequisite and theoretical perspectives of the study was reflected upon, as well as the data gathering and interpretation. Social constructivists and proponents of constructivist grounded theory agree that the researcher is part of the research with a role that means capturing the participants' views and experiences and articulating them to retain the meaning. The data is analysed using constructivist grounded theory and can reflect the underlying ontology. This position allows the researcher to develop mutuality with the participants (Charmaz, 2002) and partnership allows the co-construction of knowledge. Sikes (2010) posits that the individual's worldview and thinking about the nature of social reality, epistemological assumptions and assumptions about human nature and agency influence research choices. As a social constructivist-leaning study, with collaboration at the heart of its design, Sikes (2010) writes that the theoretical perspective that influences a researcher's stance means that even the choice of methodology may enable or bias participants' contributions. However, the researcher's choice of action research meant it was important to represent the data fully and this was considered while choosing the research methodology and method of data gathering. Participants collaborating, interacting throughout to allow collective learning was important.

The concept of the validity of research has been the subject of debate because it is complex and problematic (Rooney, 2005). Validity is the degree to which studies accurately reflect what the research is trying to measure. This makes the appropriate tools for collecting data essential to answering the research questions. Robson (2002) builds on this shifting philosophical standpoint by arguing that researchers can be, and connect with, the research setting, which, in the case of this research, means that the researchers can explore the complex and misunderstood concepts of autism and inclusion in their own institution. The researcher's insider understanding of the practices in education, and in both schools may improve the study because of their cultural understanding of the setting. There is, however, a need to be transparent about the researcher's biases in this study as a subjective observer, leader and social constructivist. The

direct involvement with the setting should not be deemed as a drawback but rather as an awareness of position and influence and a contributor with a shared interest in improving practice.

The social constructivist approach supports the insider researcher, personal involvement, and subjective nature of the study. Insider researchers draw upon the shared understanding and trust of their immediate and more removed colleagues with whom everyday social interactions in working communities have been developed. The insider researcher can open up value issues for critical enquiry and discussion and is more likely to yield insights conveyed in a form which makes them worthy of interest to a broader audience. Hammersley *et al*. (2018) state that there is no way to escape the social world to study it. Thus, measures were taken to reduce researcher impact by incorporating participants interviewing each other in addition to the researcher conducting interviews and comparing the data gathered from both types of interviews.

Researcher positionality is not a negative tool of research, instead it brings strength of knowledge that can add to education conversation even when the views are opposites, Czerniawski (2023) writes that '…discord should not be viewed negatively, it should be a 'powerful tool' for nurturing professional autonomy, learning and transformation and continuing critical practice' (p.12). Insider researchers, therefore, need to ensure the dialogue communicates and declares their role in the community they research, take every step to diminish bias and other limitations of being an insider-researcher, consider the extent to which teachers self-select to participate, and remind them often of their right to withdraw from the research.

As a female, Black African leader and a minority, I made a conscious decision to downplay aspects of my identity to highlight the difficulties experienced by autistic pupils, another minority group. I understood that it was a privilege and opportunity to investigate autism in schools, I was determined to focus all the attention on this minority group without a voice. This is because as a minority, I know what it is like to be voiceless.

Researching autism in mainstream settings highlighted an empathy and alignment with the under-represented group of children who were the ultimate recipients of the changes I sought to engender. Yet though my position – as leader of the schools under study – raised inevitable questions relating to power

dynamics, it was that unique, empathic insight that served to compel me to forge ahead with the insider research approach, despite its challenges. Focusing on the ideals of empowerment, and feeling determined to give voice to beginner teachers as well, I strove to amplify and advertise the potential impacts that an ill-equipped teacher cohort can have on vulnerable minority groups of children.

There were some difficult-to-answer questions and inadvertently as the study wore on, contemplated, for example, who was this really benefiting? This led to electing, at one point, somewhat invertedly, to consciously downplay the female, Black African dimensions of her identity as part of an effort to ensure that all the attention was focussed on giving another minority group a voice – knowing, as she did, from first-hand experience, the full impact of not having one.

4.6.1 The researcher's declaration (in her own voice)

To limit the effect of my biases and how 'truth' is conveyed within the research, I have highlighted my epistemological and ontological beliefs and explained why the action research supports a cycle of data collection alongside constructivist grounded theory as an efficient and reliable data analysis tool (Charmaz, 2006), outlining how it helped to reflect participants' views and interpret the data accurately.

My research design has enabled a transparent process that made my stance clear. I selected a method that supported data in an environment where the participants felt safe and could share their views and co-construct knowledge. I was conscious of capturing and reflecting the beginner teachers' perceptions authentically. As a result, I could build a genuinely trusting relationship with the beginner teachers that was not burdened with line management or performance management expectations. However, I have remained aware of the complexities, and the possibility of a one-sided view as a leader, being determined to understand what was happening at the schools to improve the vulnerable children's inclusion.

To improve the data quality, participants interviewed themselves anonymously to ensure robust data that was valid and honest. The resulting data was compared with my own interview outcomes and the difference was negligible. In addition, the gatekeeper expressed confidence in the validity of my research process, and

participants had clarity about the scope and limitations of the research. I was aware that there must have been occasions when it was impossible to separate the leader from the researcher in a complex relationship. Still, I remained committed to declaring my stance to participants throughout the process.

4.7 Ethical considerations

Prioritising the integrity of research principles was deemed crucial so that the study's findings remained valid. The methodology and methods were chosen to contribute to the integrity and validity of the study. This research aimed to engage with all conventions of conducting ethical research in schools by ensuring that anonymity, informed consent, openness, confidentiality and 'doing no harm' were prioritised. Participants were informed about how data would be stored and disposed of. The processes were in line with university ethical procedures, the regulations of the British Educational Research Association (BERA) (2018) and the processes and guidelines on study ethics of the School of Education and Communities at the University of East London (UEL). The university's ethical board approved the research. The research did not involve working directly with children and there was an agreed gatekeeper to support the participant recruitment process. Consent was sought and received from all participants.

4.7.1 Reflective journal

Reflective journals explore the concept of critical self-reflection. Denzin (1995) refers to reflective journals as a means to keep thoughts and feelings visible and an acknowledged part of the research process to enhance the transparency of the study. Bashan (2017) suggests that the role of reflective journals in qualitative research is expanding, not as a research tool but as a way to review and improve actions and processes. Such a journal was maintained for this study, which primarily details the researcher's account of the learning experience, presenting a unique insight into the researcher's thought processes. It was never intended to form part of the tools of this study, simply an opportunity to look back at milestone points of data gathering and analysis to shape what happened next and, where appropriate, adjust. Many points of reflection were required to determine the next step in the data-gathering framework. The phased approach provided many opportunities to make reasonable adjustments and reflect on the

validity and reliability of the study. Acknowledging the researcher's insider position, the journal remained reflective and aware of how the researcher's actions might impact participants.

4.8 Research advisory group

The purpose of a research advisory group for this study was to help the researcher gain insights and advice about the research design and processes. The original plan was to conduct a pilot, but this meant running a small version of the study and the sample of participants was already too small and time commitment was an issue. It was at a point of deciding whether to widen the research scope beyond teachers new to the profession or continue with the plan.

Research advisory groups are more commonly used in funded health research studies. They are often small, made up of 4−6 people, and offer personal or professional advice that helps the researcher shape their result structure. A well-structured advisory group with best practice principles allows people in the organisation to test their strategic thinking and access expertise or connections that may not be readily available via other means. Advisory boards can go by many different names depending on their purpose, scope or even country (Advisory Board Centre, 2023). The strategy of employing a research advisory group was necessary for transparency and a spirit of team agency, so that a small group from across the school could share their honest views of the research plan before it was conducted. The advisory group consisted of two teachers − one with 25 years' experience and one with three years' experience − and a teaching assistant. The group met twice, for an hour and half each, to hear the process of the research.

The role of an advisory board is not to make decisions, but rather, to contribute objective views on the plans for the study. The researcher talked the group through the plans and tested some questions and ideas on them for their feedback, providing possible scenarios for views and eliciting stimulating, high-quality conversations at low risk to the group. Due to the flexible nature of advisory group, there was no declared scope, or terms of reference. They asked a series of questions about their roles as part of the group before committing to the meeting, which helped gauge their receptivity to the study. The meetings, then, tested aspects of the research design to allow adjustment before embarking

on the comprehensive research. The meetings resulted in adjustments to the proposed schedules that helped the smooth running of the research process.

Data collection was one of the main concerns of the research advisory group. Semi-structured interviews were identified as the most appropriate data collection tool as they were understood to provide opportunities to gather rich, in-depth data that would, ultimately, answer the research questions. They were also thought to help in posing follow-up questions to clarify participant responses. This study had limitations due to its small scale; however, it was never intended for the investigation to be generalisable. The advisory group helped check the study instruments' efficiency. It supported the protocol design for the primary research and tested the sampling framework. It was beneficial in adjusting the timetable and logistics to a more reasonable and workable programme, considering the schools' full functionality. It helped the gatekeeper adjust the schedule to accommodate the interviews and local logistics. It was also essential for checking how long each research component would take.

In summary, the steps involved exploring the database, coding the data, assigning labels and aggregating the codes into descriptions and themes, thus emphasising the inductive reasoning 'bottom-up' approach. Conventional data analysis was chosen because it is the practice more commonly associated with qualitative data analysis. The study used multiple sources of data, which helped to build rigour and trustworthiness (Attride-Sterling, 2001). The analysis allowed for the formulation of new theories around beginner teachers' readiness for inclusive practice.

4.9 Conclusion

This chapter captures the theoretical underpinning of the research, showing how social constructivism influenced the action research design. It outlines how the methodology determined the method of data collection and highlights the role of critical reflection in research where every design decision impacts the outcome. The epistemological and ontological standpoints, as well as researcher positionality, are made explicit as integral aspects of the planning process. The researcher's position as an insider, with its potential for bias, is acknowledged, and the methods and tools used are considered carefully to mitigate any impact of this, with a view to fairly representing the participants' interpretations of their

experiences. The methodological approaches for the study provide an analytical framework from which new theories are shown to emerge in the following chapters.

Through the chapter, the rationalisation for the use of action research and the discussions of the approaches to research rooted in social constructivism, the theoretical framework for this study was examined. The sampling process was explored as well as an in-depth exploration of the researcher's positionality and the researcher's declaration. The discussions on the ethical implications of the research design, the relevance of the use of a reflective journal and the rationale for the use of a research advisory group were discussed. The research methods and the validity and credibility of the research design choices are outlined in each section and a justification is provided for data gathering in three stages, explaining the choices of data collection methods, mainly semi-structured interviews and a questionnaire for collecting contextual information. The next chapter contains an in-depth explanation of the training intervention.

Chapter 5: The Action Research training intervention

5.1 Introduction

This chapter outlines the training intervention that played a central part in this action research project exploring how beginner teachers might be equipped for inclusive practice. It details an investigation of autism in mainstream schools in England, looks at what influences the way autism is perceived by beginner teachers and explains how the data was collected for this project. The training intervention planning consists of actions aimed at addressing the research problems identified from the conceptualisation of the research and data gathered from participant interviews. The action research training intervention was an effective tool to offer beginner teachers training that considered the information gathered from the conceptual framework assumptions and data from the participants' interviews. The intervention was the action chosen by the researcher as a tool to explore.

An intervention is any kind of activity, such as a treatment, therapy or provision of service that is designed to improve the quality of life or professional ability of people (National Autism Society (NAS), 2018). Successful actions are those that ensure sustainability in the context of the research (McNiff and Whitehead, 2011, p. 41). Intervention has been a tool used in education to support children who have fallen behind their peers academically or to provide emotional support for children experiencing trauma of any kind, including the reality of exclusion. The Autism Education Trust (2019, p. 9) states that autistic pupils are eight times more likely to be permanently excluded from school than other pupils with special educational needs (SEN). Sanz-Cervera *et al.* (2017, p. 134) suggest that mainstream schools may not be equipped to deal with the increased number of autistic pupils coming into mainstream schools. They add that teachers may struggle to cope with this highly complex and poorly understood area of education. If teachers are not adequately equipped to include autistic pupils in their mainstream classrooms, there could be adverse effects on the pupils.

5.2.1 Planning the intervention

The intervention planning commenced with a clear timeline (*see table 5.2.1*) below which detailed exactly what was going to happen and when, to enable manageability and monitoring. There were various dynamics involved and it was crucial that the outcomes, positive or negative, had more to do with planning, reflection and the interrelationships between interacting interventions than the effect of any individual action (Griffiths, 2006). The intervention involved careful planning that aligned with the cyclical cycle of action research with pauses built in to collect data. Below is the timetable that outlines the actions taken to plan and execute the intervention over a period of fifteen weeks.

The training intervention, including the planning and recruitment of participants, spanned fifteen weeks, but the actual intervention was ten weeks. Preliminary preparations included advertising the research to the general population of the teaching staff at both schools by email and signposting with clear eligibility criteria. Once this was concluded, recruitment and identification of the final potential participants were made easier by the self-selection. The research aims and questions were focused on the beginner teachers within the schools' teaching populations after the research advisory group meeting. The headteachers of both schools and the research gatekeeper of the school narrowed the field and eligibility criteria to identify the potential participants in line with the aim, following feedback from the advisory group.

The recruitment process and all pre-intervention arrangements were concluded by the beginning of April 2018. The consent forms were sent by post and returned, participants were confirmed and all initial meetings with participants were organised and conducted with the help of the headteachers and inclusion managers. Two meetings were held with the prospective participants to fully explain the research. The first was held with the beginner teachers who had responded to the emails or signposting or were recommended by the headteachers or inclusion manager. They made up the entire beginner teachers' population across both schools. It provided an opportunity for participants to gain a greater understanding of the depth of the research in general, the potential benefits and drawbacks. The second meeting was held with the eight beginner teachers who had signed the consent form and were now considered to be participants. It was an extended meeting, outlining specific details of the data

collection and intervention. It was important to use the opportunity to remind participants of their right to withdraw from the project at any time, in line with the ethics guidance. The table 5.2.1 below shows detailed phases of the training intervention and what each phase entailed.

Table 5.2.1 – Timeline for the action research project

Research Study	Date
Stage 1 of the doctoral study commenced	
Modules: ETM600, ET608, ET7906 **(Literature review)** ET7907 (Methodology and methods), ET8909	October 2013 to July 2015 October 2015 to July 2016
Stage 2 of the doctoral study commenced	October 2016
Registration phase and enrolment	November 2016 to April 2017
Ethics approval	17th November 2017
Methodology (draft)	November 2017
Literature review (draft)	December 2017 to March 2018
Research activities commence	April 2018
Advisory group is convened	
Phase 1: Planning, preparation and pre-intervention data gathering	
• Advertising the research by publishing details via emails and notice boards • Recruitment of participants • Meeting the potential participants • Consent forms returned • Meeting with final participants to explain the research	April 2018
• Sampling • The rationale for determination of the sample The rationale for the sample size	
• Data gathering • Determine the questionnaire type/style • Distribution of questionnaire (by post, with reply-paid return envelope) • Decision on the type of interview	April 2018
• Analysis of the questionnaires completed by beginner teachers • Perceptions and attitudes of preparedness to include autistic pupils • Prior knowledge and understanding of autism • Experience of how autism affects pupils • Strategies already known • Understanding of inclusion	16th to 22nd Apr 2018
• Semi-structured baseline interviews with beginner teachers (open-ended and flexible) • To capture pre-intervention perceptions and attitudes • To fill gaps in the contextual data gathered through the questionnaire • To document the challenges perceived around including autistic pupils in the classroom, particularly pertaining to their difficulties in social and emotional understanding.	23rd to 27th April 2018
Phase 2: The intervention	
• Training Intervention Part A – Theory phase (first action research cycle). Five weeks of theory-based training	3rd May 2018, 10th May 2018, 17th May 2018, 24th May 2018, 7th June 2018

• Mid-point interviews (data gathering) to capture any changes in perceptions and attitudes	8th June
• Intervention Part B – Practical phase (second action research cycle). Five weeks of practical training at the SRP for autism.	14th June to 12th July 14th June, 21st June, 28th June, 5th July, 12th July
Phase 3: Post-intervention interviews	
• Capture post-intervention data about any changing beginner teacher perceptions and attitudes • To capture data on beginner teacher's preparedness to include autistic pupils • Data on readiness for inclusive practice	13th July to 16th July
ITE policy change – Early Career Framework (ECF) and Initial Teacher Training (ITT) Core Content Framework (CCF) came into effect.	September 2021
Data analysis	August 2018 to November 2018
Findings and discussions chapter	December 2018 to March 2019
Conclusion chapter	June 2019 to January 2020
Study suspended	October 2020 to October 2021
Literature review (update)	October 2021 to January2022
Study suspended	January 2023 to October 2023
Literature review (update)	September 2023
Findings and discussions (update)	October 2023
Introduction and conclusion (updated)	November 2023
Ethics approval (amended version) and thesis submitted	11th December 2023
Department for Education in England – Outcome review of ITT CCF and ECF	January 2024

The table above highlights the process of planning the intervention involved considering the timeline in terms of feasibility and manageability. There was a need to reflect on multiple aspects including how to monitor the actions taken; the challenges of organising the multiple phases of the actions required for the intervention; reviewing the systems and processes; and how deliverable were the stages of preliminary preparation, theoretical and practical training and post-intervention. It was crucial to ensure that actions and lines of inquiry were systematic and robustly developed so that the research question remained central to the intervention.

5.2.2 Phase 1 - Pre-intervention data collection phase

As you have seen in the previous chapter, chosen methods were discussed in chapter 4. Before the training intervention, data was collected from a range of sources, including a questionnaire for collecting contextual data, followed by the interviews. The pre-intervention phase was crucial because it enabled three sets

of data (see table 5.2.2.1). Data was collected from questionnaires (Q1), individual semi-structured interviews led by the researcher (P2a) and group interviews led by participants (P2b). The responses to the ten pre-intervention questionnaire questions ranged from 'little' to 'very little' knowledge, understanding or experience and exposure to autism. The data captured helped the researcher understand the participants' experiences of autism and shed light on the influences on the perceptions of autism. It helped to shape the co-construction of the training intervention and incorporate participants' suggestions that ensured the intervention was grounded in the initial data collected. Table 5.2.2.1 shows the use of questionnaires to collect basic information and contexts, and the cycle of interviews conducted by both the participants and the researcher (referred to in the positionality section of Chapter 4). This section represents the study's alignment with the action research cycle of collecting information at different points and, if necessary, extending the cycle to suit the context; gathering further information to better understand the problem, or evaluate the extent to which actions have enabled change.

The table below shows that semi-structured interviews were the main data collection tool used in the research, which aligns with the social constructivist stance of the study. Of the nine data collection points in the study, only two involved questionnaire data collection, which was mainly used for the ease of contextual and basic information collection, such as age, gender and for closed questions. It also shows that the researcher led four interviews in total, a mixture of individual and group interviews, while the participants themselves led three group interviews. The participant led interviews helped to address some of the power balance and positionality issues addressed in detail in the previous chapter.

Table 5.2.2.1 – Interviews by participants and the researcher

Pre-intervention	Questionnaire	**Q1**
Pre-intervention	Individual interviews led by the researcher (1)	P1a – P8a
Pre-intervention	Interviews by the participants (1)	P1b- P8b
Mid-intervention	Individual interviews led by the researcher (2)	P1c- P8c
Mid-intervention	Group Interviews led by the participants (2)	P1d – P1d
Post-intervention	Questionnaire	**Q2**
Post-intervention	Individual interviews led by the researcher (3)	P1e- P1e
Post-intervention	Group interviews led by participants (3)	P1f – P1F
Post-intervention	Group interviews led by the researcher (4)	P1g – P1g

The table above highlights the approach taken by the research to adapt the principles of action research, constructivist grounded theory (CGT) and social constructivism because they all subscribe to phased data collection. Appendix 1 showed how questionnaires were used to collect pre-intervention and post intervention data for the ease of analysis as well as for the convenience of the participants, it allowed them to complete the questionnaire anytime and return it to the drop-box in the designated areas of the school offices. The data collected highlighted how participants are often at different stages of understanding autism and inclusion depending on experience. It exemplifies the data gathered before the commencement of Phase 2 of the intervention. In response to the question on knowledge of autism and how it affects children, the respondent ticked '2' to signify 'very little' understanding of autism and how it affects autistic pupils. The table below sets out the questions used in the interviews.

Table 5.2.2.2 − Interview questions

Pre-interview questions

Interviewer	Participants
Date of interview	3/5/18
Length of interview	40 minutes
Type of interview	**Group – Pre-intervention interview**

Research questions

To what extent are beginner teachers prepared to include pupils with autism in their mainstream classrooms?

1. What are the perceptions and attitudes of beginner teachers about their preparedness to include pupils with autism in their mainstream classrooms?
2. How effectively will a 10-week training intervention that combines the theoretical understanding of autism with established best practice in a special resource provision prepare beginner teachers to include autism spectrum pupils?

The interview commenced at 2 pm and lasted for approximately 40 minutes.

The group interview

Q1. What previous experience did you have with autism or autistic pupils before training as a teacher?
Q2. How would you describe your knowledge and understanding of autism?
Q3. What does inclusion mean to you in relation to pupils with autism?
Q4. What is your perception of working with pupils with autism in terms of being equipped to work with them?
Q5. How would you describe your preparedness through teacher training to support pupils with autism?
Q6. How would you describe your preparedness through in-school CPD to support pupils with autism?
Q7. Do you feel that you would benefit from engaging in a 5-week action research theory-based training about inclusion and autism?
Q8. Do you feel that a 5-week action research project with practical experience in a special resource provision will improve your professional practice?

The table above represents questions that were asked at both group and individual interviews. Note that the reference to 'interview' represents a semi-structured interview that allowed additional explanation or follow-up questions to clarify a point. For example, 'What previous experience did you have with autism or working with autistic pupils?' Depending on the response, participants were asked follow-up questions such as, 'Explain what the experience contributed to your perceptions of autism'.

5.2.3 Phase 2 - The training intervention – Part A

The table below sets out the 'action' which was the theory part (A) of the study which details weekly lessons with objectives, introduction, independent/group work, reflection of main focus, in line with Vygotsky's (1978) social learning theory, which aligns with the theoretical framework of this study.

Table 5.2.3.1: Week 1 of the phase 2 – Part A of the training intervention

Lesson plan	Objectives, introduction, resources, activities, evaluation, reflections and adjustments (weeks 1–5)		Time: 1.30 pm–3.00 pm
Week 1	**Focus teaching point** What is autism? **Objectives** To understand the characteristics, barriers and challenges associated with autism. **Introduction** What is the 'Difference, not deficit' debate? **Independent/Group work** Group discussion and feedback **Reflection main focus** What are the characteristics associated with autism? What are the challenges facing the pupils?	**Main Activities** What are the key characteristics? **Plenary** List five characteristics associated with autism. In pairs, identify two barriers. Two ways autism affects pupils. What would you like the researcher to focus on more next week?	**Evaluations** What have you learned? What did you already know? What is new? Reflections/adjustments Time to discuss **Resources** Definitions Characteristics **Keywords** Autism, barriers, deficit, difference **(See lesson PowerPoint)** Task/reflection/adjustments for the next lesson.
	What are the barriers to learning for autism spectrum pupils? How does autism affect pupils?		

The training intervention was a detailed weekly project with a clear focus and included activities, evaluations and reflections with built-in opportunities for adjustment. The research questions were central to the planning and designing of the training intervention. The design considered key skills of communication (Higgs and Hunt, 1999, p. 15) and the importance of linking the schedules and lesson aims to skills, knowledge and strategies that could support improved data gathering and ensure in-depth interaction between participants.

The first lesson began with a brief assessment to ensure the participants reflected on the characteristics of autism and the challenges faced by autistic pupils. The

activities enabled in-depth discussion about how autism affects pupils and how making use of that knowledge is a key strategy for inclusion.

The activities enabled reflection and discussion between participants about the theme of the session and involved describing and explaining their understanding. They were asked to identify the key strengths and challenges faced by pupils in the areas of communication, social interaction, information processing, interests and sensory processing and explain how these can affect pupils' actions and learning (Autism Education Trust, 2018). Throughout the sessions, ongoing self-reflection was useful for focusing participants on aspects of their autism practice that might require further development. This enabled them to evaluate the knowledge, skills and personal qualities they have that will support the pupils. Critical reflexivity (McNiff *et al*., 2013) was an important component of the training design process too, recognising and eschewing any starting assumptions of the designer.

Week 2 planning considered what inclusion means for autistic pupils and the importance of participants having a thorough understanding of inclusion. As inclusion is a huge subject area, it was narrowed down to the policies and practices of inclusion. In keeping with Vygotsky's (1978) constructivist dimension of learning (where the teacher guides the learner, considers what is already understood, seeks to discover the gaps, and puts the learner in a position to create new knowledge through dynamic interaction between task, instructor and learner), the researcher was a facilitator who enabled the participants to discover, discuss and reflect.

Week 2 also incorporated a look at the legal obligations and expectations that underpin inclusion. A review of existing documents such as the Teachers' Standards (2016), the SEN Code of Practice (2015) and the Equality Act 2010 supported this session. Garmon (2005, p. 278) suggests that when reviewing research on trainee teacher attitudes to inclusion and SEN, it is important to start by reviewing and attending to the trainees' pre-dispositions.

Table 5.2 3.2 − Week 2

Lesson plan	Objectives, introduction, resources, activities, evaluation, reflections and adjustments (weeks 2–5)		Time: 1.30 pm–3.00 pm
Week 2	**Focus teaching point** What is inclusion? **Objectives** To understand why autistic pupils have the right to be included **Introduction** What does inclusion mean in a school context? In your class? In your practice? What documents set out the rights of autistic pupils? **Independent/Group work** Identify the protected characteristics that link to SEN pupils. In the Equalities Act 2010? **Main focus** Breakdown of the legal framework What legal documents set out a framework for including SEN (autism spectrum) pupils?	1. The Equality Act 2010 – Preventing self and others from discriminating against disabled children. 2. Teachers' standards (2016) – Adapting teaching and understanding the needs of all pupils 3. SEN code of practice (2015) − securing inclusive practice and removing barriers to learning **Main activities** What are the differences you can identify between policy and practice? 15 min **Plenary** What does it mean to create an inclusive learning environment? 10 mins	**Evaluations** Identify the key messages from the research document Reflections/adjustments **Resources** Equality act 2010 Teachers Standards 2016 SEN code 2015 **Keywords** Inclusion, equality, legality (See Lesson 2 on the PowerPoint)

In the third week, the lesson focused on ensuring that the participants understood the historical context and the way the idea of inclusion has evolved over time. The aim of the lesson was to highlight the focus of government policies on social inclusion issues and how the concept of segregation and treatment of people with SEN and disability has strengthened the argument for reviews of educational policies and practices. In addition, the evolution of pupil and parental rights and voice as a legal requirement for schools and professionals was considered. This led to in-depth discussion, participation, reflection and evaluation of own practice on the part of the participants.

Table 5.2.3.3 − Week 3

Lesson plan	Objectives, introduction, resources, activities, evaluation, reflections and adjustments (weeks 2–5)		Time: 1.30 pm–3.00 pm
Week 3	**Focus teaching point** Inclusion and autism **Objectives** Understanding the historical context of rights and responsibilities to include autism spectrum pupils **Introduction** From segregation to rights for SEN pupils. Historical context − Wood (1929), Warnock (1978) and Lamb (2009) **Independent/Group work** Look at extracts, what did Wood, Warnock and Lamb do for the rights of pupils and parents? **Main focus** Salamanca Declaration (1994) conference for SEN needs. Convention on the Rights of the Child 3 Promotes the best interests of the child and the right to education (1989)	**Main activities** What is Inclusive schooling? How can you promote equal opportunities and access in your classroom? **Plenary** What are the lessons and implications of the lamb review?	**Evaluations** How has schooling changed over time? Trends in policy over time? Reflections/adjustments **Resources** Salamanca declaration, Woods, Warnock, Lamb **Keywords** Right, inclusion, (See Lesson 3 on the PowerPoint)

Understanding what it is like to live with autism was a key focus of the training intervention. Previous lessons had outlined the basic attributes of autism, and inclusion had been discussed in depth to set the context illustrating the difficulties of daily life for autism spectrum pupils. This lesson's activities were designed to provoke thought and discussion, helping the participants towards insight into what it is to be autistic. It showed that understanding was the first step to the inclusion of the pupils.

Table 5.2.3.4 − Week 4

Lesson plan	Objectives, introduction, resources, activities, evaluation, reflections and adjustments (weeks 2–5)		Time: 1.30 pm–3.00 pm
Week 4	**Focus teaching point** What is it like to live with autism? Descriptions and reality **Objectives** What are the theories of autism? What are the lived experiences of autistic pupils? **Introduction** To understand the theories of autism and the impact on how autism is viewed **Independent/Group work** What does appearance and reality mean for autistic spectrum pupils? **Main focus** Impact of the descriptions of autism	**Main activities** Discuss the implications of the theories of autism In pairs, list three things you have learned **Plenary** What are some of the difficulties encountered by autistic pupils in their daily lives?	**Evaluations** What do we understand about living with autism? Reflections/adjustments **Resources** Common descriptions of autism **Keywords** Autism, descriptions (See Lesson 4 on the PowerPoint)

The final week of phase two, part one of the training intervention provided more opportunities to gather data that would support the research question. It focused on how approaches aimed at providing intensive support to autistic pupils − through predictable scheduling, consistent routines and structured learning − can make a difference to their ability to engage with their lessons. It emphasised the importance of adapting teaching to meet needs and creating classroom routines with built-in flexibility to adjust to the needs of individual children. Finally, there was a look at resources such as 'now and next' cards, visual timetables, cue cards and the outdoors, including field trips.

Table 5.2.3.5 − Week 5

Lesson plan	Objectives, introduction, resources, activities, evaluation, reflections and adjustments (weeks 2–5)		Time: 1.30 pm–3.00 pm
Week 5	**Focus teaching point** Autism and structured learning **Objectives** To understand the advantages and disadvantages of structured learning for autism spectrum pupils **Introduction** How can structured learning support an inclusive learning environment? **Independent/Group work** List resources and why you would use them Main focus What does an inclusive classroom look like? A place to belong – Enabling environment Adaptable curriculum	**Main activities** What is the rationale for visually cued instructions? How can we use visual timetables and planning activities that include visual cues, visualisation and pictures? How do we incorporate these into the curriculum delivery? **Plenary** Link SEND code of practice (2015) to adapting curriculum and resources	**Evaluations** What is autism? How can I adapt to include? **Resources** Bespoke adapted curriculum resources for the training intervention such as: Quick maths Speed reading Value of number Power of words **Keywords** Inclusion, adapting teaching, structure (See Lesson 5 on the PowerPoint)

5.2.4 Phase 2 - Mid-point data collection

In phase 2, part A, the theoretical understanding of autism and inclusion were explored. Data was collected after the first five weeks of the training intervention to explore participants' perceptions of autism and understanding of inclusion. Phase 2, part B, also consisted of five weeks of practical, hands-on experience in a special resource provision (SRP) for autistic pupils. It was aimed at exposing the participants to working alongside specialist staff within a mainstream school. Both parts of the training provided high-quality engagement and developed an understanding of the typical characteristics of autism and the general principles of inclusion. The theoretical training shed light on how autism affects pupils. It

examined the principles of inclusion in depth and explored how special education policies and practices have evolved over time, from the Woods Committee Report (1929), which argued that disabled children should not be isolated from mainstream education, through the Warnock Committee (1978), which reviewed the educational provision for disabled children, to the Lamb Enquiry (2009) into parental rights of involvement in their children's education. Phase 2 part B of the training intervention provided practical experience to observe and work alongside experienced staff. Rich data was gathered at the end of the intervention that provided some explanations and answers to the research question.

5.2.5 Phase 2- The training intervention - Part B

In designing the second part of the training intervention, it was important to set out some 'ground rules of engagement' for participants. First, the participants' role at the SRP was limited to working with adults; shadowing, supporting and observing best practice. Second, it was crucial to understand that the pupils in the unit were highly vulnerable and were not participants in the research – the Ethics Committee guidelines had to be strictly followed. Unlike in Part A, the researcher would not be present, except to meet with the SRP staff for ten minutes at the end of each session in a focus group discussion about any reflections and adjustments. An essential part of the design of this part of the intervention was to work with the SRP staff to ensure that the autism spectrum pupils at the provision had been prepared for the additional adults visiting. Finally, a protocol for dealing with any issues arising, including safeguarding, was established.

Table 5.2.5.1 − Pairing timetable (beginner teacher with experienced SRP staff)

Participants	SRP staff
P1	SRP 1 (teacher 1)
P2	SRP 2 (teacher 2)
P3	SRP 3 one-to-one staff
P4	SRP 4 one-to-one staff
P5	SRP 5 one-to-one staff
P6	SRP 6 one-to-one staff
P7	SRP 7 one-to-one staff
P8	SRP 8 one-to-one staff

A timetable was drafted to pair each participant with a member of staff from the SRP and agreed upon with the inclusion manager/gatekeeper, providing clarity about who was working with whom. Participants assigned themselves to P1−P8, this also helped to ensure that each participant worked with the same adult for the duration of the phase. Participants were apprised of the expected conduct during the practical phase.

The first day began with an introduction and an orientation around the provision, giving participants the opportunity to ask any questions. Subsequent days commenced with a risk assessment, the day's schedule and a key focus. Participants worked with the SRP staff to identify and rationalise the use of a specific set-up and plan the activity. Together, they developed and adapted the curriculum and timetables. The participants were able to observe and note strategies for inclusive classrooms. In designing this part of the intervention, consideration was made of the historical context of teaching and how teacher education has undergone changes from the workplace apprenticeship model (McNamara *et al*, 2014) in the nineteenth century to higher education academic and theory-based programmes, and in the last few years, has seen a gradual return to a workplace model.

The aim was that participants would make links between Part A and Part B, with key messages from the theory observed in practice. At the end of each day, the researcher convened with the SRP staff to review the day, reflect on what worked and plan adjustments. The final session provided participants with the opportunity to team-teach and co-construct outcomes for pupils using a combination of skills, knowledge, understanding and strategies

from both parts of the training. Apart from the last lesson, the routine was set for predictability on each week, the cycle was repeated each day with a different focus. Phase 2, Part B was aimed at allowing the participants to observe experts at work and gain strategies for their own practice to support inclusion.

The end-of-day evaluation time was critical to the process. It provided the time and opportunity to complete a form to evaluate the day, regarding what was effective and why and what to adjust for the next day. The focus was on resource adjustment. It provided collaboration, partnership and the opportunity to explore the effectiveness of resources.

Table 5.2.5.2 − Example end-of-day evaluation form, jointly completed by SRP and participants

Daily Evaluation   Date:

What did you observe today? What worked?	How will this impact our resourcing and teaching tomorrow? Consider adaptations for Autistic pupils.	Any awareness that needs to be brought to the team's attention?
For example – child B enjoyed role play and cooking in the home corner. Watched other children and joined in. Three focus children spent at least 40 minutes in the water tray area.	Add playdough to encourage cutting and sustain child B attention tomorrow. A key target for them to share and collaborate, so add colour and measuring containers. Make sure there is one less than the number of children, so they can share and take turns.	The SRP staff was focused on exploring if Child B would engage in play with other children and this was achieved. Note that child B's mum does not like him to go home wet. Request more spare clothes.

Table 5.2.5.3 – Phase 2, part B − Practical experience scheduling

Start time	1.30 pm
Introduction and Orientation	Introduction Remit of the afternoon Afternoon risk assessment Complete evaluation of the day about the effectiveness of adapted resources in meeting needs Consider next-day adaptations/adjustments Agree next day's schedule
End time	**3.00 pm**
Week 1	Observing best practice – adult/pupil interaction **Focus:** Use of visual cues and structured learning, predictability and change management Participants will be paired with SRP staff to observe and make notes and ask questions about enabling interaction linked to knowledge and understanding of autism and its characteristics Reflection and adjustments for the next session
Week 2	Observing best practice – Observing group sessions and developing a pupil-centred plan **Focus:** How do staff deliver lessons throughout the day? How do staff use the knowledge of the pupils to adapt activities? **Next step:** Participants to discuss how plans and resources are adapted. Reflection and adjustments for the next session
Week 3	Observing one-to-one support staff– observing a child to gather planning information tailored to specific needs **Focus:** Tailored planning and effective delivery **Next step**: Linked to inclusion, early learning goals in Early Years Foundation Stage, planning is developed following the interests of the learner. What do I know about the pupil? How can I use it to develop plans? How can I maximise the use of visual cues? Reflection and adjustments for the next session
Week 4	Team teaching – Delivering a tailored, well-resourced session for specific pupils **Focus**: Breaking social, language and communication barriers. How do staff use predictability to develop plans? **Next step:** Plan and deliver the next lesson; joint reflection and adjustments for the next session
Week 5	Personalisation – delivering a one-to-one session **Focus**: joint delivery Reflection and adjustments for the next session Evaluation of Part B.

5.3 Conclusion

The training intervention planning involved specific actions intended to address the research problems identified from the literature. The action research training intervention was an efficient tool to offer beginner teachers the opportunity for knowledge exchange, discussion and debates that support new learning in line with the theoretical framework of this study. The planning considered the information gathered from the conceptual framework assumptions and data from the participants' interviews. The intervention was the action chosen by the researcher as a tool to explore. The process of planning and designing this training intervention highlighted the importance of critical thinking and reflection in research. This process has enabled the researcher's increasing capacity to critique and deconstruct previous assumptions about practice in relation to inclusion and autism.

Planning the phases of the training intervention ensured reflection on what to include and why, and how it helped to clarify specifics of the problems and understand how to reduce the impact of the problem on beginner teachers. Selecting the most relevant blocks of knowledge from the vast reserves of information on autism and inclusion, such as the characteristics of autism and how autistic pupils communicate information through behaviour that could be misunderstood, then prioritising them for the training intervention, was crucial. It showed how a researcher's worldview could influence the responses from participants (Greenbank, 2003) and, ultimately, influence the quality of the data collected. The design underwent a series of adjustments, and justification for the choices of data collection tools was reiterated. Answering the research question had to remain a central theme throughout the planning and delivery of the training intervention, thus ensuring a relentless focus on designing a training intervention that enabled robust data gathering (Creswell, 2017), which would only be possible if the tools were aligned to the methodology, shaped by the worldview and able to answer the research question.

Conducting this training intervention showed how educational influence can be applied so that the workplace is more open and democratic (Stokes 2019; Popper, 1945), where beginner teachers feel that their voice can contribute to change and the shaping of policy and practice to improve the inclusivity of all pupils, particularly the vulnerable. The most impactful lesson for the researcher

was the importance of speaking up and challenging orthodoxy. That is, what we refer to as 'facts and truths' can be refuted and replaced by new 'truths' (Creswell, 2017). The researcher intends to use future interventions and research to develop the next phase of skills development as a researcher by investigating how systemic failures impact the inclusion of autistic pupils post-16.

Chapter 6: Pre-intervention findings and discussion

6.1 Introduction

In Chapter 5, an action research training intervention was documented, highlighting how the core principles of the social constructivism theory developed by Vygotsky (1978) enabled beginner teachers to construct shared knowledge through interaction, collaboration and peer learning. The phases of the training intervention closely complemented the action research cycle.

The findings presented in this chapter are based on data collected in Phase 1 of the intervention – before the training commenced – and were analysed using an inductive approach. This phase represents the participants' views before the training intervention. The data was analysed using constructivist grounded theory (CGT) to develop a framework. The participants' experiences and recollections were grouped into themes to establish meaningful connections with the literature analysis and illustrate the findings. The three main themes that emerged from the data collected in Phase 1 of this small-scale action research project are 'Beginner teachers' lack of understanding of autism', 'The complexity of inclusion' and 'Beginner teachers' lack of preparedness'. The discussions of the findings considers each theme. They demonstrate how the researcher's interpretation of participants' responses relate to the themes, the theoretical framework and previous studies.

6.2 Theme 1: Beginner teachers' lack of understanding of autism

Beginner teachers' lack of understanding of autism' emerged as a main theme during the pre-intervention interviews when it became apparent that there were prevalent misinterpretations and mistaken beliefs about autism. It was evident that the participants were aware of this as they confessed to not understanding enough about autism and were positive and open-minded about discussing it.

Within this main theme, some sub-themes that emerged from the data include 'Beginner teachers are unprepared for autism', 'Perceptions that autism is dauntingly complex', 'Teachers' concerns of escalating behaviour incidents',

'Misconceptions of autistic behaviours', 'Increased numbers of autistic pupils' and 'Changing unhelpful assumptions'.

6.2.1 Beginner teachers are unprepared for autism

There is a broad belief that many beginner teachers commence their induction year with little understanding of autism and autistic pupils and that this has led to a difficult start to many teaching careers. The participants in this study described feeling unprepared and overwhelmed, and revealed that they had underestimated the impact that autism could have on their roles as teachers. This left them feeling ill-equipped to include autistic pupils in their mainstream classrooms. Ms Fowler reflected on their experience on entry into the profession,

> *I never experienced autism before my induction year commenced. I try my best; I do not know what to do. I feel helpless and frustrated, it's overwhelming. I actually underestimated the enormity..*

This comment reveals the participant's frustration at not understanding autism enough to feel confident when confronted with autism. Participants' reports of 'feeling helpless' and the sense that 'I do not know what to do' also suggest that a fuller understanding of autism might be important to the broader group of beginner teachers as a means of equipping them to include autistic pupils in their mainstream classrooms. This resonates with Ortega's (2019) study where there was a notion that teachers should be equipped, during their first year, with adequate knowledge and understanding of autism, as well as the skills to effectively include such children in their lessons; thus, implying that this is often not the case.

What has emerged is an absence of understanding of autism or confidence in how to approach it, or, indeed, a significant opportunity to put this right. Therefore, the participant feelings of being 'overwhelmed' might suggest a mismatch between what was expected and what was subsequently experienced.

6.2.2 Perceptions that autism is dauntingly complex

The daunting complexity of autism emerged as a sub-theme as participants confessed to feeling overwhelmed by the apparently baffling complexity of autism

as a condition and linked their lack of understanding to this. They began to appreciate that the spectrum of autism consists of many different interconnected parts, and the lack of specificity added to its perceived complexity. Mr James recalled how they came to know and understand about autism,

> *I've had training as part of teacher training, but even then, it was, sort of, very broad. It was a kind of 'catch all'... not enough to help me to understand and grasp what autism is. It seemed hard…, even before I stepped into the classroom, I was tense…because I think autism is huge and complex.*

These findings indicate that the broadness of teacher training normally offered, which includes scant instruction on autism, means there are too many aspects that remain unknown to beginner teachers during the first weeks and months of their careers. This suggests substantial limitations on the knowledge about autism, even as beginner teachers enter the classroom. There is emerging evidence of tension and anticipation, culminating in the daunting realisation that 'autism is huge and complex'. This can be tracked back to how autism is defined and how it influences the language used by the participant. There is a build-up of complexity attached to the definition, which is unhelpful.

The definition of autism by the Autism Education Trust (2019) is that it is a 'complex, lifelong developmental disability' (p. 9) and it is this type of description that has led to the widely held, somewhat negative view of autism that it is hard to grasp due to its complexity, and difficult to 'treat' due to its 'lifelong' nature. Yet this view persists within the prevailing discourse that feeds into beginner teacher's perceptions of its complexity, and the challenges it presents to the educator. In other examples, Milton (2012) declared that autism requires 'close examination and determination to understand the complexity of living with autism' (pp. 27−29)'; Sanz-Cervera *et al.* (2017) suggested that 'autism is a highly complex and poorly understood area of education (p. 134) and Ravet (2017) argued that 'autism is complex, far from fully understood and requires further examination' (p.3). These perspectives seem to suggest that 'complexity' can mean in the case of Milton, that autism is difficult to live with, while Sanz- Cervera and Ravet warns that it is complex and poorly understood. This study's findings reflect these views as they show that beginner teachers often enter the profession with little understanding of autism but the belief that the condition is dauntingly

complicated, leading to tension and fear. Furthermore, reference to the complexity of autism underscores their lack of understanding of how autism affects the daily lives of autistic pupils.

The participants indicate that the low levels of understanding of autism and perceptions of its complexity appear to be linked to a gap in their training. Training providers are not, routinely, providing the kind of in-depth instruction in autism that would sufficiently equip those joining the teaching profession to effectively include autistic children in their mainstream classrooms. Participants' comments were reflected upon, in accordance with action research practice, and subsequent adjustments were made, in line with the action research cycle. The training plan was adapted; session times were lengthened to give more time for participants' discussions, contributions and debate, co-constructing knowledge in alignment with the central tenets of social constructivist theory.

6.2.3 Teachers concerns of escalating behaviour incidents

Beginner teachers admit to not understanding why autistic children behave the way they do. They expressed concerns of escalating behaviour incidents because of lacking the strategy to de-escalate incidents. For participants, there was a strong association between autism and behaviour. This is because they perceive autistic pupils as unpredictable, and this seems to lead to flawed responses to the behaviours that autistic children display. The participants implicitly perceived autism to be a 'problem' that required solutions beyond the skills that beginner teachers could be fairly expected to possess on entry into the teaching profession. They acknowledged that their reaction to the behaviours of autistic children had the potential to escalate situations that were already challenging, frightening or combative. Ms Anthony described an incident in class that they could not de-escalate without support and how that felt,

> *Suddenly, a child became upset about something that seemed trivial, the situation escalated, I did not know what to do. I feel terrible, I couldn't handle it. A [member of the] support staff from the SRP arrived and, within minutes, the child was calm…, the staff did not look concerned about the child or situation, …I do not know how they do it.*

The participant, clearly, was not equipped to manage the situation in the way that the more experience colleague did, and this example demonstrates something of the difficulties autistic pupils present. This participant indicated feelings of helplessness and even remorse for not knowing what to do to help. Behaviour was also found to be a challenge by Winter (2006) who found that a considerable number (71 per cent) of teachers identified behaviour as a central issue in classrooms and declared that 'It is generally regarded as the group of pupils with autism that presents teachers with the most concerns, and the group that is also the least welcomed.' (pp. 3−5) − an association that was likely to fuel negativity and misunderstanding. Similarly, a high proportion of participants (87.5 per cent) in this action research project linked autism with challenging behaviour.

There are general debates about the focus on autistic pupils' behaviour, including a study by Pellicano (2022) who found the focus on behaviours associated with autism to be 'considerably damaging to the way autism and autistic people have been seen' (p. 326). She suggests that the focus on behaviour, and the misunderstanding of autism, are 'flaws' in the system (p. 382) because the resultant perceptions impact the autistic children themselves. In addition, there are indications of a lack of understanding of how to work with the children and how it can lead to the experience of difficulty, struggle and unsatisfactory outcomes, despite the earnest efforts being made.

Examples from the data collected include a description of an autistic pupil's reaction to an incident and the participant's own lack of intervention ability, which suggests the need, first, for a greater understanding of how the condition can manifest, and second, for training in how best to manage these types of incidents. This beginner teacher seemed perplexed about the behaviour they observed in class and felt that they lacked the understanding and skills to de-escalate what are common situations in this environment. There was evident frustration about the inconsistency of support.

Thus, despite their successful acquisition or mastery of other skills associated with teaching, some might still find themselves unaware of any strategies for managing adverse incidents related to autism in the classroom. Yet those skills are fundamental to their ability to support the children and include them in their classrooms. The findings in this study echo those of Lindsay *et al.* (2013) who reported that non-specialist educators found it difficult to support autistic children

in mainstream classrooms, and most cogently, they suggested that the difficulty is linked to lack of training.

Understanding why autistic pupils behave the way they do is crucial to reducing the struggles and difficulties they encounter. This was an area of focus for the training intervention design and the subsequent adjustments made after reflection and review.

6.2.4 Misconceptions of autistic behaviours

Misconception of autistic behaviours emerged as a sub-theme because by their own admission during interviews, beginner teachers, potentially, have harmful misconceptions about autistic pupils. They have poor perceptions and sometimes assumptions that all autistic pupils will behave erratically or explosively and are likely to be 'unmanageable'. These assumptions have tended to lead to a degree of negativity towards autistic pupils. This, of course, could have dire consequences as, in feeling this way, they are assuming that all autistic pupils share the same characteristics and challenges, and failing to allow for any individualism amongst autistic children. This, again, reveals that beginner teachers have a poor grasp of the breadth of this condition's spectrum. The participants' descriptions of their lived experiences reveal real concern about what they should expect when faced with autistic children in a classroom. Even more potentially damaging, the participants' responses demonstrate that the focus on behaviour was sometimes based on other people's views and other sources. A typical example is that of Mr James recalling other people's experiences, which influence their view,

> *I worry about dealing with situations because people have had scary*
> *experiences. I was warned that two autistic children in the class, when*
> *upset, could kick and spit at other children or adults. In a way, there is a*
> *conflict between what I have been told and the reality of what I*
> *am facing…*

The participant's account points to anxiety about autism and autistic pupils based on an external perspective that may not relate to the participant's reality, but which serves to add to their worries about time spent in the classroom. The misconception, based on hearsay, may never manifest in real life, but the anxiety

takes its toll. Literature offers a few perspectives, Williams *et al*. (2017) observed that the broad lack of understanding of how autism can manifest can result in misinterpretation of information being communicated through behaviour (pp. 13−14). Milton (2012) declared that autism should no longer be reduced to descriptions of certain behaviours and the challenges that autistic pupils pose, arguing that the condition was much more subtle and complex (pp. 27−28).

This study finds that the participants built up tensions and misconceptions about autism prior to their experiences, or from other sources. Garmon *et al.* (2005) suggests that new teachers bring their pre-dispositions and beliefs into the classroom, and this can hinder their ability to include the full range of pupils. She says that these misconceptions sow the seeds of fear of autism and give the impression of threat associated with including such children in mainstream classrooms. This information may represent some lived experiences but also serves to build tension and create self-fulfilling prophecies. Anglim *et al*. (2018) explored the lived experiences of teachers in Northern Ireland in relation to including autistic pupils and found uncertainty due to lack of experience and training. In support of this, Mr James in this study described frustration after spending time at a placement where staff 'pointed out the children who were known to 'kick', instead of offering strategies to support the children'.

This study found that such misconceptions about autistic pupils are prevalent among beginner teachers and that some teacher's attitudes are rooted in their pre-dispositions towards autism. Wood (2019) found that teachers' negative perceptions of the behaviour of autistic pupils result from a lack of understanding of the roots of those behaviours. She suggests that simply understanding autistic pupils better could help, rather than hinder autistic pupils' ability to cope with everyday life in mainstream environments. Most participants in this study confessed to underestimating the significant challenges of working with autistic pupils.

6.2.5 Increased numbers of autistic pupils in schools

The increased numbers of autistic pupils in mainstream schools emerged as a sub-theme when beginner teachers indicated that they feel stress in the classroom with autistic children because they do not understand what causes escalations of incidents. They point to the increasing number of autistic pupils in

mainstream schools, not in a negative way but as an indication that this increases the chance of having an autistic pupil in every class as well as increasing the urgency to be equipped to support them. Miss Abadi explained,

> *I found that almost all classes have an autistic child, a few classes have up to three autistic pupils. This was a shock, and this makes it important to me.*

This participant viewed the potential impact of the increased number of autistic pupils coming into mainstream school reflectively, as a realisation of the changing landscape and their role within it. This study's findings are supported by the Department of Education in England (DfE, 2019) publication that showed that the number of children and young people who had autism as their primary special educational need had increased from 66,195 in 2011/12 to 119,909 in 2017/18. This is an increase of over 40 per cent in less than ten years. Sanz-Cervera (2017) suggests that mainstream schools in England may not be ready to deal with the increased numbers of autistic pupils coming in, and that teachers may struggle to cope. Matthews et al. (2021) later found that the prevalence of autism in England increased from one in 100 children to one in 57 children in 2020. Sanz-Cervera *et al*. (2017) support that with the increasing number of autistic pupils going into mainstream schools, there is increased urgency for beginner teachers to be prepared (p. 134).

This concern did not focus on the numbers joining mainstream schools but on the capacity to cope, by advocating a focus on understanding the children, how autism is manifested, the struggles and barriers that autistic children face, and the mitigations adopted to support them. There is an indication that the participants' inexperience and lack of knowledge played a big part in their self-perception of being ill-equipped.

6.2.6 Changing unhelpful assumptions of autism

Beginner teachers commonly regard autism as a disorder, a view that is perpetuated through the diagnostic tools. This implies that the autistic pupils, themselves, are 'disordered' and this label has had a significant impact on the way autism is viewed historically. It implies a problem that needs to be solved.

There is a link between this damaging view and the way participants perceive the children. Mr James detailed concern about two children,

> *With two autistic children in my class, I don't want to say that there is something wrong with them, …I assumed… I don't know how to help. I want to learn how to help.*

The findings suggest that initially, participants assumed that there is a problem with the autistic children that needs to be resolved. The use of 'I assumed' means that they have treated information as a true account without checking for accuracy. Milton (2012), a researcher, who is, himself autistic, challenged the idea that 'everyone identifying as autistic has to face stigma and stereotyping' (p. 27). There is an overwhelming fear of the unknown. Hodge (2016, p. 175) argues that labels are disabling and dehumanising. This was echoed by Wood (2019) who said that because of the way autism is attached to notions of 'disorder', it labels all autistic pupils and damages the way the school community views the children. There were elements of reflection and regret due to a lack of understanding of autism, yet also a willingness to acquire knowledge to properly support and include children with autism in lessons.

6.2.7 Conclusion of Theme 1

The above exploration of the theme of beginner teachers' lack of understanding of autism provided the rationale for the training intervention aimed at better equipping beginner teachers for inclusive practice. The findings indicate that some beginner teachers struggle to manage autistic pupils' behaviour because they have not been trained specifically to support them.

With the caveat that the findings cannot be generalisable enough to draw broad conclusions, it can still be deduced, from the participants' responses, that an understanding of autism is regarded, by beginner teachers, to be crucial to the skill set of any classroom teacher. The interrogation of this theme provided a greater understanding of the influences affecting how beginner teachers feel about their own readiness to include autistic pupils in their mainstream classrooms.

Evidence presented in this small-scale action research project is not conclusive enough to suggest that beginner teachers' perceptions of autism, or that

equipping beginner teachers for inclusive practice, are fundamentally influenced by the themes discussed in this chapter. However, there is sufficient evidence to indicate that the sub-themes are seen as crucial to beginner teachers when considering the factors that impact their inclusive teaching practice.

6.3 Theme 2: The complexity of inclusion

The complexity of inclusion emerged as a main theme because the concept of inclusion is complex and considered to be challenging to achieve, yet, the beginner teachers, at the start of this study, were found to have acquired few, if any, strategies for establishing inclusive practice. In addition, they confessed to knowing little about existing inclusion legislation or the implications for their teaching. The participant beginner teachers in this research recognised that they needed training to be equipped for inclusive practice.

This section of the chapter collates the beginner teachers' recollections of the influences on their inclusion understanding and practice. As before, within the main theme of the complexity of inclusion, sub-themes and underlying factors emerged from participants' responses. The sub-themes that emerged are 'Participants defining inclusion', 'Raising expectations' and 'Legislation knowledge'.

6.3.1 Participants defining inclusion

The beginner teachers agreed that inclusion is complex and challenging but is also something one should continually strive to achieve. However, they found the concept hard to define, but there gave examples of how they understand inclusion. They also perceived that there are many interpretations of inclusion, which makes it difficult to implement and leaves it open to misinterpretation. For example, some participants linked inclusion to the curriculum while others said it was about integration into mainstream school. At least one participant indicated that inclusion is the 'opposite of exclusion'.

The participants expressed an interest in acquiring a deeper understanding of the concept of inclusion, recognising its complexity, yet remaining optimistic that it was a concept that could be mastered. They saw that despite their ITE, they felt

ill-equipped to implement inclusion successfully in their own classrooms. Mrs Amin described their understanding of what inclusion means,

> *Inclusion is the opposite of exclusion. I could find out more, the more I try to find out, the more complex it is...the practice is complex to understand without training.*

This finding suggests that beginner teacher had tried to interpret inclusion to the best of their ability. Miss Basher says '…inclusion seems easy, but I think it is very complex'. Schuelka (2018) stated that inclusive practice fosters belonging, embraces and values every child's uniqueness and can deliver equal opportunity and access in the classroom, when it is effective.

This study has found that inclusion in education has been defined in multiple ways, with no agreed definition, which means that the interpretation could vary depending on context and understanding. The lack of a universally agreed definition adds to the complexity of inclusion, as suggested by participants. Booth and Ainscow (2011) found that teachers saw inclusive education as simply something they were told to do, often without support or resources and that 'inclusion is increasing participation for all' (p. 240). Chamberlain (2017) recommended that teachers be provided with as many strategies as possible to help them become more effective in including and supporting autistic pupils (pp. 47−53). Rouse (2017) suggested that there are issues around preparing beginner teachers to include autistic children and that they arise from a general lack of clarity and understanding of the fundamental definition and meaning of inclusion itself.

6.3.2 Raising expectations of autistic pupils

The beginner teachers acknowledged a poor perception of inclusion at the outset of this study. They saw that not having high aspirations for what autistic pupils can achieve comes from a combination of not understanding autism as a condition, coupled with a poor perception of their own ability to include the children. This meant that they did not feel able to interpret the needs of the autistic pupils or provide adequately for them in the classroom. As a result, they would set work that assumed that autistic pupils were not capable of achieving the same as their peers. Often, the focus was on non-academic learning, which hinders

positive attitudes to inclusion and could result in behaviour manifestations. Ms Anthony explained,

> *They could not access the curriculum, so behaviour was poor in class, I gave them something very different to do. I want to help the children by knowing what they are capable of doing but their levels are too low.*

This study found that this beginner teacher's lack of experience and knowledge of autism had led to them assuming the child's abilities to be very low, demonstrating the potential impact on autistic children of a lack of preparedness to teach autistic pupils in general. There is some indication in the collected data of unintended, unambitious attitudes towards autistic pupils due to both poor perceptions of autism and a lack of strategies for inclusion. In a loosely related study, Chamberlain *et al*. (2017, pp. 47−53) found that teachers can be sceptical about the possibility of providing autistic pupils with inclusive support.

It was found that there is a need to provide beginner teachers with relevant strategies and training for inclusive practice. Booth and Ainscow (2002) argued that teachers need to be provided with structured training to support inclusive practice. This study's findings agree with their argument that a training framework would be beneficial.

6.3.3 Knowledge and understanding of SEND legislation

The beginner teachers confessed to knowing little about existing inclusion legislation that protects children. They wanted to understand more about the requirements of legislation and play a role in implementing it to benefit the children, as well as to enhance their professional confidence.

Though they knew of the existence of the Equality Act 2010, they admitted to struggling to understand how it relates to the inclusion of autistic children, and none of the participants had much knowledge of the Special Educational Needs and Disabilities (SEND) Code of Practice (2015). Booth and Ainscow (2014) posited that for successful integration of inclusion, teachers must pay attention to recognised legislation that protects children and build it into their own practice. Recounting familiar legislations known, and explaining why some may be less familiar, Mrs Amin stated,

I have some understanding of the Equality Act 2010 and the need to provide equal access to the curriculum, but it is often a struggle because I do not know how. I am not familiar with the . My training did not focus on legislations.

This participant, evidently, had a vague knowledge of the Equality Act 2010 and other inclusion legislation, but this was not an area they had studies at university or during school induction. Beginner teachers in this study indicated a desire to better understand the legislation surrounding inclusion; for example, the Equality Act 2010. There were suggestions, from the initial interviews, that equipping participants for inclusive practice should involve explicit training on the legislation that underpins inclusion as there were implied knowledge concerns linked to performing professional duties. Participants felt that it is essential to understand the Equality Act 2010 and the SEND Code of Practice (2015) to be equipped for inclusive practice and providing autistic children with the inclusive education outlined in the legislation.

6.3.4 Conclusion of Theme 2

The findings in this section focused on the complexity of inclusion and covered the importance of knowing and understanding the legislation that underpins inclusion. The action research training intervention plans were adjusted to incorporate the outcome of the Phase 1 interviews that highlighted what participants viewed as relevant to equipping them for inclusive practice. The discussions that followed suggest that the beginner teachers were willing to support the autistic pupils and saw the relevance of including them in the classroom. However, they also perceived an overwhelming challenge involved in delivering inclusion because of its complicated components. Schuelka (2018) argues that inclusion is a way to identify, understand and breakdown barriers. The examples explored under this theme point to participants not having the skills to break down barriers. One participant did not appear to be able to identify or understand the problem, instead said, 'I did not know what to do'. The matter of inclusion being complex to understand includes the laws that govern inclusion. Participants, in general, seemed keen to play a part in adhering to inclusion laws. The extract indicates that there is interest and willingness to be instrumental in implementing the legislation that underpins inclusion because they could foresee

the benefit to the pupils and to their professional competence. One of the main factors they identified was the need for training that would equip them with strategies to deliver inclusion, improve their perception of autism and increase their confidence.

6.4 Theme 3: Beginner teachers' lack of preparedness

Beginner teachers' lack of preparedness to teach autistic pupils emerged as a main theme in this action research project because participants felt that their prior training was inadequate in this area, and they believed that the development of their professional confidence was hindered because of this. The participants declared that inadequate training had made the commencement of their teaching career difficult.

Some sub-themes emerged from the main theme data, and they are 'Insufficient training at ITE and school induction', 'Beginner teachers' willingness to learn', 'Autism training not allocated sufficient time at ITE' and 'Pedagogy'.

6.4.1. Insufficient training at ITE and school induction

Insufficient training at ITE and school induction emerged as a sub-theme because participants shared their experiences during the interviews and implied that the lack of preparedness could be linked to how the training did not explore autism. Explaining how teacher training at all levels, from university to school employment, placed priority elsewhere instead of training, which has resulted in struggling at entry into the career, Miss Basher reflected,

> *In my teacher training, there was no exploration of the meaning…I struggle with supporting the autistic children… The school induction focused on school priorities… and CPDs have not addressed autism directly.*

The participants' pre-intervention view suggests that neither ITE, school induction nor CPD prepared them to support autistic pupils. Humphrey and Hebron (2015) found that teachers need strategies to support children, and Florian and Rouse (2009) pointed out that the task of ITE is to prepare student teachers to enter the profession. There are indications that the participants felt that the very system that should equip them, failed them. In addition, there was a prevailing view that

inadequate training had contributed to their negative perception of autism, and they strongly indicated their convictions that the action research training intervention would equip them better for inclusive practice. They reflected on their prior experience of training and cited examples of improving knowledge.

Participants indicated that while ITE, placements and school induction did cover the general teaching of neurotypical children, they did not equip them to effectively teach autistic children. The definition of effectiveness for the purpose of this study is 'the degree to which something is successful in producing the desired result'. They acknowledged that they needed teaching strategies that support the inclusion of autistic pupils. They showed a desire to acquire more knowledge that would help them when supporting these children. Equipping beginner teachers to include autistic children in their mainstream classrooms is central to one of this study's research questions.

6.4.2 Beginner teachers' willingness to learn

Beginner teachers' willingness to learn emerged as a sub-theme because participants in this study implied willingness to support the children better, and believed it was possible, with the right knowledge, and were open to advice. Beginner teachers are often juggling a wide and complex range of issues relating to matters outside the scope of this study while possessing knowledge of few strategies to deal with them. However, all participants appeared positive, open-minded and willing to learn more about autism. Their newfound awareness of the damaging effects on students of stigmas attached to autism compared well with their pre-intervention levels of understanding, with a potentially positive future impact on their practice.

Within the data, there is an overwhelming impression of willingness and desire to learn how to support autistic pupils in their classrooms. The stress and anxiety expressed by some of the beginner teachers suggest frustration with the lack of understanding or preparedness to perform professional duties. They evidence considerable emotion, including anger about not having the ability to help. Miss Abbas offered some explanation that demonstrates willingness,

I want to know about autism and not depend so much on what I have heard. I am willing to try my best. Giving up on the pupils is not optional, willing to do what it takes.

The findings suggest that beginner teachers in general, and this participant in particular, want to support the children in their classroom. They struggle with, and show frustration about, the 'unknown' and the gap in their knowledge of autism that could be crucial in supporting pupils. There were indications of impatience at times, due to their growing awareness of the impact that the knowledge gap has on the pupils as well as themselves. Humphrey and Symes (2013) also found that teachers had a strong willingness and commitment to developing their expertise. The indicated desire to understand autism in order to support the children suggests that training can equip beginner teachers with the relevant knowledge. Training emerges as the perceived best route to equipping beginner teachers for inclusive practice that can radically change the experience of education for autistic pupils.

6.4.3 Autism training not allocated sufficient time at ITE

Beginner teachers indicated that ITE programme planning did not allocate enough time to the teaching of autistic children. The participants suggested that the training before commencing their teaching role did not equip them for inclusive practice because too little time was committed to it, it was too broad, it lacked exploration opportunities that could deepen understanding and was unclear. They insisted that there was no specific inclusion training. Miss Abbas said that 'the training allocated too little time to understand and explore autism and there was insufficient focus on autism'. They indicated a willingness to support the children but desired the confidence that is gained through strategies that will support the pupils. They admitted that having only one lecture on autism during teacher training was insufficient for preparing them to commence their teaching career. Ms Fowler highlights the seemingly short time,

We had only two and half hours of theory-focused training specific to autism, most of it seemed to focus on behaviour, then I had a placement at a special school that was more behaviour and not autism provision.

The participants' responses suggest that they needed much more in-depth knowledge about autism and autistic children. This study found that they showed interest in learning some practical strategies for communicating with and teaching autistic children so that they could confidently include them in their mainstream classrooms. Miss Abbas said, 'The training allocated too little time to understand and explore autism'. Miss John added, 'During teacher training, we had only one lecture, then we embarked on planned placements which lacked clarity or explanations'.

Avramidis *et al.* (2017) criticised ITE for not dedicating more time to preparing beginner teachers for this crucial role, and there are clear indications in this study that the participants did not feel that the short time dedicated to autism training was sufficient, and the training was, at best, incomplete.

The consequent focus of this study on the content of training programmes was inevitable. Malinen (2012) wrote that because teaching is so fundamentally important to society, teacher training should dedicate time and effort to the preparation and development of competencies that empower new teachers to act professionally and competently. The participants reported that lectures did not provide the opportunity to explore autism and there was an indication that it was, therefore, not possible to understand or plan for teaching autistic children based on prior training.

6.4.4 Pedagogy

Pedagogy emerged as a discrete sub-theme because beginner teachers strongly suggested that a lack of variety in teaching methods contributed to the difficulties they experienced as they entered the teaching profession. They wanted the opportunity to explore a range of teaching strategies. Miss Abbas expressed the hope that the action research study would provide adequate methods to work with children, implying that it was not incorporated into teacher training, which includes, in this case, school induction and CPD,

> *I just want a method that will work for the children…that could be incorporated into our training, anything that works. I hope the action research intervention can help.*

This study found that participants felt their prior teacher training and school experiences did not provide practical methods that would help beginner teachers to include autistic children in mainstream lessons. It also found that the participants wanted to succeed as teachers and were willing to try out new ideas and approaches to help the children achieve positive outcomes. The participants were hopeful that the action research project would help to strengthen their practice. Barber and Mourshed (2007) wrote that 'the quality of an education system cannot exceed the quality of its teachers' (p. 13), which supports this study's assertion that schools and universities need to do more to improve our education system by training the next generation of teachers more thoroughly to equip them for inclusion.

6.4.5 Conclusion of Theme 3

Participants felt that the planned placements in their ITE did not provide the exposure to, or opportunity to work with, autistic children prior to commencing the profession. In addition, McNamara (2015) declared that the training needs of new teachers were low in the training schools' priorities. Findings also suggest that beginner teachers' willingness to develop their skills is often overshadowed by a focus on behaviour. Participants found their school placements useful, but that at least one needed to have been in a unit or school with autistic pupils. They felt that working with a range of colleagues and professionals to provide well-planned experiences, particularly in specialist settings, would allow trainees a significant opportunity to learn about a range of needs and observe specialists in action. However, ITE did not build into their training programmes any structured and assessed placements in special schools or mainstream schools with SRPs. This study found that beginner teachers were critical of the lack of precise focus and effectiveness of their placements.

The SEND Code of Practice (2015) states 'high quality teaching that is differentiated and personalised will meet the individual needs of the majority of children and young people' (p. 25). Chamberlain (2017) found that teaching autistic pupils, however, requires specific pedagogical instructional approaches, teaching practices and strategies, which constitutes gaps in the knowledge of teachers from the sample that participated in the study. They recommend that teachers need to be provided with as many strategies as possible to help them

become more effective at supporting autistic pupils. Payne (2018) states that pedagogies can build on prior learning and experience and involve a range of techniques, guided learning, individual activities and assessment for learning. '…depends on what teachers do, their knowledge and understanding, their beliefs and why they act as they do' (p. 89). Payne (2018) adds that theorists like Vygotsky (1978) whose social constructivist pedagogy is a blend of teacher-guided and pupil-centred learning, focus on the belief in a collaborative process between pupil and teacher, for example, group work, teacher modelling, questioning and pair and whole-class instruction.

This study found that participants embraced any methods, strategies or pedagogical approaches that incorporate a range of options for including autistic pupils and could provide them with techniques that would improve their practice.

One participant commented that school induction programmes did not prioritise their training needs and they expressed concern that there was no specific focus on enabling them to understand autistic pupils, particularly through practical experience that would provide immediate skills for supporting their needs. They voiced that their school induction was inadequate at focusing specifically on their needs; it, instead, focused on school priorities. Another participant added that school CPD programmes also focus on school priorities without consideration for equipping them for real-world classroom experiences with autistic pupils. They suggested that they need bespoke, specialised training to gain knowledge, understanding and confidence. There were suggestions that linking inclusion policy to classroom practice is difficult for beginner teachers because schools do not seem to place their training needs at the centre of CPD and that school CPD was focused on school priorities without much consideration for the specific needs of the beginner teachers. Participants, therefore, felt a need for confidence in their ability and the knowledge and skills in inclusive education to meet the challenges that they will encounter in the present school climate.

6.5 Conclusion

This chapter presented the findings based on data collected in Phase 1 of the intervention, which was before the training started. The phases of the action research study are rooted in the principles of the cycles of action research and

align with social constructivism. The themes are explored through the understanding of the Vygotskian (1978) views of how knowledge is constructed.

The first theme explored provided the rationale for the training intervention aimed at better equipping beginner teachers for inclusive practice. The findings suggest that beginner teachers struggle to manage autistic pupils' behaviour because they have not been trained specifically to support them. From the participants' responses, it can be inferred that an understanding of autism is regarded, by beginner teachers, to be important to the skill set of any classroom teacher.

The second theme focused on the complexity of inclusion and covered the importance of knowing and understanding the legislation that underpins it. The participants indicated that they were keen to support autistic pupils and felt that inclusion was important. They also perceived an overwhelming challenge involved in delivering inclusion because of its complicated components. They wanted to be instrumental in implementing the legislation that underpins inclusion because they could foresee the benefits to the pupils and to their professional competence. They saw the need for training as a key factor that would equip them with strategies to deliver inclusion, improve their perception of autism and increase their confidence.

In the third and final theme, participants suggested that the planned placements in their ITE had failed to provide sufficient opportunities to work with autistic children prior to commencing the profession. In addition, placement opportunities had not been matched well to individual trainees. Although participants found their placements useful, it was felt that more time should have been allocated to gaining experience in a unit or school with autistic pupils that would provide a significant opportunity to learn about a range of needs and observe specialists in action.

Participants also felt that school induction programmes did not prioritise their training needs and instead, focused on school priorities.

Likewise, participants indicated that school CPD programmes focussed on school priorities without consideration for equipping them with real-world classroom experiences with autistic pupils. They believed that there was a need for specialised training that was bespoke to their needs to gain knowledge, understanding and confidence to include autistic pupils in

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mainstream classrooms. he next chapter focuses on the findings that emerged from Phases 2 and 3 of the training intervention.

Chapter 7: Intervention, findings and discussion

7.1 Introduction

In chapter 6, the pre-intervention findings and discussions presented beginner teachers' views before the commencement of the action research training intervention. The themes explored provided the rationale for the action research training intervention.

In this chapter, the findings and discussions are centred on the data collected during the phases two and three of the training intervention. The data was analysed using aspects of constructivist grounded theory (CGT) to develop a framework that aligns with the social constructivism and action research methodology.

The three main themes that emerged from the data collected in phases two and three of this action research project are: 'addressing the misconceptions of autism'; collaborative learning opportunities' and 're-evaluating professional practice'. The findings represent beginner teachers views during and after the action research training intervention and it captures the perceived impact of the training intervention.

The findings in this chapter are not explicitly mapped to the research questions, the limitations and contributions to the existing body of knowledge because these will be discussed in the concluding chapter of this thesis.

7.2 Theme 1: Addressing the misconceptions of autism

Addressing the misconceptions of autism emerged as a main theme from the interviews that took place at data collection points during and after the training the action training intervention. The data that emerged from participants' interviews suggested that that misinterpretations of autism contribute to the poor perceptions of autism. Beginner teachers reported making connections between what they learned about the theory of autism in the first five weeks with the practical reality of seeing the adults interact with the autistic children in the SRP in the next five weeks. There was indication that the theory training helped them to understand the characteristics of autism, how it affects the children and how it is manifested by the autistic children. A few sub-themes emerged from the main

theme, and they are: 'Understanding autism', 'Understanding the behaviours of autistic children' and 'A gradual shift from harmful assumptions of autism'.

7.2.1 Understanding autism

Recognising how crucial an understanding autism, which includes the characteristics are to beginner teachers helps to explain why the action research training intervention was perceived as useful. Following the phase two interviews, the participants suggested that the theory intervention helped deepen their understanding of some key characteristics of autism and the challenges faced by the children. Mr James shared an example of their experience,

> *With the five weeks of theoretical training, I learned a lot about the characteristic of autism and realised how little I knew… we have learned quite a few useful strategies to help the children in the classroom*.

The statement implies that the participant found the theory training useful because there is an indication that they did not previously knew this much about autism and the characteristics of autism. Sanz-Cervera *et al.* (2017, p.134) found that understanding autism equips teachers with strategies to improve their ability to support autistic pupils. This realisation of the characteristics of autism, resonated with the participant, 'how little I knew', indicates previous knowledge was very little in this area. It highlights the relevance of training.

In addition to acquiring some understanding of autism, there is a suggestion that there are useful strategies that will support the children in class. There are a few noteworthy points: the first is that understanding the characteristics of autism is being linked to the theory training, the second is that learning about the characteristics of autism is regarded as relevant to the participant and that they learned other useful strategies they claim to help the children in their classrooms.

These findings although not generalisable, is linked to finding by The All-Party Parliamentary Group for Autism in England, who found that 60 per cent of autistic students believed that having teachers who understood autism was the main thing that would improve their experience of school (2017). The theoretical knowledge gained from the part A is useful because it helps the participants to have insights into what works for each child. The feedback from the autistic students show an awareness of and appreciation for teachers who have strong

knowledge of them. In a school setting, knowing the characteristics of autism means better interaction with the children. Social interaction is a bedrock of social constructivism, through the mutuality of interaction, shared understanding is fostered (Vygotsky, 1978). From the participant, one can discern a growing confidence, meaning that they are reflecting on their starting points and evaluating how the 'few useful strategies' will help, which aligns with the action research cycle of 'reflection and review'.

Remaining with the sub-theme of understanding autism, following the hands on practical visit to and spending time with the staff, beginner teachers suggested that they encountered unexpected aspects of autism that would have been helpful to have known beforehand, indicating a need for practical and hands-on training experience ahead of the commencing the profession. Miss Abbas recounted the time spent at the SRP and how making the link between the theory learning about autism and the practical inclusion of the inclusion of autistic pupils was perceived,

> *Certainly, a change in mindset. I reflect…very powerful tool. Changed my perception in many ways, through the opportunities and forum provided by the training, we discussed many aspects of autism.*

The five weeks spent working with SRP staff resulted in 'a change in mindset, …was a powerful tool' the participant went on to declare that ' the opportunity' and 'forum provided by the training' enabled discussions about …'many aspects of autism', which aligns well with the theoretical framework of the thesis, that underpinned the design, enabling opportunities for interaction and collaboration to enable shared knowledge creation and understanding. There are suggestions that action research training intervention provided participants with both theoretical understanding of autism − such as the characteristics and how autism affects autistic pupils – and practical experience in the classroom. It seems to have resulted in a perceptible 'mindset change'. In support of this, Ravet (2018) predicted that 'understanding autism well will be a recipe for teacher inclusion success' (p. 680). There is an indication that the session was a powerful tool for understanding the children. The participants alluded to discussions about the practice of inclusion that was being observed, the 'forum' to discuss and learn, which is a powerful social constructivism tool deployed in the planning of the training.

7.2.2 Understanding the behaviours of autistic children

Understanding the behaviours of autistic children emerged as a sub-theme from the main theme of addressing misconceptions of autism because during the interviews, beginner teachers that participated in the study implied that they find managing the behaviour of autistic pupils daunting. They cited behaviour as a concern and priority during the phase one interviews. It was therefore important to seek their views following the theoretical learning phase about behaviour perceptions. The participants recalled what was interesting to them about that training they had attended for five weeks, particularly because the training included understanding the barriers and challenges associated with autism and the barriers to their learning and that they reflected on that fact that a large part of it involved the challenges the autistic pupils face, which they were not aware of. Mrs Amin explained that,

> *There is the awareness of the need to give the children more time to respond in class. Being patient is very important. I would never have thought that makes a difference.*

The participant implied a realisation of what the autistic children experience and their lack of awareness because they have not taken time to understand the children, but ultimately, it suggests that they enter a profession unprepared to tackle they challenges they face. There seemed to be an insight into a different way to see behaviour being manifested by the children, 'being patient with the child', implies experience of escalating a situation through impatience. In addition to being patient with the child, a renewed awareness that 'patience could make a difference' between escalating a situation and understanding it.

In a later study, Pellicano (2022) found the focus on behaviours associated with autism to be 'considerably damaging to the way autism and autistic people have been seen' (p. 326). However, whilst my earlier findings does not disagree completely with her perspective, it presents the behaviour focus from a different perspective, relating it to training need, instead of the intention to damage the children. '…I would never have thought …being patient …makes a difference' comes in my perspective from lack of understanding because of training. This also links with design of the research which employed social constructivism enabling the training and interaction between peers to create shared knowledge of autism. The participants reaction suggests a realisation that 'being patient is

very important'. There is a commitment that changes no matter how small makes a difference. This is not a generalisable claim of new knowledge, instead it is an acknowledgement that the training was meaningful for the context of the school and to the individual beginner teacher.

Continuing with the sub-theme of understanding the behaviours of autistic children, following on from the theoretical phase of the training intervention, it was necessary to explore any changes in perception as a result of the further five weeks spent at the SRP, observing, collaborating and reviewing effects of actions taken with the staff. Recounting the experience from spending five consecutive weeks, working alongside experienced SRP staff, Ms Anthony said,

> *Focusing on their strengths. Having two autistic children in my class means I have really benefited from these sessions. I appreciate the SRP staff, now that I understand what the children do and why.*

There is an impression that this participant's perception has moved to 'focusing on the strengths' of the autistic children. The citing of the two children in the class and they themselves 'benefitting from the sessions'. There is the implied appreciation of the SRP colleagues, and the use of '…now that I understand what the children do and why' is an indication of previous possible misunderstanding of autistic expression or communication through behaviour. The comment 'I have really benefitted from the session' suggests an identification of the source of the knowledge gained to the training sessions attended.

The findings in this study is not dissimilar to Sanz-Cervera et al. (2017) who found that knowledge gaps in autism and misconceptions of autism in student teachers recommend that preparing new teachers for autism at university, may not have had the impact expected and they the link in understanding and misconceptions to lack of training. This study agrees with the recommendation for training and adds that in relation to this study, this participants description of their experience in the SRP strongly implies some change in practice from the training and exposure to hands-on inclusion practice.

Through this sub-theme of understanding the behaviours of autistic children, there seemed to be a gradual shift in the views of participants P4 and P5, after the theoretical training about autism and how inclusion can be effective, there were references to changing habits and being 'patient'. The view has shifted even

more post intervention to 'focusing on their strengths', a marked difference from the starting point. The lack of training in this area during the beginner teachers' university placements appears to have left them under-skilled. Therefore, there is some evidence that the training has contributed to improved inclusion ability.

7.2.3 Challenging assumptions of autism

The sub-theme of a gradual shift from unhelpful assumptions of autism emerged slowly but definitely from the data of the main theme of understanding autism the statements and recollections of participants suggested a shift from precious assumptions. An example extract from the descriptions by participant (P3) after the training intervention,

> *I don't think I was as equipped as I initially assumed. But after learning about the diagnostic tools,… then learning about how the children are affected, I also know now that they are autistic, that is who they are. I am more careful and thoughtful about how I use instructions in class. I scaffold better and have better outcomes. I know what to do if any change occurs.*

This participant appears to reflect on their position on entry to the profession, and perhaps before participating in action research project, that 'I do not think I was as equipped as I initially assumed'. An indication of overestimating their preparedness at some point, now realising the assumption of being prepared was premature. The participants attention turns to learning from the action research theory session about the 'diagnostic tools', then learning about 'how the children are affected, then drawing on previous assumption of autistic children, 'I also know now that they are autistic, then affirming 'that is who they are'. The next phase was the commitment to what they have learned, ' I am more careful, and thoughtful …about how I use instruction, a nod to knowing the characteristics of autism and finally, the extract ends with renewed confidence, 'I know what. To do if any changes occurs'. These findings endorse Milton's (2012), frustration and argument that idea that 'everyone identifying as autistic has to face stigma and stereotyping' (p. 27). There was seemingly a sudden realisation that the labels have impact, 'they are autistic, that is who they are', almost admitting being unaware of this previously. However, it underscores the issue around training of beginner teachers and readiness on entry into the profession to recognise the

behaviours that could be communicated by autistic children and have ready strategies and ability to 'scaffold better' to meet needs.

Aligning the study to the social constructivist belief in planned action for improvement, enabling clear strategies to be gained and building a bridge and continuum between theory and practice is potentially adding new knowledge to the existing body of knowledge and equipping beginner teachers for inclusive practice.

Revisiting the same sub-theme after the participants have spent time at the SRP was inevitable, there was a need to compare the view and any changing perspectives or perceptions of autism and attitudes towards autistic children, if any emerged. Considering social interaction and meaning-making are fundamental to social constructivism, it was important to gather any further shifts in views. Miss Abbas shared their understanding after completing the cycle of the training intervention about what is understood about autism,

> *I understand what the autistic child goes through, and how it affects them. I realise how unaware we must have been before the training, and how unaware we were about how it affects the children… they do not deserve the stigma after what I have learned, it is damaging.*

There is the similarity with the response from (P3) that implies an understanding of autism, how it affects the children, and reflects of 'how unaware' 'we' referring to the collective participants must have been before the training. There appeared to be future realisation 'how unaware', 'we', must have been about the how autism affects children. And finally, referencing the 'the children do not deserve' the stigma. The findings align with Hodge (2016, p. 175) who argues that labels are disabling and dehumanising. There seemed a shift in views after the fifth week at the SRP to more sympathetic understanding of what it is like to be autistic. Milton's (2012) has advocated for a change in the way autistic people are labelled and stigmatised. The participant's assumed realisation and reflection that emerge seemed to have had incremental acknowledgement linking the theory learning to practically observing them interact with SRP staff and they themselves collaborating with the staff to reflect on their learning can have positive effect on perceptions of autistic children and lead to change in practice.

The context of this extract is significant because it was during the post intervention group interview conducted by the participants themselves. They sought each other's views about the interventions. Throughout the action research project, the researcher sought as much fidelity to the opportunities and flexibility offered by the extendable model and cycle of action research and used it to deploy the vision of aspects of social constructivism and the Vygotskian (1978) learning theory. This study built on previous studies by planning and delivering a training intervention that was in part co-constructed with the participants through well-planned strategic data collection points that mostly mirrored the action research model cycle, albeit the extension and anchored the study with social constructivist worldview. The responses from participants suggests changes in practice when the accounts of participants MISS ABBAS, P2, P3, P4 and P 5 are taken as a sample from eight participants in this very small scale action research project that by the size and localised scope, did not set out to be generalisable, instead it aimed to contribute new knowledge to the educational field and enhance the professional practice of beginner teachers, whilst learning a humbling lesson about how easily school leaders like the researcher can lose focus and spiral into deskilling teachers but be brave enough to listen to hard messages that come out of a study.

7.3 Theme 2: Collaborative learning opportunities

Peer collaborative opportunities emerged as a main theme in this action research project. The findings suggest that beginner teachers would benefit from greater opportunities to work with their peers and share strategies that work. There are indications that participants would like the opportunity to explore complex concepts collaboratively, alongside peers, enabling them to learn from each other, which aligns with the social constructivism approach of this study. Vygotsky (1978) insisted that social interaction plays an integral role in creation of knowledge. Participants said that a large portion of their teacher training represented missed opportunities for them to collaborate with peers. Moreover, collaboration is central to the theoretical framework of this study, which enables interaction. Participants said that collaboration provided time to share ideas or seek clarification about what they were observing.

Sub-themes emerged from the main theme of collaborative learning opportunities, and they are: 'Dedicated learning opportunity, 'Observing experts in inclusive environment', and 'Time allocated to engage meaningfully in action research'.

7.3.1 Dedicated learning opportunity

Dedicated learning time echoed throughout the reflections and recollections of the participants and emerged as a sub-theme to collaborative learning opportunities. The participants reflected on the opportunity to work together offered by the training, they implied that the going through the training materials, and training handouts and post lesson activities (see appendix 4), would have been impossible without the opportunity to work together.

In the light of the completion of part A of phase two theory learning, participants recalled what they found as the 'significant aspects of the training' from their own viewpoint. They indicated specific learning points such as ample opportunities for pair and group work that helped shared understanding through discussion. Participants (P2) explained,

> *It was good to have dedicated learning opportunity to explore the meaning of autism and go beyond the surface to in-depth characteristics. We looked at symptoms. Having the handouts, activities and opportunity to reflect on how I should plan resources. I was more equipped.*

Participants implied that having the opportunity to explore autism together with colleagues seemed useful to co-constructing their knowledge of autism 'in-depth'. The implied meaning of 'I was more equipped' is increased confidence in ability, which was perceived as lacking previously. Ravet (2016) who states that the training is essential for teachers to understand autism, but the opportunity is missed by ITE and schools. Participants' perceptions of the opportunity to work together was again explored with participants following the five weeks at the of the training intervention at the Special Resource Provision (SRP) for autism, where they had the opportunity to observe the SRP staff at work with the children, opportunities to evaluate action at the end of the day in line with the action research model adopted and the theoretical framework of the study. Miss Abbas shared their experience of the SRP visits after five weeks:

I have gained a lot of knowledge and …paying attention to the child, I am keen to incorporate what I have learned. I feel more equipped, and I know that routine is key, the day management has to be clear, less stress. I will use what I learned from the SRP staff.

The participants' reflections show increased confidence and clarity of what they have benefited from the experience, they are more precise about what will be useful in their inclusion practice, 'paying attention to the child', 'incorporating what I have learned'. This was evidenced by Parsons (2020) arguing that 'SRPs provide the much-needed targeted support for autistic children, than would regularly be available (pp. 770−789)'. There preciseness of the changes intended by the participants show willingness and emphasise on 'routine is key', Ravet (2016, pp. 714−733) found a link between exposing teachers to practical inclusion and confidence on entry into teaching. There is an affirmation 'I will use what I have learned' from the participants that shows that observing experts at work, which underpins social constructivism and reflecting on actions, which is detailed in action research cycles supports understanding. Mr James also shared their experience, but this was after the theory phase,

We had interviews with the researcher, as well as participant-led interviews. We had training once week. It focused on different understanding of autism and inclusion. We worked in pairs and in groups. We had opportunities to work together and make conclusions about concepts we were exploring. I had to present a task − something I had tried in class − to the group. On another week, I co-presented with a colleague. We had time to plan and present. It was good learning, and it was easy to see how trying out instructions in small chunks helped the children, using the visual timetable and cue cards – sending them home was also interesting.

The participant's response implied the opportunity to learn with peers was vital. This reflection shows how closely aligned the action research project design aligned with theoretical framework that underpins it. Considering Vygotsky's (1978) social constructivist beliefs of enabling collaboration including repeated loop of weekly training, enabling reflection, working together to plan and present understanding already tried in class. The social constructivist pedagogy employed in the planning and delivery of the action research training intervention

included pairing participants or placing them in groups to work together. McNamara (2017) proposed planned opportunities for beginner teachers and for peers to learn from each other, working closely.

Following the five weeks of visit to the SRP, the participants shared their views having completed ten weeks of training. Miss Abadi explained their own experience,

> *Just working cooperatively agreeing on the next step after reviewing previous action was great. We had role-play to show us how our action impact on the children, I went into back into my class and used pairs of children for discussing ideas, used groups more and it works. I now give fewer instructions, they discuss with peers more and join in debating ideas more, it seems to work. I feel it was beneficial because I can use these strategies…the way they linked theory to practical. Watching and working alongside the SRP staff, co-producing daily evaluations of activities was special.*

There appears to be further alignment with the Vygotskian (1978) learning theory from the description of the experience of the participant. This is backed up by the findings in this study with participants implying that they appreciated the opportunity to work with SRP staff and other practitioners. Participants recalled discussing ideas, sharing and providing feedback on discussions. They suggested that role play showed them how children felt or why they reacted to situations. They reported that it helped them reflect on how actions affect children. The participants indicated that opportunities to explore what they had worked on, or seen, the use of daily evaluation forms to review activities they had observed children interact with was highly reflective. McNamara, Murray and Phillips (2017) advocated meaningful opportunities that prepared new teachers for the classroom. They expressed appreciation of opportunities to work with other beginner teachers as well as the SRP staff. They particularly reflected on the experiences that linked the theoretical knowledge of autism to practical, hands-on experience of inclusion. There are implications for planned collaboration between participating beginner teachers and the colleague that they have been assigned to work with.

7.3.2 Observing experts in inclusive environment

The visit to the Specialist Resource Provision (SRP) for autism presented an alternative way to work with, and approach, autistic pupils positively. The participants reported that the calm composure of the SRP staff redirected their perception of pupils with autism to something more optimistic. These statements suggest that SRP staff view autism positively because they have knowledge and some understanding of how it affects children. Understanding that actions, such as standing up and walking around, sometimes helps some children to focus, was reported to lead to fewer disruptions and anxiety.

The findings show that participants appreciated the opportunity to explore complex concepts and examine them alongside peers, which enabled them to learn from each other, in a suitable environment. The visit to the SRP unit was a valued example, often cited by the participants because it provided a clear link between theory and practical understanding. In addition, it was an example of the opportunity to learn and evaluate actions together, using the daily evaluation sheets provided, to assess the effectiveness of activities and resources and decide to 'use, adjust or discard' depending on how much the children working with the SRP staff interacted or responded to it. This cycle of evaluation was a key social constructive principle that aligns well with action research.

Mr James said,

> *Autism is now a more well-rounded, in-depth, specific term to me. It is no longer a catch-all, general term; I can confidently describe what it means. I know the needs of the children because the theory training was very in-depth; we had so many examples and dimensions explained to ensure greater understanding. We had lots of opportunities to discuss and explain our meaning, there was the element of justifying reasons, meaning we had to read the handout, discuss the research materials and form a view. I have seen how the staff prepare resources and adapt them to meet the needs of specific children. They are patient and calm and accepting of the direction children take sometimes.*

The participants were intrigued and motivated by the expertise and optimism shown by the SRP staff. After each session, they discussed and debated why the actions were so effective. The word 'empowerment' cropped up a few times with

reference to working with SRP staff. Participants' responses showed appreciation of the expertise of the SRP staff and what they have to offer as 'a resource for all teachers'. Parsons (2020) held the view that SRPs provide the best of both worlds between mainstream and special schools for the autistic children, yet, after their training with such specialised staff, the participants were now more curious to investigate autism and how it might be accommodated in a mainstream school. Working at the unit with the SRP staff seems to have eradicated many of the participants' misconceptions, doubts and questions, now that they had witnessed the theory in action. Participants suggested that they found it extremely useful, and they learned a lot from observing the experts. Through the training, they said they appreciated the platform that allowed opportunities to discuss and debate any new learning and how it could be incorporated into their classroom practice.

7.3.3 Time allocation to learn about autism

The participants communicated that they valued the time allocated to engaging meaningfully in action research training intervention. They credited the dedicated time for the opportunity to explore complex concepts, share ideas and discuss experiences with peers in a relaxed, safe space. Participants indicated how the weeks of learning together and sharing practice contributed to greater understanding.

In particular, the participants indicated that they valued dedicated time, outside their planning and preparation time, to work with colleagues to explore what they were observing and improve their understanding of autism. Ms Anthony said,

> *Throughout the five weeks, my knowledge increased, and I wasn't just able to understand but beginning to interpret some of the things I saw in class... time to learn was a factor. I became more relaxed and confident...time to learn was a factor. Understanding how autism restricts the children was powerful, it showed their resilience and strength.*

The participants recognised that time is an important investment in equipping beginner teachers for inclusive practice. Participants said that the allocated learning time created the 'head space' to learn and understand. They appreciated the lack of distraction and the ability to discuss observations and ideas with peers. They suggested that the outcomes might have been different

if this had been added to their normal schedule. It would have been more intense, stressful, and possibly, unmanageable. Williams et al. (2017, pp 3-14) argue that mainstream schools have a duty to support autistic pupils by providing teachers with the ability to adapt to needs. Crucially, this study found that time allocation was one of the biggest commitments that contribute to beginner teachers' ability to learn their craft with each other.

7.3.4 Conclusion of Theme 2

The collaborative opportunities were significant in the data outcomes because participants detailed their experiences and linked the most significant aspects to working with others to co-produce knowledge. An example of co-presenting a task signifies the alignment with the social constructivism and the findings suggest that beginner teachers would benefit from greater opportunities to work with their peers. McNamara, Murray and Phillips (2017) advocated meaningful opportunities that prepared new teachers for the classroom. There are indications that participants would like the opportunity to explore complex concepts collaboratively. Participants said that collaboration provided time to share ideas or seek clarification about what they were observing. Crucially, participants generally indicated that the time allocated to engage meaningfully in action research was useful. Collaboration was planned as a central tool to enable beginner teachers to work together in a relaxed learning environment, this increased the opportunity for shared knowledge exploration and creation. Whilst this is not unique or generalisable, it adds to the improved professional practice that the action research project set out to achieve.

7.4 Theme 3: Re-evaluating professional practice

Re-evaluating beginner teachers' professional practice emerged as a main theme of this pre-intervention findings and conclusions chapter. This study concerned itself with exploring if combining the theoretical understanding of autism and inclusion with hands-on practical inclusion experience in a resource provision for autistic children would support beginner teachers with re-evaluating their practice, individually, in peers and in groups. Most importantly, participants said combining theory and practice proved most useful to their classroom practice. The deliberate choice of action research as the methodological approach

matched the principles of social constructivism enabling the development of an effective extended model of action research, which ensured the training intervention placed equal importance on beginner teachers fully engaging with peer and group learning, creating shared understanding of complex concepts. The project did not just create equity between theory and practice, it enabled a continuum between theoretical understanding and practical, hands-on experience in a specialist unit.

Three sub-themes emerged: 'Changing perceptions about autism through combining theory and practice', 'Policy-informed practice' and 'Providing beginner teachers with strategies for teaching autistic pupils'.

7.4.1 Changing perceptions about autism through combining theory and practice

Changing perspectives about autism through combining theory and practice emerged as a sub-theme of the main theme of re-evaluating professional practice because participants felt that the training intervention had added to their understanding of autism, particularly because they were more confident afterwards and believed that they were able to work with autistic pupils with greater confidence than previously. Before the intervention commenced, the confidence and understanding of autism was between 1−4; after the intervention, the ratings increased to between 7–9. However, the descriptive detail about the changes tells a stronger story of a gradual, but palpable, shift in perception.

Post-intervention, there were demonstrable improvement in the understanding of autism and usefulness to participants' practice. Ms Anthony implied that they had a better understanding of autism as a result of engaging in the action research project,

> *We learned about the barriers and challenges the children face. I wouldn't have reacted the way I did, if I knew. I learned about how diverse the spectrum is. I now understand that it is a condition, not a disorder. I know what they struggle with. By focusing on their strengths, it has made me reflect on how I plan my lessons. I learned that each child is affected differently.*

Participants indicated that improved understanding of the barriers and challenges autistic pupils face and reflects on a different approach 'reacting …if I knew'. There was the realisation, 'I now understand', 'focusing on their strengths ….reflect on how I plan'. Key to this extract is the link between knowledge acquired and usefulness in the classroom practice. Discussing how autism affects the children was valued because it linked back to classroom experience and practice, social constructivism believe that learning happens when people interact (Vygotsky, 1978). There was an implication that the need for training to teach autistic children was under-estimated during teacher training.

Further evidence that points to positive views of the training intervention includes how the participants' perceptions had altered from before the action research training intervention and, therefore, that the training had some influence on their perception of autism. The assumptions that were brought into the beginning of teaching seemed to have resulted from the lack of knowledge of autism and the impact it has on autistic pupils. This aligns with Garmon *et al.* (2005) who wrote that new teachers bring their pre-dispositions and beliefs into the classroom, and this can hinder their ability to include the full range of pupils. Before engaging with the theoretical intervention, participants were asked the question, 'Do you feel that you would benefit from a five-week, theory-based training on inclusion and autism?' Miss John responded,

> *I see autistic children differently now. I approach them with more patience, and I know they struggle with communication, they learn differently. I am more proactively adapting resources, timetables and visual aids. I know it affects their noise tolerance and their appetite.*

The participant felt that the training intervention was particularly enlightening about how autism affects children's tolerance of loud noise, colour overload, sensory issues, and how it affects their appetite. They suggested that understanding the children helped them to realise the importance of creating inclusive resources such as cue cards and visual timetables, in line with social constructivist learning theory. Milton (2012) posited that there should be a shift from focusing on behaviour to supporting the autistic pupils. The data also shows an upward trend in reflexivity and growing confidence in the participants as they began to understand some of the effects of the condition on autistic pupils. There seemed to be improved knowledge of the characteristics of autism. The

participants appeared increasingly able to articulate their understanding of what autism means and what the pupils can do, crediting the understanding of autism to deeper knowledge of inclusive practice.

The data suggests that the participants gained increased knowledge about why autistic pupils behave the way they do. They understood better that autism affects children differently and this accounts for the behaviour they exhibit as a result. There were indications of reflection on previous reactions to behaviour, pre-intervention.

Following the theory training, participants were posed the same questions about their perceptions of autism. Before the training intervention, Ms Fowler said,

> *I heard that the pupils can be intimidating, threatening and out of control. I felt frustrated and helpless, angry because I did not know what to do.*

Following Phase 1 of the training intervention, participants reflected on how theoretical understanding of autism explained the behaviours attached to autism. Participants suggested that they had observed more and understood more. Wood (2019) found that it is more progressive to consider what the autistic child can do, instead of their disability. After the practical training intervention phase, Ms Fowler,

> *I learned about some aspects of autism, how it affects children's communication, the social barriers. It can translate to stresses for the children and their families. I am aware of the wider implications on their day-to-day functioning and struggles around the building. Now, I see their detailed drawings and scientific understanding.*

The participants demonstrated new awareness of the importance of making time to understand the pupils and observe them more. They provided concrete examples, such as why a child might make a humming noise in class, or how sensory overload affects the pupils. The responses indicate gradual changes in perception and understanding about why children show certain behaviours. The findings suggest that the beginner teachers had greater opportunities to ask questions and explore the meaning of the condition in collaboration with others. The responses showed that understanding the characteristics, barriers and challenges associated with autism was essential to demystifying the condition.

7.4.2 Policy informed practice

Beginner teachers suggested that having insights into inclusive practice and understanding inclusion legislation helped to deconstruct the complexities of inclusion. It meant that they were more proactively adapting resources and curriculum plans. It also seems to have supported their understanding of pupils' right to be in mainstream classrooms. They were willing to implement inclusion legislations such as the SEND Code of Practice (2015) and the Equality Act (2010). Participants indicated that an understanding of inclusion legislation benefited the autistic pupils, increased their own inclusion knowledge and boosted professional confidence. Miss John offered their understanding of legislations that underpin inclusion in England,

> *I learned about the SEND Code of Practice and how this changed parental rights and choice of schools. It helped us understand why more parents are choosing mainstream schools and in understanding the context.*

In relation to further changes to inclusion practice, participants were asked the question 'What does inclusion mean to you in relation to pupils with autism?' Following the action research training intervention, they indicated that there was a more in-depth knowledge, through training, that helps to demonstrate what inclusion looks like in practice. These extracts offer a comparative view from participant (P5) before the training intervention,

> *I would say that inclusion means that they access the curriculum at their level… it's tailored to them, just as it would be in a special school; you would have a curriculum designed for that particular child.*

These responses imply the success of the training intervention in improving perceptions of inclusion. Boylen *et al.* (2018) found that Scottish secondary school teachers' attitudes towards inclusion were more positive at the very beginning of their careers than more experienced colleagues. After Phase 1 of the theory intervention, Mrs Amin,

> *Identifying their uniqueness is key to including the child, planning …simple things that will help each child. A chance to know the child and setting up activities that will prepare the child for a new topic and sending it home.*

The participant indicates understanding of how autistic children can be supported. In a similar study, Leifler (2020) achieved comparable success with short professional development sessions designed to increase teachers' capacity to create inclusive learning environments. Leifler (2020) recommended more research into the effectiveness of teacher training aimed at improving the teaching of students with diverse characteristics. This study found that a positive attitude is also a condition for success, and it can be influenced by a range of factors but that engaging in action research was suggested as an enabler for beginner teachers to discuss with colleagues, take action and receive feedback. It also highlighted the relevance of collaboration with peers, changing attitude and pre-professional inclusion practice.

7.4.3 Providing beginner teachers with strategies for teaching autistic pupils

Participants suggested that opportunities to work with peers to share strategies that work in the classroom were beneficial. Beginner teachers' responses indicated that there was improvement to their practice due to engaging in the action research and the strategies and initiatives were useful in the classroom. Below are some examples of the usefulness of having strategies to take back into the classroom that influences practice include, example 1 implies that strategies tried appear to work and there is regret that this training was not available earlier.

Example 1

> *I have tried some of the strategies and they do work. I wish I had had this training earlier on in the year. I feel more confident. I also think that looking at inclusion in depth has helped my understanding of autism (Mr James).*

The example 2 below, suggests that this participant has learned the strategies can include stepping back and observing instead of trying to stop autistic children whatever that child was about to do. There is also an acknowledgement that the

children have talent, a perception change and improved professional awareness for the particular participant.

Example 2

> *Another big deal, for me, was learning when to step back, listen, observe and sometimes do nothing. I also learned … they have their own talents, interests and passions too, I guess my confidence has grown (Miss Abadi).*

The example below signifies an impression of improved professional perspective and self-belief. A suggestion that there is greater understanding for the particular participant, an growth from previous knowledge point of autism.

Example 3

> *I still have some way to go but as my knowledge grew, my confidence grew too. I know some of the things that help the day-to-day life of autistic children, it is obvious that they don't need sympathy, … work with them as individuals (Miss Abbas).*

The participants feedback taken together suggest that the have acquired some useful strategies, ranging from feeling more confident, learning when to stepping back and knowing what helps the autistic child on a day-to-day basis. The responses indicate that a shift may start slowly and strengthen with confidence and practice. The use of strategies contributed, in part, and the participants acknowledged that little adjustments in their own classroom practice made a difference. In addition, respondents indicated that trying out strategies and suggestions from the theory training made it easier for them to understand what they were learning, because they were putting it into practice and observing the behaviour in the children for greater understanding. Accardo *et al*. (2019) found that teacher preparedness to use effective teaching strategies in their practice affects how teachers view their ability to teach autistic pupils.

Participants repeatedly used the phrase 'growing in confidence' in their ability to teach autistic pupils as opposed to 'lacking confidence' because they were able to test out strategies learned. Like this study, Hoon *et al.* (2018) found that attitudes of teachers were influenced by coursework intervention. It is safe to assume that the ten weeks of training contributed to the growing confidence of

the participants and the participants suggested that the intervention also played a part in their changes in practice.

7.5 Conclusion

The findings and conclusions in this chapter cumulatively highlight how social constructivist beliefs in how learning is created in social environment through collaboration and meaningful interaction, Vygotsky (1978) can add meaning to the practice of eight willing participants in a small-scale action research project. It is testimony that fidelity to the commitment of the project that none of the participants dropped out during a study period that spanned over 15 weeks in total.

The findings represent beginner teachers views during and after the action research training intervention and it captures the perceived impact of the training intervention. There are indications that the themes that emerged helped to explain why the participants engaged so well, they admitted that the combined theory and practice was the most influential in changing their practice, they alluded to have useful, practice strategies, some of which were showing positivity McNamara and Murray (2015), found that teachers had poor sets of strategies that leaves new teachers unable to include pupils in their classrooms. But this was not the case at the end of the study, there was some evidence of strategies that was already tested in the classrooms and in some cases presented collaboratively during the training intervention. They particularly indicated that having the opportunity to work with peers enabled them to interrogate complex concepts more effectively and the time allocated was a contributing factor. There was evidence of some light but definite shift in attitudes towards autistic children, due in part to the training and their own dedication and fidelity to the project. The project seemly engendered curiosity and the need to learn with the added dedicated learning time.

The was a conscious shift from the practice of labelling autistic children and commitment to supporting the children. Hodge (2016) argued that 'labelling devalues children (p.187). There was no indication that this was the case at the end of the training, instead, there was evidence of reflection of possible previous actions and a commitment to supporting the children, one of the participants insisting, '*autistic is who they are'* and another stating, ' *I realise how unaware we*

must have been before the training, and how unaware we were about how it affects the children… they do not deserve the stigma after what I have learned, it is damaging. The five weeks spent working with SRP staff resulted in 'a change in mindset, …was a powerful tool' the participant went on to declare that 'the opportunity' and 'forum provided by the training' enabled discussions about …'many aspects of autism', which aligns well with the theoretical framework of the thesis.

The action research study, placed in the context of two East London schools, examined the effectiveness of a training intervention that combined theory and practical experiences. It explores the perception and attitudes of beginner teachers and the way they are prepared to support pupils with autism. From a qualitative research viewpoint and a social constructivist outlook, the chapter demonstrates that beginner teachers can be encouraged to develop and enhance their knowledge and understanding of inclusion through an ongoing learning process. The participants were candid in their responses and willing to participate in a process that enabled reflection of practice and action to improve knowledge and understanding, thereby, improving practice.

This study's findings indicate that effective teacher preparation programmes in higher education are crucial to the development and retention of future professionals. Therefore, the learning experiences of beginner teachers at ITE must reflect the relationship between theory and practice. The participants outlined the value of knowledge and understanding of the key subjects of autism and inclusion. They emphasised the importance of dedicated learning time that enabled them to reflect on their practice individually and collectively.

All the themes explored and discussed within the sub-sections are reflective of the experiences of participants. The responses revealed the vulnerability of participants due to a combination of factors including lack of knowledge and understanding, preconceptions, misconceptions, negativity and fear. A rationale for the training intervention was conceived out of a review of existing literature and underpinned by a constructivist perspective. The outcomes of the intervention were shown to be overwhelmingly positive. This study did not set out to be generalised. The researcher hoped at best for self-reflection as a school leader and very localised influence on professional practice. However, it could be

argued that there is some evidence of impact on the participants' professional practice that adds new knowledge to the existing education field.

Chapter 8 reviews the aims of the research and provides a summary in relation to the research questions. This is followed by a commentary that reviews this study in relation to the conceptual framework. The limitations of this study and its methodology are considered before moving on to discuss the implications for further research and recommendations for future practice.

Chapter 8: Conclusion

8.1 Introduction

The findings from this thesis demonstrate the complexity of factors that influence how beginner teachers are equipped for inclusive practice. It investigates the effectiveness of a ten-week training intervention that combined the theoretical understanding of autism with hands-on practical experience in a Special Resource Provision (SRP) for autistic children. Within this chapter, the aims of the research are reviewed, and a summary provided of the findings in relation to the research questions. The research methodology is outlined, and the limitations of the study are reiterated before revisiting the conceptual and theoretical framework of the study.

The research recognises the challenges that beginner teachers face and suggests that the training intervention devised for this action research project could support their future induction and preparation. This study contributes to knowledge in the field by creating a new understanding of how schools and institutions can better prepare beginner teachers to include pupils with autism in mainstream education. The study's implications for future research and recommendations for future practice are discussed, followed by the distinctive contributions of this study to the existing body of knowledge on interventions for beginner teachers' professional learning. The chapter closes with reflections on the personal learning and development of the author that emerged from conducting this research project.

8.2 Review of the research questions

The journey through this research began because as a black, female leader of large educational institutions in England, and having worked in education for several years as a teacher, the researcher set out to understand how beginner teachers across the institutions perceived their readiness to include autistic pupils in their mainstream classrooms. There was a need to explore what contributes or hinders how beginner teachers are equipped for inclusive practice. The research questions are linked to the key concepts examined in the study, and the findings

across both schools showed interconnectedness in the approach to, and response from, the participants.

8.2.1 Research Question 1

What are the perceptions and attitudes of beginner teachers about being equipped to include autistic pupils in their mainstream classrooms?

It emerged that prior to the intervention, there was a clear deficit in the beginner teachers' understanding of autism as a condition and their confidence in how to approach it, as well as the absence of a significant opportunity to put this right. Participants' reports of 'feeling helpless' and the sense that they did not know what to do, as well as their feelings of being 'overwhelmed', suggest a mismatch between what was expected and what was subsequently experienced. Also, that an understanding of autism was important to the beginner teachers as a means of equipping them to include autistic pupils in their mainstream classrooms.

The broadness of teacher training normally offered, rather than enabling beginner teachers, was found to be creating barriers to understanding autism, leaving many aspects of the condition largely unknown to beginner teachers during the first weeks and months of their careers. This suggests substantial limitations on the knowledge of the condition, even as the newly qualified practitioners enter the classroom, which has added to perceptions of the condition as intimidatingly complex. There appeared to be a gap in their training. It seemed that training providers were not, routinely, providing the kind of in-depth instruction in autism that would sufficiently equip those joining the teaching profession to effectively include autistic children in their mainstream classrooms.

This qualitative research is predicated on the notion that the problem identified might be better understood by enabling teachers to collaborate with peers via a social constructivist worldview. There are contrasting differences between the statements prior to the action research training intervention and the comments after the training intervention comments like '*It is a huge eye-opener about their struggles (P3)'.* The phasing of the intervention, based on an adjusted action research cycle provided reflection and adjustment opportunities that allowed participants to have clarity of meaning from Phase 1, and sufficient space to review what they learned. The post-intervention comments show that the training

had an impact because the participants made clear that they had come to feel empowered to carry out their professional duties successfully and with confidence, '*It made me more aware, more patient (P8)'.*There were reflection or consolidation tasks attached to each session; the participants were asked to try out what they had learned in class and feed back to the group or create resources in pairs (or in small groups) for the next sessions. The perceived complexity of autism before the intervention had adverse effects on the participants, '*…even before I stepped into the classroom, I was tense (P2)'.* There was evidence of evolution in perception from 'being tense' prior to the action research training intervention, '*I am keen to incorporate what I have learned. I feel more equipped, and I know that routine is key, the day management must be clear, less stress (P4)'.* A large proportion of the anxiety about autism and autistic pupils was rooted in a perception of the behaviours of autistic pupils. The findings show that the participants could not understand why autistic pupils behave in the ways that they do. The participant's perceptions of behaviour, however, evolved as the behaviours attached to autism were explained, explored and understood during the action research, '*Autism is certainly complex and awe inspiring, …but when misunderstood, some children really suffer (MISS ABBAS)'.* Following the final stage of the training, the suggestions evolved further, garnering more positive comments such as, 'now I understand what the children do and why.*'* In support of this, Jennett (2013, p. 590) also found that teachers with more confidence about autistic pupils were less worried or negative about teaching.

At the pre-intervention stage, the participants believed that behaviour challenge represents a high proportion of the difficulties autistic pupils present. Yet, Pellicano (2022) suggests that the focus on behaviour, and the general ignorance surrounding autism, are 'flaws' in the system (p. 382) that adversely affect autistic pupils. The findings of this study indicate a lack of understanding, by beginner teachers, of how to work with the children and how that led to difficulties at the commencement of their teaching profession. Unhelpful comments prior to the training intervention suggested that autistic pupils could be 'out of control', yet Garmon *et al.* (2005) found that new teachers bringing their pre-dispositions and beliefs into the classroom actively hinder their own ability to include the full range of pupils. The lack of training appears to have left the beginner teachers who went on to participate in this study under-skilled when faced with the responsibility of

including autistic children in their mainstream classrooms. Thus, despite their successful acquisition, or mastery, of other skills associated with teaching neurotypical pupils, they found themselves ill-equipped with strategies for managing autism-related adverse incidents in the classroom. Nevertheless, those skills are fundamental to their ability to support the children and include them in their classrooms.

With the caveat that the findings cannot be generalisable enough to draw broad conclusions, it can still be inferred, from the participating beginner teachers' responses, that an understanding of autism is regarded as crucial to the skill set of any classroom teacher.

8.2.2 Research Question 2

How effectively will a ten-week training intervention that combines the theoretical understanding of autism with established best practice in a special resource provision prepare beginner teachers to include autism spectrum pupils?

The social constructivist principles of Vygotsky (1978) were instrumental in the design and subsequent outcomes of the intervention. In Chapters 4 and 5 of this thesis can be found a full description of the use of advisory groups before the commencement of the study; group interviews; detailed, exploratory lesson plans; daily reflections on, and adjustments to, the intervention plan, and the discussions and debates. Participants reported individual development occurring, in part, by having time to collaborate with peers, shaping cultures of the group and, to some extent, a small proportion of the school.

The inductive data collection was aligned with constructivist grounded theory, an approach that is grounded in data that has been systematically collected and analysed (Charmaz, 2002, p. 56). In addition, social constructivism and constructivist grounded theory (CGT) infused the instructional design and these align with the principles of action research. Robson (2002) explained that whereas traditional research aims to explore something in depth through research design, gathering data and data analysis, action research has an added dimension of wanting to improve practice; it is driven by the need to change something for the better and is led by practitioners.

The training intervention placed equal value on the theoretical and practical phases. This aimed to maximise the effect of the actions taken to change beginner teachers' perceptions of autism and equip them more fully for inclusive practice. The findings indicate that pre-intervention, the beginner teachers who participated in the study regarded inclusion as something complex and challenging to achieve, and were in possession of few, if any, strategies for inclusive practice. There was a shift in individual participant's perceptions of their ability to include autistic pupils after learning about the legislation that underpins inclusion. They were aware that this was not an area they had spent time studying at university or during school induction, and the findings underline the importance of knowing and understanding the legislation that underpins inclusion. The beginner teachers were, however, keen to learn how to support their autistic pupils and recognised their moral duty to include them fully in mainstream classroom teaching and learning.

Key to the participating beginner teachers was the need for training that would, first, equip them with strategies to deliver inclusion and second, increase their professional confidence. Training teachers to teach autistic pupils and equipping them for inclusive practice go hand-in-hand and the consequence of this is improved perception of autistic pupils. Miss John reflected, '*looking back, teacher training and CPD at school did not prepare me sufficiently to support autistic children...The action research training was explicit about the strategies and the difference it makes, I view the children differently now'.* The findings show that while ITE, placements and school induction satisfactorily equipped trainees to teach neurotypical children, they did not equip them to teach those on the autistic spectrum. Participants acknowledged that the time allocated to the training reduced the potential stress of teaching, planning and preparation. They felt it made it more effective and positively received, not an add-on. This was in contrast with the experience at ITE and school induction, where planning did not allocate enough time to the teaching of autistic children. The participants opined that the training before commencing their teaching role did not equip them for inclusive practice because too little time was committed to it. The participants viewed the training to teach autistic pupils as important and felt that having only one lecture on autism during teacher training was insufficient to prepare them to commence their teaching career.

The participants suggested that the ten-week training intervention provided them with much more in-depth knowledge about autism and autistic children. They showed interest in learning some practical strategies for communicating with and teaching autistic children so that they could confidently include them in their mainstream classrooms. Mr James said *'During teacher training, we had only one lecture, then we embarked on planned placements, which lacked clarity or explanations'.* Avramidis *et al.* (2017) criticised ITE for not dedicating more time to preparing beginner teachers for this crucial role. The participants reported that lectures did not provide the opportunity to explore autism. It was, therefore, not possible to fully comprehend. The action research training intervention process made it possible for participants to explore a range of teaching strategies. Pedagogy was a gap that reoccurred in the interviews before the training intervention commenced. Aligning it with Vygotsky's (1978) social constructivist theory, a step-by-step development of the training content for the intervention incorporated peer learning, also enabling experiential learning and the sharing of good practice. Participants felt the need for support to navigate through what they regarded as a complex subject by having a range of pedagogical strategies to support autistic pupils. Miss Basher said 'I learned a *visible balance between intervening and stepping back.'* Payne (2007) stated that pedagogies can build on prior learning and experience and involve a range of techniques, guided learning, individual activities and assessment for learning. Vygotsky's (1978) social constructivist pedagogy employs a blend of teacher-guided and pupil-centred learning, and a focus on the belief in a collaborative process between pupils and teacher, for example, group work, teacher modelling, questioning and pair and whole-class instruction. The beginner teachers embraced methods, strategies and pedagogies that incorporated a range of options for including autistic pupils.

Enabling peer collaborative opportunities was one of the strengths recognised by the participants. They suggested that benefiting from greater opportunities to work with their peers and share strategies that work enabled knowledge construction and increased confidence. There were ample opportunities to discuss and evaluate strategies that worked best and explore complex concepts collaboratively, alongside peers, enabling them to learn from each other, which aligns with the social constructivist approach adopted during the training

intervention. Participants said that a large portion of their teacher training and school induction represented missed opportunities for them to collaborate with peers. However, collaboration was central to the theoretical framework of this study. The ten-week training intervention used social constructivist pedagogy to pair participants in activities, including during their visits to the SRP. McNamara, Murray and Phillips (2017) proposed planned opportunities for beginner teachers and for peers to work closely and learn from one another. Also, there was an opportunity for a unique knowledge exchange between support staff and qualified teachers at the SRP − the experts (Parsons 2020). The participants reported that they appreciated the time to work with the SRP staff. The ten-week training intervention seems to have influenced the participating beginner teachers positively. This study found that beginner teachers need structured training that demystifies inclusion, to ensure it is easily understood. Hoon *et al.* (2020) found that teachers that participated in training found it influenced their attitudes positively.

The participants identified combining the theoretical knowledge of autism and the practical, hands-on experience of inclusion at the SRP as the most impactful experience of the training intervention. Phase 1 was pre-intervention, designed with a view to meaningfully representing the perspectives and ideas of the participants on what might contribute to equipping them for inclusive practice. Through an analytical assessment of their responses, adjustments were made to the original theoretical framework which fed into the design of the intervention training. The participants perceived Phase 2 of the action research training intervention as significant because, amongst other things, it created a community of learners (Atwal, 2016). They felt it engaged them by addressing their concerns, helping them to explore the characteristics of autism and why autistic pupils behave the way they do, and it was instrumental in their acquisition of a newfound understanding that, in turn, boosted confidence in their ability to teach autistic children. The midpoint data collection, after studying the theory and before commencement of the practical visit to the SRP unit, provided an opportunity to understand how participants perceived the first part of Phase 2. This was valuable because it was a reflection point that facilitated collaboration and shared review. Their views on their perceptions of part 1 of phase 2 formed a necessary and relevant contribution to the adjustments made before commencing the

hands-on practical phase. This also aided a seamless transition from theoretical learning to hands-on experience. Phase 3 of the training intervention involved the collection of post-intervention data based on perceptions of the impact of the interventions. The findings and discussions arising from Phase 3 are summarised below, without assuming that the evidence presented in this chapter is conclusively generalisable for all beginner teachers.

8.3 Review of the study

This action research exploratory intervention in the preparation of beginner teachers in England aimed to examine their perceptions and attitudes towards inclusion of autistic pupils in mainstream education. It focused on how beginner teachers might be equipped to ensure that autistic children, some of the most vulnerable pupils in schools, could be included in mainstream classrooms.

A combination of factors and influences provided the spark for this study. First, the extent to which participating teachers were concerned and complained about the behaviours of autistic pupils. The high frequency of references to autistic pupils' behaviours in interviews hinted at a day-to-day reality of teachers feeling under pressure and lacking in skills and strategies for managing these behaviours. In addition to this, information gathered from exit surveys evidenced that teachers were leaving their jobs and/or their profession because they could not handle the pressure of managing autistic pupils. For the researcher − a school leader − this finding could not be ignored because of the adverse effect it was likely to have on the pupils.

Second, existing literature played a role in the decision to embark on this research into how beginner teachers might be equipped to genuinely include and support autistic pupils. Ollie-Pekka Malinen (2012) wrote that across the globe, the quality of teachers is one of the most frequently cited factors in the quality of an education system. Richards *et al.* (2010, p. 132) stated that previous investigations into how new teachers are prepared to support pupils with special educational needs (SEN) have underestimated the full extent of the issues that impact outcomes on education for such pupils. The drive towards school-led teacher training and a diversity of options for those training to teach had created a deeply fragmented system. McNamara and Murray (2015) carried out an investigation into teacher training routes and the findings revealed primarily that

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there was a drive towards school-led, but great diversity of options for training to teach created a deeply fragmented system. McNamara, Murray and Phillip (2017) criticised the emphasis on school-based training, but it failed to resolve the disparate curriculum and pedagogical challenges that continue to plague the system. Further existing literature sheds light on some of the issues that hinder beginner teachers' readiness as well as highlighting strategies and interventions that have been successful, helping to contribute to the formulation of new research questions. The education landscape has continued to transition since the commencement of work for this study. In Chapter 1, this study set out to understand beginner teachers' perceptions of autism and how they could be equipped for inclusive study. But on reflection, there was an under-estimation of the participants' starting points in their understanding of autism, and what constituted inclusion practice.

The findings in Chapter 6 reveal the low level of understanding of autism and autistic pupils that the participants in this study brought with them on entry into the profession. Richards *et al.* (2010) found that student teachers were not equipped to teach pupils with SEN. They wrote that even the more confident participants in their study found teaching SEN pupils to be intimidating. This study responded flexibly to these findings and adjusted the research and intervention design accordingly, to incorporate more basic training in autism. It was, however, equally evident that not all participants had the lowest starting point. Crucially, their previous work experience was considered. Throughout the training, it was notable that the participants in this study were, indeed, struggling as they commenced their teaching careers, and this led to a strengthened resolve to investigate the actions (or inactions) that may have contributed to such profound gaps in beginner teachers' knowledge of autism and understanding of inclusion.

Employing social constructivist theory to guide the instructional design for the intervention allowed the participants to build on whatever prior knowledge they had and share their unique insights with peers to co-construct further learning. This proved to be an effective methodology and it was heartening to report in Chapter 5 that the principles of this study were being used at the schools to train both new teachers and new support staff in a drive to continue to influence the culture of a school that had been, in part, responsible for the problem that was identified. The findings in Chapter 6 suggest that the phased approach to the

study was appropriate and uniquely effective at enabling the combined action research training intervention to improve participants' understanding of autism and autistic pupils. It provided strategies for inclusive practice through the alignment of autism theory and hands-on practical experience of inclusion. The aims of the study were, therefore, appropriate, justified and achievable, with the caveat that evidence presented in this action research study is not conclusive enough to suggest that beginner teachers' perception of autism or that equipping beginner teachers for inclusive practice was solely influenced by the actions taken specifically in this study. However, there is significant evidence to indicate that the actions could impact both teachers' perceptions of autism and their related practice.

One of the most unexpected outcomes of this study was that 87% of the participants remained in their positions at the schools at the time of final publishing of the thesis. While it might be possible to over-claim its significance with relevance to the intervention outlined in the study, it is, nevertheless, noteworthy that they have also continued, enthusiastically, to build on their understanding of autism and how to support the children. For example, two of the participants have completed masters degrees in special education and they all continue to show eagerness to take on classes that include autistic pupils

8.4 Limitations of the study and methodology

This action research project was limited in scope by several factors including having only eight participants, situating the study across two schools, researching the author's own workplace as an insider-researcher and some logistical issues.

The research was never expected to be generalisable because of the intention to deepen understanding of the specific data collected. The small-scale sample size of participants relied on localised experience (Charmaz, 2014), knowledge and understanding of specific issues surrounding the challenges of equipping beginner teachers for a specified teaching challenge.

The study spread across two schools, with 57 teachers and eight participating beginner teachers, making up 14% of the teacher workforce, which meant that there was a beginner teacher in every year group. The small sample size was not detrimental to the research, which aimed to collect valuable data that could

provide in-depth understanding of the problem investigated. It allowed for substantial time to be apportioned to each participant, providing the opportunity for expanded, rich responses. However, the small sample size limits this study's capacity to draw widely generalisable conclusions.

The ratio of men to women in the study is, arguably, a limitation as there was only one male participant compared with seven females; however, it was representative of the ratio of men in the primary teaching workforce. Exploring only beginner teachers' views could be perceived as a strength because it leads to in-depth study of the subject but, equally, it has drawbacks as it does not factor in other, more experienced teachers' views on being equipped for inclusive practice, or their perceptions of autism and autistic pupils. The age average of the participants put them between 21 and 27 years, with only two older than 35. All were under 50. Clearly, this represented a mostly younger demographic, but since early career preparedness was the focus of the study, which aimed at exploring the roles of ITE, school induction and continuing professional development (CPD), this was deemed to be largely appropriate. Taking both the medical and social aspects of autism into consideration could be considered limiting. However, it brought both sets of knowledge under scrutiny and acknowledged, however uncomfortably, that medical diagnosis remains the only route for seeking support for autistic pupils.

Researcher positionality is inevitably limiting because although it gives insight of the problem from an insider perspective as a school leader, it also risks unwitting bias and assumptions that could lead to hasty conclusions and unknowingly influence participant responses, affecting the quality of the data gathered. With an insider-researcher, the possibility is acknowledged of a tendency towards preconceived conclusions (McNiff *et al*., 2002). This was addressed and mitigated, to a certain extent, by declaring bias and adjusting the way data was collected. For example, participants conducted interviews as well as the researcher for later comparison. As a teacher, participants could see the researcher as sympathetic to the issues they are experiencing (Greenbank, 2003). This could be regarded as a disadvantage of researching one's own workplace.

The logistical limitations included organising timetables with a busy special educational needs coordinator (SENCO) as the gatekeeper; avoiding any

changes to the normal school day that could lead to disruptions and avoiding scheduling anything during the legal teachers' planning, preparation and assessment (PPA) times. Working around the gatekeeper's daily schedule was challenging because careful consideration was given to ensuring that children were not directly involved in the study, due to ethical considerations. In addition, the scheduling of the pairing of beginner teachers alongside SRP colleagues was extremely challenging as it was dependent on what part of the building they were scheduled to be working from (the SRP was spread across two sites to accommodate age ranges).

8.5 Revisiting the conceptual framework

Literature on autism, inclusion and social constructivism formed the framework for this study. To extract any meaningful conclusions about the relevance of the action research project, returning to the conceptual framework and the theoretical worldview that shaped the study would shed light on the process of adding value to the expert body of knowledge that already exists. This thesis posits that beginner teachers' lack of understanding of autism influences confidence and belief in their own ability to include autistic pupils in their mainstream classrooms.

The original conceptual framework outlined the research problem and influenced both the research and the intervention designs. This study found that before the training intervention, its participants did not understand autism or autistic pupils, evidenced by such statements as '…since I do not understand what is going on, I cannot help', and they felt unable to interpret arising situations or support the pupils. Sanz-Cervera *et al.* (2017, p. 134), however, found that understanding autism will assist in equipping teachers with strategies to improve their ability to support autistic pupils. In agreement, interpretation of the data in this study indicated that it is key for beginner teachers of autistic pupils to understand autism. The action research training intervention can be regarded as successful to the extent that it created a bridge, a link between knowledge of autism and practice of inclusion that meets the needs of autistic pupils. Although not generalisable, the training intervention, which combined theory and practice, enabled the participants to gain useable strategies and clear pedagogy that they could action in their teaching thereafter. And this was made possible through the investment of sufficient time to co-construct new learning through peer

collaboration, exploring concepts and strategies, reflecting on actions, posing and answering questions and consolidating understanding.

The original conceptual framework pre-supposed that understanding autism increases confidence. The findings agreed with the assumptions in that some beginner teachers in the study (12.5 %) claimed an improved understanding after the intervention, including those who had worked as teaching assistants before commencing teacher training. Ravet (2015) wrote that the complexity of autism leads directly to stress and anxiety problems among teachers and this study concurred, as participants recalled struggling with the concept of autism as soon as they joined the profession and linked their anxiety to their perceived complexity of the condition. This action research project found that 100% of the participants characterised autism as complex, but also that the anxiety came, in part, from a fear of the unknown. The participants confessed to not understanding how autism affects the daily lives of autistic pupils and this is backed up by literature. Wood (2019) found that teachers' negative perceptions of autistic behaviours result from a lack of understanding of how autism is manifested. She suggested that simply understanding autistic pupils better could help, rather than hinder, autistic pupils' ability to cope with everyday life in mainstream environments. The interpretations of data indicate a link between the way autism is manifested in schools and perceptions of poor behaviour. The findings of this research show that behaviour challenges represented a high proportion of the difficulties autistic pupils exhibit in mainstream schools. Also, that there is wide-spread misunderstanding of behaviours manifested by autistic pupils. Participants were also influenced by the recalled experiences of others, which were equally damaging to the perception of autistic pupils.

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2013) and the International Classification of Diseases (ICD-11, 2019) are diagnostic tools that describe autism as a neurodevelopmental 'disorder' with 'persistent deficits'. The World Health Organisation (WHO) (2019, p. 43) describes autism as a group of complex brain development 'disorders' that is characterised by 'difficulties' and 'deficits'. Hodge (2016), however, suggests that labels marginalise children (p. 189), … 'devaluing' them by 'reducing' them with descriptions such as 'disordered', because 'labels are used to expel and exclude autistic pupils as well as shut down supportive voices' (p. 187). Similarly, Pellicano (2021, p. 326)

condemns as a 'considerable misunderstanding' the view of autistic pupils 'having deficits' and posits that the descriptions are damaging labels that have a knock-on effect, as well as adding to the culture that excludes and isolates autistic pupils. The interpretation of the data in this study supports that these descriptions are damaging labels that imply something is 'wrong' with the autistic person and that they represent a key source of negative perceptions of autism.

Frith's Weak Central Coherence (WCC) theory (2008, pp. 89−90), shows that some autistic children can perceive details with greater acumen than their neurotypical peers, highlighting the strengths of autistic pupils. Her study recognises areas where autistic pupils can perform as well as, or better than, their neurotypical peers. This study has highlighted a growing body of theories of autism that have contributed to greater understanding and a positive attitude, compared with some long-held ideas that perpetuate negativity. The participants responded positively to a strengths-based approach and became positively engaged in the action research. They actively sought out more positivity and reported positive observations of the pupils. This illustrated and aligned with the theories that contribute to a positive, strengths-oriented perception of autism. Rouse (2017) blamed the lack of a universally agreed definition of inclusion for the complexity associated with the term. The original conceptual framework for this study assumed that beginner teachers are not equipped for inclusion because of the broadness and complexity of the concept. This study's findings point to the muddled definitions and explanations of inclusion adding to the complexity that has made understanding inclusion a concern for beginner teachers. The data interpretation indicates that beginner teachers often do not know what inclusion means in practice and what it should look like in class.

Chamberlain *et al*. (2017) found that teachers are sceptical about the possibility of providing autistic pupils with inclusive support and the in England (2015, p. 94) makes clear reference to schools removing barriers to give pupils access to the full curriculum. In addition, Rouse (2017) claims that inclusive practice is hard to implement because teachers do not feel sufficiently equipped. This study found that participants pre-supposed that inclusion practices are hard to implement and were deeply under-confident in their ability to include autistic children. Their responses indicate that they doubted their own ability to provide access to the curriculum for specific children, despite knowing that is the best way to support

the children. Forlin and Sharma (2014) found that the failure to implement policy means that barriers to inclusion remain in place and The Education Select Committee (2019, pp. 17−20) found that teachers were not getting the support intended by legislation such as the (2015) and the Equality Act (2010). This study found that some of the doubts can be linked to not knowing or understanding some of the legislation that underpins inclusion of children in mainstream schools and elsewhere. The conceptual framework of this study assumes that supporting beginner teachers can start with implementing existing inclusion policies such as the SEND Code of Practice (2015, p. 25) that focus on inclusive practice and removing barriers. The Equality Act (2010) in England sets out a duty to make reasonable adjustments for disabled people.

The original conceptual framework assumed that SRPs can contribute to equipping beginner teachers for inclusive practice by providing opportunities for hands-on practical experience that expose them to close working with specialist teachers who work with autistic pupils on a daily basis. For example, 'the SRP staff were very patient and resourceful, … they are equipped with bags of tricks' (Ms Anthony), 'they shared tips and strategies on how to work with the children (Miss Abbas), 'they are skilled and knowledgeable' (Ms Anthony). Following the training intervention that emerged from the action part of the action research project, the data gathered and interpreted implied increased confidence and experience with staff at the SRP. Parsons *et al*. (2020) argue that SRPs are a model of support for students and staff, and that resource provision is important for inclusive education, because it provides the best of both worlds for children. Ravet *et al*. (2016) found that teachers require approaches and interventions that enable them to support autistic children. This is echoed by the interpretations of this study; the participants showed willingness to engage in the action research as a route to learning more about autism and understanding autistic pupils, making such statements as '…I hope action research will help to enlighten me. … having some insight and better understanding will be useful to my practice' (Miss Basher). Participants have shared their interest in learning more in order to support the children. 'I want to understand more from the action research, so I can stop worrying and doing more to support or even learn about them' (Ms Fowler).

The findings from this study suggest that training is important to improving beginner teachers' perceptions of autism and equip them for inclusive practice. However, the assumption of the original conceptual framework that theory training alone, or practical training without the theory, will be sufficient to equip beginner teachers was found to be incorrect. This marked a difference between existing literature and my own study's findings. This study found that there was a need for theoretical understanding as well as practical hand-on training and that combining the two was more markedly more effective. The pre-intervention survey found that participants' views aligned with literature, with the majority assuming that practical experience would be the most effective because it provided an opportunity to observe practice, while 30% prioritised theoretical understanding of autism. However, the combined intervention was perceived as enabling by the participants for providing practical strategies to support the theoretical knowledge. The design of the study was heavily influenced by the assumptions of the original conceptual framework but was updated to reflect the interpretations of the data findings.

8.6 Implications for future research

While acknowledging that the evidence presented in this small-scale action research project is not conclusive enough to suggest that beginner teachers' perceptions of autism, or that equipping beginner teachers for inclusive practice, are fundamentally influenced by the conclusions drawn by this study, there is sufficient evidence to indicate that the conclusions drawn are relevant to beginner teachers when considering the factors that impact on their inclusive teaching practice. Whilst the use of an advisory group was not unique in shaping the study, it resulted in the decision to whittle down the group to only beginner teachers. The role of the group was to be a 'sounding board', because their reaction to the suggested study was used to test out the validity, and likely success, of the proposed intervention before commencing the study. Future studies could follow a more traditional qualitative research route and carry out a pilot with a sample of the teaching population at a much smaller scale than the planned study.

A conscious decision was made to seek an in-depth understanding of the concept and context of the study, rather than focus on achieving a large sample size; but even selecting a group of eight beginner teachers as participants was complex

and challenging. For the credibility of sampling, researchers can anticipate challenges to selecting participants (Plinka, 2015). Future studies might consider carrying out a similar exercise using teachers with longer service records − possibly more than five years. This would involve working with a separate cohort of teachers with varied predispositions. The conception of this study was, in part, driven by the need to understand and improve a specific institution's approach to equipping beginner teachers for inclusive practice. Future studies could be carried out across mainstream schools and special schools instead of Special Resource Provisions (SRPs) for autism. This could collect data that would be meaningfully compared with (and build on) this study. This study might have had slightly different outcomes if Phase 2 had been conducted in a special school instead of an SRP for autism. For reasons specific to the researcher's circumstances at the commencement of this study, a conscious decision was made to carry out the research from the perspective of an insider-researcher. This need not be the case for future studies. This research has many potentials to be built on, improved and adjusted. There is the flexibility of choice of how to build on this study.

In Chapter 5, I presented the journey of this thesis. It is, therefore, crucial to recap aspects of the journey for their implications for future studies and to highlight that this part-time study spanned a period of ten years (including two years' suspension for health reasons). This is contextually relevant because, as outlined in Table 5.2.1 on p. 81, the data was collected in 2018. However, in September 2021, the Early Career Framework (ECF) and the Initial Teacher Training (ITT) Core Content Framework (CCF) came into effect nationally. Whitfield (2022) suggested that this marked the most significant shift in the way teachers enter the profession since the 1970s, when teaching qualifications became compulsory.

The introduction of the ECF, in September 2021, was a significant reform of teacher training that extended the period of evidenced-based development for beginner teachers from one to two years. The ECF sets out what beginner teachers are entitled to learn, and how, and has effected a transformation to the way teachers start their careers. All beginner teachers in England have now been known as 'early career teachers' (ECTs) since September 2021. Daly et *al*. (2022) implied that the framework recognises that too often, new teachers were not

receiving the support they required to excel, and as suggested by the findings in this study, they did not have adequate time to develop their professional practice. Therefore, the ECF now guarantees the two-year, fully funded package of structured training. As with this research, the government engaged an expert advisory group, which re-emphasised the four areas set out in the SEND Code of Practice and the need to help and protect vulnerable children. Standard 5 of the ECF focuses on adaptive teaching, underlining its particular importance to meeting the needs of SEND pupils and setting out what the trainees must learn and how they must implement it.

The ECF is aimed at supporting ECTs to develop their practice by receiving consistently high-quality guidance to become effective practitioners. It covers the five core areas of behaviour management, pedagogy, curriculum, assessment and professional behaviour. Professional practice, facilitation of learning, leadership and evidence, research and development are referred to as 'practice pillars'. The introduction of the ITT CCF is equally significant because it sets out the minimum entitlement for trainee teachers in England and places a duty on the providers of ITT, and their partner schools, to meet that entitlement.

The introduction of the ECF and CCF create implications for this study because they relate to, and in some cases, address some of its findings. The extension of the induction to two years provides the additional time for ECTs to learn and practice their craft as they enter the teaching career that this study finds are imperative. There are indications that the 'quality of teaching is the single most important in-school factor in improving outcomes for pupils' (ECF, 2019, p. 3) thus recognising the need to effectively and consistently equip beginner teachers to meet all the established challenges, as found in this study.

However, while many of the findings and conclusions in this study have been highlighted and addressed by these two new frameworks, it remains arguable that until the fragmented approach to teacher training via varied routes is also addressed and the providers and partner schools are delivering equal standards of quality in their interpretation of the ECF and CCF, some of the issues raised in this research persist. Daly et *al*. (2022) insist that the education sector needs assurance that these frameworks do not depend heavily on the interpretations and expertise of the mentors and providers, and that attention is paid to reduce the fragmentation of teacher preparation routes.

This is evidenced in the review of ITT ECF in January 2024 by the Department for Education (DfE) in England, which pays particular attention to the needs of trainees and ECTs when supporting pupils with SEND. They refer to completing listening sessions with the education sector in England and incorporating their suggestions about the progress of the ITT ECF. There are many benefits in the contents related to adaptive teaching and supporting SEND pupils (which includes autistic pupils); however, they recognise that this is the area where ECTs still require further support (ITT CCF, 2019, p. 5).

In their review, they make clear that though the CCF sets out a minimum entitlement, it is not a curriculum. They indicate plans to make more significant changes to the design and content of the framework and the ECF-based training to further improve the support to all trainees and ECTs from September 2025. One of the anticipated changes is to move to a combined framework for ITT and ECF-based training.

8.6.1 Power dynamics in the study – a reflection

Chapter 4 includes a personal reflection on the part that power dynamics had to play in the study. It illuminates the complexities and ethical questions raised when conducting research from a position of power within one's own institution. Through an account of the multiple, unanticipated roadblocks encountered, and the consequent adaptations to the research design, one may trace the researcher's development as their perspective on insider research evolves.

As executive headteacher of the two schools in focus, my remit was to better understand, and begin to address, a genuine, institutional problem. During the process of the study, the nuanced and complex experiences of insider research revealed some substantial hurdles. Drawing on aspects of Charmaz (2014) Grounded Theory which acknowledges and accepts that the positionality of the researcher is impossible to escape, and that the knowledge and influence of the researcher has the potential to undermine the validity of the findings. With mitigations in place, I accepted the potential of some risks, because it was evident that aspects of the action research training intervention would be impossible to facilitate without being actively involved.

Clearly, it was crucial to acknowledge the role I played in researching my own institutions, considering the monumental ethical questions raised (Greenbank, 2003). Czerniawski (2023), in recognising the power dynamics at play, declares that 'the notion that the process of generating knowledge through fieldwork is inevitably affected by the social location of the researcher in question is not new' (p. 3). However, at the outset of the doctorate project, I admitted to a degree of naivety, focussing mainly on the well-reasoned argument that the insider-researcher knowledge and understanding brought to the study from a long career in teaching, and from being a Black, female leader in education with an intimate familiarity with the inner workings of the two schools could only be positive. Czerniawski (2023) suggests that there is continuous interplay between 'power and positionality' (p. 4), which this research supports, as the power dynamics issue presented a complicated limitation requiring layers of additional mitigations, such as having an advisory group (who highlighted potential concerns and suggested the use of the SENCO as the gate keeper).

The advisory group soon identified that beginner teachers were highly vulnerable to feeling daunted by participation in such a study, as they grappled with the multi-disciplines of their new profession and as new members of staff. The gradual realisation of the negative implications of this unfavourable dynamic which could derail the study, and it contributed to further challenges regarding the acquisition of ethical approval.

The action research cycle provided mitigations through a phased model approach. The subsequent critical appraisal, though hard to digest for the insider researcher, was reflected on and responded to during the training intervention phase; and participants, seeing their words acted upon in the next phase of the study, showed a growing confidence in their own efficacy as practitioners and in their relationship with the researcher. The participant-led interviews provided a shield of sorts for the participants, because without the executive headteacher present and anonymised the data themselves. As the phases progressed, there was an incremental rise in confidence and the researcher-led and participant-led data showed only nuanced differences, increasing their validity and reliability.

8.7 Recommendations for future practice

Funding is often cited as a barrier to training across schools; therefore, this research has the unique advantage of a training intervention in which time has already been invested and which can be adapted to any setting and cohort. The cost of releasing staff could be reduced by shortening or lengthening the study. There could be negotiations with staff and leaders to incorporate the theory part in after-school CPD.

To adapt and sustain on-going improvements to general school practice, elements of this intervention could be added to school policy for all staff training and induction, considering the acknowledgment by participants in this that there is a notable increase in the number of autistic pupils across mainstream schools in England. It could be used to train staff in placement schools to shift focus from behaviour of the pupils to understanding the behaviours that are attached to autism. It could be offered to school leaders and managers in a 'train the trainer' style of package to cascade to staff and reach a greater group.

8.8 Contributions to knowledge

There are many areas this study that contribute to existing knowledge. Providing beginner teachers with a deeper understanding of autism and of the behaviours attached to the condition and enhancing professional practice. The design of the action research project, incorporating social constructivist principles that was transferred into classroom practice by the participants who reported pairing autistic pupils with their neurotypical classmates, reducing the isolation they became aware of as a result of the intervention. Where possible, they involved the autistic pupils in group work with a full understanding of the limitations.

The design was simple, clearly mapped out and flexible to implement. There was a high level of willingness to participate in the study and no participant that signed up dropped out. There was more openness and honesty because there was no notable variation in responses to the researcher-led interview questions, compared with the participant-led responses.

This thesis is, therefore, unique in the sense that a bespoke action research training intervention that combined theoretical understanding of autism with hands-on practical experience in an SRP for autistic pupils, using social

constructivist pedagogy that resulted in a palpable shift from participants focusing on what they perceived as the unpredictable behaviours of autistic pupils to a newfound confidence and determination to support and include them in their mainstream classrooms.

The three phases of the action research training intervention were perceived as significant by the beginner teachers that participated in the study because it provided a unique opportunity to collect participants' views, which resulted in altering and amending the original intervention design to consider the contributions and perceptions of the participants. The intervention phases are unique in that they provide isolated, stand-alone phases that can be adapted if finance or time is a concern. This study strongly suggests that built-in periods to review, reflect and make adjustments before commencing the next phase are key to its success.

8.9 Author reflections

During the process of this thesis, I learned that there are many ways to conduct research, but a key personal competence is resilience, vital for getting through the inevitable tough periods that such an undertaking can present. Embarking on a research journey can be the easy part and navigating through the complexity of literature choice and research design can be daunting. But I found that my motives for beginning the research carried me through to the end.

As a black African, female school leader, I embarked on this journey determined to understand what beginner teachers across two of my own institutions experienced at ITE, placements, through our school induction and CPD. However, nothing prepared me for the outcomes that unfolded. My qualitative researcher beliefs and social constructivist worldview were useful along the way because they gave structure and direction. I tried to be flexible and adaptable in the understanding that there is no one way to approach research and that knowledge can be acquired through social interaction, Vygotsky (1978). In the literature reviews of Chapters 2 and 3, I outlined my findings in existing literature and highlighted the resultant new insight that my previous actions might have contributed to the lack of preparedness of the beginner teachers across the schools I led. These actions included relentlessly pursuing data outcomes while carefully considering how beginner teachers might be trained better to

understand how to include autistic pupils. I have always viewed children's progress in schools through the lens of a curriculum with cumulative layers of knowledge, broken down into clear composites and components. But I have now come to understand that effective teachers deliver the intentions of the curriculum. It, therefore, places teachers at the heart of achieving any school's vision and this starts with beginner teachers.

The journey of carrying out this study involved contextualising the findings, which brought me to the humbling realisation that I played a significant role in the poor preparation of beginner teachers in relation to the inclusion of autistic pupils at the schools, through both my actions and inactions. This set the scene for a culture of inclusion that contributed to the problem. Interpretation of the data findings pointed to a culture of relentless focus on school targets that did not consider the importance of prioritising the next generation of teachers at the school, who were new to the teaching profession. Identifying what would equip beginner teachers for the changing demographic of autistic pupils in schools had not been prioritised. McNamara (2015) found that there was a poor approach to equipping beginner teachers through school-based induction because the training needs of the new teachers were low in the schools' training priorities. Interpreting the data that emerged from the study, the effect of the actions slowly unfolded. It was a hard message to listen to and it led to the realisation that this could be happening elsewhere. Even if this small-scale action research project cannot be generalisable, it will shine a light on the lessons that I learned.

The interpretation of the data showed that the schools did not prioritise the needs of the beginner teachers in the design of the annual cycle of training. In addition, there was no evidence that inclusion was high on the agenda either. It can be deduced that this contributed to the lack of preparedness to creating a supportive environment for autistic pupils. Winter (2016) found that the first year in the teaching profession is crucial and schools must take care to train and support teachers as they embark on the most challenging year of their professional career (2016, p.4). This realisation may point to the crucial role school leaders could play in ensuring positive inclusion culture in schools. It could indicate the importance of school leaders' engagement in action research and in teacher training, particularly at entry into the teaching profession. The findings indicate the need for a change in the way I view leadership and the true value of nurturing beginner

teachers. It points to the importance of building cultural values in schools that actively promote inclusion through training of beginner teachers.

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Appendices

Appendix A Lesson Plans

> ## Focus teaching point
> ## Week 1
> ## What is autism?
>
> - Aim - To understand the characteristics, barriers and challenges associated with autism
> - Introduction
> - What is the 'Difference not deficit' debate?
> - What is AET's Autism Competency Framework? What is it? How is it used?
> - Independent/Group work
> - Complete the AET competency framework
>   Focus - What are the characteristics associated with autism?
> - What are the challenges faced by the pupils?
> - What are the barriers to learning for autism spectrum pupils?
> - How does autism affect pupils?

Main activities / Reflections

How have you rated yourself against the competency framework?
- 1. The Individual Pupil
- 2. Building Relationships
- 3. Curriculum and Learning,
- 4. Enabling Environments
- Were your ratings mainly, not yet developed, developing or established?

Plenary
- List five characteristics associated with autism
- In pairs, identify two barriers
- Two ways autism affects pupil?
- Agreeing the next steps

Reflections/Evaluations
- What were your priority ratings for each section, high, medium or low?

Resources
- AET competency framework

Key words
- Autism, barriers, deficit, difference

Appendix B Examples post session activity for participants

Lesson 3 additional activity

1. **How can you show more support and understanding in your practice?**

   - Recognise the physical challenges of autism as well as mental/behavioural

   - Be accommodating – one approach will not always work (sometimes the child may want to be alone, other times with friends)

   - Be flexible but set routines also

2. **What can you contribute to removing barriers?**

   - More 1:1 time with class teacher to develop bond and help understanding

   - Targeting therapy – music, computing, lego, art, toys, water etc

   - Creating calm, positive working environment

   - Being patient; thinking about instructions given

3. **List five ways to create awareness across the school**

   - KS2/KS3 children with autism leading workshops, giving talks (like Christian)

   - Personality profiles shared across all staff, not just class teacher (where relevant/appropriate)

   - Training on streamlining instructions, simplifying expectations

   - Roleplay with children and adults

Appendix C Ethics Forms

Consent Form Chair of Governors

Consent form- Headteacher

Consent to Participate in questionnaires and interviews involving Newly Qualified Teacher

Inclusion and autism: Including pupils with autism in mainstream primary classrooms in East London.

Principal Investigator: Dr Janet Hoskin, School of Education and Communities, UEL, Water Lane, London E15 4LZ **Telephone**: 020 8223 2221 **Email**: J.Hoskin@uel.ac.uk

I have read the information leaflet relating to the above programme of research in which staff in my school have been asked to participate and the school has been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details with the teachers and the researcher and ask questions about this information. I understand what is being proposed and the procedures in which the school will be involved have been explained to me. In particular, I note that:

- Participation is voluntary and participants have the right to withdraw at any time or can withdraw any unprocessed data at any time.
- The consent from will be securely stored away from the data, and data will be stored electronically, and password protected.
- The researcher will take particular care in transcription and dissemination to ensure that organisation and participants will remain anonymous and, as far as possible, will not be able to be identified in any way.
- The findings will be disseminated be published as a part of a doctoral thesis, journals articles and professional presentations.

I understand that the school's involvement in this study, and particular data from this research, will remain strictly confidential. Only the researchers involved in the study will have access to the data. It has been explained to me what will happen once the observations, literacy logs and interviews have been completed.

I hereby freely and fully consent to the school participating in the study which has been fully explained to me. Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to the pupils or teachers and without being obliged to give any reason.

Chair of Governors Name (BLOCK CAPITALS)

███████

....

Chair of Governors Signature

....

Investigator's Name (BLOCK CAPITALS)

Janet Hoskin

Investigator's Signature:

Date: 20/02/18

Consent Form Headteacher 2

Consent form- Headteacher
Consent to Participate in observations and interviews involving Newly Qualified Teachers

Inclusion and autism: Including pupils with autism in mainstream primary classrooms in East London.

Principal Investigator: Dr Janet Hoskin, Cass school of Education and Communities, UEL, Water Lane, London E15 4LZ **Telephone:** 020 8223 2221 **Email:** J.Hoskin@uel.ac.uk

I have read the information leaflet relating to the above programme of research in which students and staff in my school have been asked to participate and the school has been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details with the pupils, teachers and the researcher and ask questions about this information. I understand what is being proposed and the procedures in which the school will be involved have been explained to me. In particular, I note that:

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I hereby freely and fully consent to the school participating in the study which has been fully explained to me. Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to the pupils or teachers and without being obliged to give any reason.

Headteacher's Name (BLOCK CAPITALS)

……………………………………………………………………….

Headteacher's Signature

……………………………………………………………………………..

Investigator's Name (BLOCK CAPITALS)

Janet Hoskin

Investigator's Signature:

Date: 23/02/18

Consent Form Headteacher 3

Consent to Participate in Questionnaires and interviews involving Newly Qualified Teachers

Inclusion and autism: Including pupils with autism in mainstream primary classrooms in East London.

Principal Investigator: Dr Janet Hoskin, Cass school of Education and Communities, UEL, Water Lane, London E15 4LZ **Telephone**: 020 8223 2221 **Email**: J.Hoskin@uel.ac.uk

I have read the information leaflet relating to the above programme of research in which students and staff in my school have been asked to participate and the school has been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details with the pupils, teachers and the researcher and ask questions about this information. I understand what is being proposed and the procedures in which the school will be involved have been explained to me. In particular, I note that:

- Participation is voluntary and participants have the right to withdraw at any time, or can withdraw any unprocessed data at any time.
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- The researcher will take particular care in transcription and dissemination to ensure that organisation and participants will remain anonymous and, as far as possible, will not be able to be identified in any way.
- The findings will be disseminated be published as a part of a doctoral thesis, journals articles and professional presentations.

I understand that the school's involvement in this study, and particular data from this research, will remain strictly confidential. Only the researchers involved in the study will have access to the data. It has been explained to me what will happen once the observations, literacy logs and interviews have been completed.
I hereby freely and fully consent to the school participating in the study which has been fully explained to me. Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to the pupils or teachers and without being obliged to give any reason.

Name of School:

▆▆▆▆▆▆▆▆▆

Headteacher's Name: (BLOCK CAPITALS)

▆▆▆▆▆▆▆▆

Headteacher's Signature

Date: 21/03/18
……………………………………………………………..

Investigator's Name (BLOCK CAPITALS)

DR JANET HOSKIN

Investigator's Signature …………………………………………

Date: …21/09/17…………………………

Participant Information Sheet

Inclusion and Autism: To explore the preparedness of Newly Qualified Teachers to include pupils with autism in two mainstream primary schools in East London

Conducted by: Maureen Okoye

University of East London

Cass School of Education and Communities
Water Lane
Stratford
London E15 4LZ

University Research Ethics Committee

If you have any queries regarding the conduct of this researcher and the nature of the research in which you are being asked to participate, please contact:

Catherine Fieulleteau, Ethics Integrity Manager, Graduate School, EB 1.43

University of East London, Docklands Campus, London E16 2RD

(Telephone: 020 8223 6683, Email: researchethics@uel.ac.uk

The Principal Investigator(s)

Dr Janet Hoskin

Telephone: 020 8223 6301

Email: J.Hoskin@uel.ac.uk

Consent to Participate in a Research Study

The purpose of this letter is to provide you with the information that you need to consider in deciding whether to participate in this study

Project Title:

Inclusion and Autism: To explore the preparedness of Newly Qualified Teachers to include pupils with autism in two mainstream primary schools in East London.

Project Description

To explore the preparedness of Newly Qualified Teachers to include pupils with autism in two mainstream primary schools in East London. The study also aims to measure the impact of a training intervention on the perception and attitudes of Newly Qualified Teachers.

Aims of the Research

To explore the preparedness of Newly Qualified Teachers to include pupils with autism in two mainstream primary schools in East London and the impact of a training intervention on the perception and attitudes of Newly Qualified Teachers.

The proposed study these research questions:

To what extent are Newly Qualified Teachers prepared to include pupils with autism in their mainstream classrooms?

To address this central theme the study will focus on the following sub-questions stemming from this main one:

1. What is the perception and attitudes of newly qualified teachers about their preparedness to include pupils with autism in their mainstream classrooms?

2. How effectively will a ten-week training intervention that combines the theoretical understanding of autism with established best practice in a special resource provision prepare newly qualified teachers to include autism spectrum pupils?

Methodology and Methods:

Action research is suitable for my study because it supports in- depth research design, gathering data and data analysis and has an added dimension of wanting to improve practice (Robson, 2002). This small-scale study will comprise of quantitative (questionnaires) and qualitative (interviews) evidence gathering.

The researcher will use questionnaires and semi structured interviews to gather data on pre and post intervention perception about NQTs' preparedness and attitudes towards autism and pupils with autism.

Confidentiality and Anonymity:

Names of participants and their location will be allocated pseudonym names and participants' privacy will be respected. The schools in which observations and interviews will take place will be kept confidential and anonymous. The researcher will make every effort to give complete anonymity in the study. However, because of the relatively small size of the sample no guarantee can be given of complete anonymity in this study.

Ethics:

The researcher is seeking approval for this study from the University of East London Research and Ethics Committee.

Data Protection:

Confidentiality of data will be protected, although the confidentiality of information provided is subject to legal limitations. All data generated in the course of the research will be retained in accordance with the University's Data Protection Policy. Data will be stored electronically, and password protected with access only to the principal researcher and the researcher.

Audio recording:

Audio recording will be used in all interviews to enable research to gather data and information. The university data protection policy will be adhered to strictly.

Limits of confidentiality:

Limitations of confidentiality may apply where disclosure of imminent harm to self and/or others occurs. It is important to note that the small size of group may have implications for confidentiality / anonymity. This is why steps have been taken to guarantee all participants that participation in the research will have no impact on assessment of their schoolwork or performance management because views expressed in interviews will not be passed on to line managers or hinder/affect career pathways and /or progression. Participation in the project is voluntary and participants are free to withdraw themselves at any time, however any data already supplied can only be withdrawn up to the point of analysis.

Withdrawal from Project:

You are not obliged to take part in this study and are free to withdraw at any time and to withdraw any unprocessed data previously supplied. Should you choose to withdraw from the programme you may do so without disadvantage to yourself and without any obligation to give a reason. Any research information gathered, or views expressed during interviews will not be passed on to any line managers and /or used as basis of any assessment of performance or career progress.

Dissemination:

It is anticipated that the research findings will be published in the form of a Doctoral Thesis and a copy will be kept by the University of East London.

Disclosure and Barring Service checks

Please note that the research has passed the appropriate Disclosure and Barring Service checks.

Further Information:

If you have any further questions about this research, please do contact Dr Janet Hoskin (Principal Researcher) on 0208 223 6301 or J.Hoskin@uel.ac.uk

Concerns arising during the research:

If you have any concerns about the conduct of the researchers or any other aspect of this research project, please do contact researchethics@uel.ac.uk

Consent form – Adults UNIVERSITY OF EAST LONDON

Consent to Participate in interviews, questionnaires and training programme involving Newly Qualified Teachers in two East London Schools

Inclusion and Autism: To explore the preparedness of Newly Qualified Teachers to include pupils with autism in two mainstream primary schools in East London

Principal Investigator: Dr Janet Hoskin, Cass school of Education and Communities, UEL, Water Lane, London E15 4LZ **Telephone**: 020 8223 6301 **Email**: J.Hoskin@uel.ac.uk

I have read the information leaflet relating to the above programme of research in which I have been asked to participate and I have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details with the researcher and ask questions about this information. I understand what is being proposed and the procedures in which I will be involved have been explained to me. In particular, I note that:

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- The consent from will be securely stored away from the data, and data will be stored electronically, and password protected.
- The researcher will take particular care in transcription and dissemination to ensure that organisation and participants will remain anonymous and, as far as possible, will not be able to be identified in any way.
- The findings will be disseminated be published as a part of a doctoral thesis.

I understand that my involvement in this study, and particular data from this research, will remain strictly confidential. Only the researchers involved in the study will have access to the data. It has been explained to me what will happen once the observations and interviews have been completed.

I hereby freely and fully consent to participate in the study which has been fully explained to me. Having given this consent I understand that I have the right to withdraw from the study at any time without disadvantage to myself and without being obliged to give any reason.

Participant's Name (BLOCK CAPITALS) …………………………………………………………………………

Participant's Signature …………………………………………………………………………………………….

Investigator's Name (BLOCK CAPITALS) ……………………………………………………

DR JANET HOSKIN

Investigator's Signature ………………………………………………………………………………………

Date: …………………………….

Annexe 2
UNIVERSITY OF EAST LONDON

Consent to Participate in a Programme Involving the Use of Human Participants.

By Maureen Okoye

Inclusion and Autism: To explore the preparedness of Newly Qualified Teachers to include pupils with autism in two mainstream primary schools in East London

Principal Investigator: Dr Janet Hoskin, Cass school of Education and Communities, UEL, Water Lane, London E15 4LZ **Telephone**: 020 8223 6301 **Email**: J.Hoskin@uel.ac.uk

Please tick as appropriate:

	YES	NO
I have the read the information leaflet relating to the above programme of research in which I have been asked to participate and have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I understand what is being proposed and the procedures in which I will be involved have been explained to me.		
Interviews will be audio recorded for transcript. Please confirm that you are happy to give consent for audio recording of interviews.		
I understand that my involvement in this study, and particular data from this research, will remain strictly confidential as far as possible. Only the researchers involved in the study will have access to the data. *(Please see below)*		
I understand that maintaining strict confidentiality is subject to the following limitations: Names of participants and their location will be allocated pseudonym names and participants' privacy will be respected. The researcher will make every effort to give complete anonymity in the study. However because of the relatively small size of the sample no guarantee can be given of complete anonymity in this study. Please indicate that you are still happy to consent.		
Would you like to be named in publications?		
It is anticipated that the research findings will be published in the form of a Doctoral Thesis and a copy will be kept by the University of East London.		
It has been explained to me what will happen once the programme has been completed.		

I understand that my participation in this study is entirely voluntary, and I am free to withdraw at any time during the research without disadvantage to myself and without being obliged to give any reason. I understand that my data can be withdrawn up to the point of data analysis and that after this point it may not be possible.		
I hereby freely and fully consent to participate in the study, which has been fully explained to me and for the information obtained to be used in relevant research publications.		

Participant's Name (BLOCK CAPITALS)

…………………………………………………………….

Participant's Signature

……………………………………………………………………………..

Investigator's Name: DR JANET

HOSKIN……………………………………………….

Investigator's Signature

………………………………………………………………………………

Date: …………………………

Appendix D − Pre-intervention questionnaire for participants

I fully appreciate your cooperation in completing this questionnaire. This research aims to improve the preparedness of Beginner Teachers to include pupils with autism in their mainstream classrooms. I would also like to point out that data gathered in this questionnaire would be treated confidentially and presented only in summary form without the name or affiliation of the respondent. *Please return the completed questionnaire to the box in the drop box in the school office labelled action research.

This section will seek to understand your prior experience, knowledge and understanding of autism and Inclusion.

7	Question	1= not at all	2= very little	3= a little	4= quite a lot	5= a very great deal
1	How would you rate your knowledge of autism and how autism affects autistic pupils?		✓			
2	How would you grade your knowledge of inclusion and inclusive practice?		✓			
3	Have you had the opportunity to work closely with pupils with autism?			✓		
4	Give more details of your experience of working closely with autistic pupils before commencing teaching.	• xxx school for 2 weeks during PGCE				

This section seeks to understand how equipped you are to work with pupils with autism.

5	Would you say that you have strategies to include autistic pupils in your class?			✓		
	If yes, give examples	• Visual timetable				
6	How would you rate your confidence in working with autistic pupils?		✓			
7	How has experience during teacher training helped to equip you with working with autistic pupils?			✓		
8	How has experience during in-school CPD helped to equip you with working with autistic pupils?	✓				
9	On a scale of 1 – 5 How would you rate your preparedness to work with autistic pupils in terms of knowledge? In terms of theoretical strategies?	1				
10	On a scale of 1 – 5 How would you rate your preparedness to work with pupils with autism in term how to support them to engage with work and other pupils? In terms of practical strategies?	1 1				

Appendix E – Participant-led pre-intervention interview questions

Pre-interview questions

Interviewer	Participants
Date of interview	3/5/18
Length of interview	40 minutes
Type of interview	**Group** – Pre-intervention interview

Research questions

To what extent are beginner teachers prepared to include pupils with autism in their mainstream classrooms?

1. What are the perceptions and attitudes of beginner teachers about their preparedness to include pupils with autism in their mainstream classrooms?
2. How effectively will a 10-week training intervention that combines the theoretical understanding of autism with established best practice in a special resource provision prepare beginner teachers to include autism spectrum pupils?

The interview commenced at 2 pm and lasted for approximately 40 minutes.

The group interview

Q1. What previous experience did you have with autism or autistic pupils before training as a teacher?
Q2. How would you describe your knowledge and understanding of autism?
Q3. What does inclusion mean to you in relation to pupils with autism?
Q4. What is your perception of working with pupils with autism in terms of being equipped to work with them?
Q5. How would you describe your preparedness through teacher training to support pupils with autism?
Q6. How would you describe your preparedness through in-school CPD to support pupils with autism?
Q7. Do you feel that you would benefit from engaging in a 5-week action research theory-based training about inclusion and autism?
Q8. Do you feel that a 5-week action research project with practical experience in a special resource provision will improve your professional practice?


Appendix F – Categories of how themes were grouped

Main themes	Sub-themes (2) S2.1 to S2.5
1. Beginner teachers' lack of understanding of autism 2. Complexity of inclusion 3. Beginner teachers' lack of preparedness 4. Addressing misconceptions of autism 5. Combining theoretical knowledge of autism with hands-on practice 6. Collaborative learning opportunities	1. Participants' knowledge and experience of working with autism spectrum pupils at various points 2. Quality of teacher training and school induction 3. Willingness to learn, work with and support autism spectrum children 4. Participant's perception and attitude towards autism and autism spectrum pupils at various points 5. Values theory training and practical training and strategies learned.
Sub-themes (1) S1.1 to S1.6	**Sub-themes (3) S3.1 to S3.6**
1. Positive attitudes and approach to teaching 2. Inadequate initial teacher training and school induction/ CPD 3. Lack of knowledge of autism, inclusion and inclusive practice 4. Negative attitudes and perceptions of autism and autism spectrum pupils 5. Lack of pedagogical underpinning, gaps in theoretical understanding and practical strategies.	1. Changing attitudes and perceptions 2. Realisation of the impact of being ill-equipped 3. Understanding of the complexity of autism 4. Growing knowledge and confidence 5. Reflective teacher taking action to improve the ability to support autism spectrum pupils 6. Linking theory to practice
*Main themes informed by data **Sub-themes identified after initial coding (Sub 1) ***Subsequent themes Sub2 and Sub3 emerged during the data analysis and combining main themes.	

Appendix G − Examples post session activity completed by participants

Lesson 3 additional activity

1. How can you show more support and understanding in your practice?

- Recognise the physical challenges of autism as well as mental/behavioural
- Be accommodating – one approach will not always work (sometimes the child may want to be alone, other times with friends)
- Be flexible but set routines also

2. What can you contribute to removing barriers?

- More 1:1 time with class teacher to develop bond and help understanding
- Targeting therapy – music, computing, lego, art, toys, water etc
- Creating calm, positive working environment
- Being patient; thinking about instructions given

3. List 5 ways to create awareness across the school

- KS2/KS3 children with autism leading workshops, giving talks (like Christian)
- Personality profiles shared across all staff, not just class teacher (where relevant/appropriate)
- Training on streamlining instructions, simplifying expectations
- Roleplay with children and adults

Appendix H – Examples of Literature findings

Autism is complex and misunderstood	Autistic pupils are labelled stigmatised excluded	Inclusion is complex legislation policy and practice
Perception of autism as a deficit	beginner teachers inclusive practice	poor perceptions of autism
Theories of autism	Beginner teachers unequipped unsupported	ITE Induction SRP
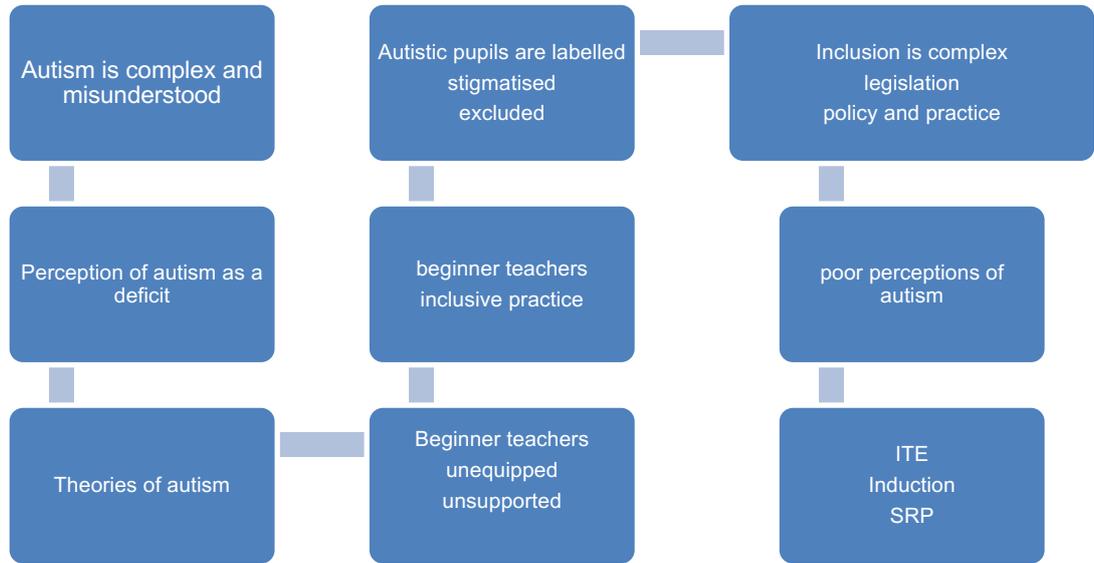
Appendix I − Extract of pre-intervention group interview conducted by participants

Q1. How would you describe your knowledge and understanding on autism?

P7. I wouldn't say I have great knowledge of it. I would say it is something to do social and communitive issues.

Miss Abbas. My knowledge and understanding of autism is that you look out for triggers and resolve it from there.

P2. It can manifest itself in different ways. It's not just triggers there are different degrees of severity. You can be really mild or severe.

P6. I know autism scale, but my understanding is limited. I am interested to learn more.

P8. Limited knowledge. During university there was only one lecture and that was all we had.

P3. I worked one to one with an autistic child who was non-verbal and I also a child who is high functioning. We need to look at the triggers, the situation and anxiety caused. If the child is content then he is quite settled. New situations will cause loads of triggers. It will be interesting to learn a little bit more.

P4. My knowledge is quite limited. In terms of working one to one with a child, he was high functioning, and it was all about looking out for the traits. Again, what triggered the anxiety and what were the coping mechanisms?

Q2. What does inclusion mean to you in relation to autistic pupils?

P6. Helping them to get along in the mainstream class.

P5. I would say allowing them to access curriculum at their level and understanding. So, it's tailored to them just as it would be in a special school. Need to bring the curriculum alive to them.

P7. To have the curriculum according to their understanding. They shouldn't be assessed as they are not on the same level as the rest. Not to be assessed.

P2. As they move up you notice the gap getting larger and larger as they are falling further behind. That's a challenge for inclusion. It's not an option to leave them behind. We have to try and adapt to their needs. So how we make that accessible to them?

Miss Abbas. Also, about finding their interest and really looking at that individual learning plan and tailoring the work around them. Include them into discussions and yes not all of them can do that but it's about making them feel included. That will give them more of an insight as to what goes in the classroom.

Q3. What is your perception of working with autistic pupils in terms of being equipped to work with them?

P2. How much training, resources and books?

P5. I have one child we thought had issues, but it appears he is autistic. I feel ill equipped and feel frustrated that he cannot access the curriculum. Then you have bad behaviour because he cannot access the curriculum. But also, there is a lot of work going on in the background by SENCO's, but we do not have access to that information.

P4. Sometimes if diagnosis is not there it doesn't always mean they don't have a need. Sometimes it's the lack of support in the classroom. It's quite difficult for the teacher to provide support if they do not have the right kind of diagnosis.

P8. It's really crucial for them to have one to one. The one to one has a huge art to play because when the support isn't there you can see and notice the difference in the child. Familiarity plays a big part.

P5. With autism they like routine and structure. Anything different to that they feel scared and threatened.

P2. That's one of the things that has affected me is the lack of consistency. My support has changed for the autistic children, and I do not have afternoon support and the parents are starting to pick upon it saying there is no communication. Parents are coming down

on me. So, it's important to have routine and familiarity. Also, their support should be for them when they need help and emotional support. If they don't have this their social structure is affected and the impact is evident in their behaviour and workbooks.

Q4. How would you describe your preparedness through teacher training to support autistic pupils?

Miss Abbas. Going back to university and attending the lectures. Looking into the theory was good but not good enough because we do not have the practical element of which is equally important.

P3. I agree with Miss Abbas. It would have been nice to have practical training in a special school with children suffering autism. In that respect this research will be good to see different strategies being implemented and developed.

P6. I am actually opposite to Miss Abbas and P3 because we didn't have any of the theory training instead we had two placements in SEN school for two weeks and 3 days. Yes, it was a good experience, but we didn't explore it afterwards.

P2. That was working one to one?

P6. It was observing and talked a little a bit

P5. I did work in a special school but not with any of the autistic children. Worked with the physically disabled. It was a good experience but being with the autistic unit would have been very beneficial in my current practice because I feel ill-equipped to deal with autistic children. I don't have the practical steps and feel frustrated I cannot help this child in my class.

P2. We as part of the SCITT had some theoretical training and we also visited a special provision school. A lot of what we experienced was based on behaviour. We observed in the classrooms, and a lot of what we heard and saw was more like, 'stay away from him he bites and kicks'. That was indicative towards the attitude of the children. We only see children for the behaviour. That can be the most dominant force and shouldn't be the thing that defines the pupil.

P8. Very limited. Listening to an hour lecture wasn't sufficient.

Q5. How would you describe your preparedness through in-school CPD to support autistic pupils?

P4. I think we should be given some training whether its visuals.

P6. Haven't actually had any training.

P2. I would really appreciate one to one time with my autistic children in my class. I never engage or have any time with them as they are with their support. We do not have any social interaction. Maybe at the start of the year have 15 mins with the teacher. That would be a form training like getting to know the teacher. What works and what doesn't and have a look at their baseline etc.

P3. That would be beneficial if you could also spend some time with the previous teacher like handover time. We can make a much better judgement.

P5. Follow on from P3 we had that handover in my school. The physical handover of paperwork and discussion with class teacher took place. If we knew there was a child with special we spend extra time with the previous teacher. We spent 30 to 45 mins with them and when came to September we knew exactly what to do which made the transition easier for them.

P2. Not just as a handover but also have it as a form training as on going. Maybe have a few sessions with the child because they are always removed from the class or whisked away for swimming. I feel I don't give them as much time I do with the other children.

Appendix J − Example of training intervention Phase 2

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Week 1

Aims of Lesson:

-To explore what autism is and identify the signs of and behaviours associated with autism.

-To understand the characteristics of autism.

Lesson Objectives:

Participants to write/describe what they understand about autism.

Learning outcomes for the lesson:

- All participants should be able to articulate the meaning of autism
- All participants should be able to list the three main symptoms of autism
- Most participants should be able to list 4 problems associated with socialization, communication and repetitive or inflexible behaviours
- Some participants should be able to list self-stimulatory behaviours

Assumed prior knowledge:

Participants are newly qualified teachers working at the school and may have some knowledge about the subject aims and objectives.

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Resources:

- Appendix 1
- Appendix 2
- Autism lens resource
- PowerPoint copy of the handout

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Key words:

- Autism
- Characteristics
- Knowledge
- Understanding
- Discuss
- Reflect

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<td>Key questions</td>
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- What is autism?
- What are the characteristics of autism?
- How does it affect people?
- What are some of the other signs?

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Reflection or feedback from previous lesson (Except if it is the first):

N/A

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What is autism?

Autism is a lifelong developmental disability that affects how a person communicates with, and relates to, other people. It also affects how they make sense of the world around them. It is a spectrum condition, which means that, while all people with autism share three main areas of difficulty, their condition will affect them in different ways. Some people with autism are able to live independent lives but others may need a lifetime of specialist support. (AET, Autism Education Trust, 2015).

- A developmental disorder of variable severity that is characterized by difficulty in social interaction and communication and by restricted or repetitive patterns of thought and behaviour (Oxford dictionary).
- Autism is a lifelong, developmental disability that affects how a person communicates with and

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relates to other people, and how they experience the world around them (National Autistic Society, 2016).

- Autism spectrum disorder (ASD) is the name for a range of similar conditions, including Asperger syndrome, which affect a person's social interaction, communication, interests and behaviour (NHS UK, 2016).
- Autism was first recognised as an official clinical disorder by Kanner in 1943, at this time it was considered to be a rare disorder with an estimated 2-4 out of every 10,000 affected (Wing and Porter, 2002).
- It affects how autistic spectrum pupils make sense of the world around them and it is characterised by difficulties in social interaction and communication (Rogers, 2000)
- Autism is much more common than most people think, there are around 700,000 autistic people in the UK - that's more than 1 in 100
- People from all nationalities and cultural, religious and social backgrounds can be autistic, although it appears to affect more men than women
- The exact cause of autism is still being investigated. Research into causes suggests that a combination of factors - genetic and environmental - may account for differences in development.

What are the characteristics of autism?

- Problems with socialising
- Problems with communicating
- Problems with repetitive and inflexible Behaviours

How does it affect people?

Problems with socialising

- Difficulty using non-speech behaviours
- Failure to develop peer relationships
- Lack of spontaneous seeking to share enjoyment, interests or achievement
- Lack of social or emotional responding

Problems with communicating

- Delay in or lack of spoken language
- Difficulty with starting, continuing a conversation
- Inflexible and repetitive use of language
- Lack of social initiative play

Problems with repetitive and inflexible Behaviours

- Rigid following of non-functional routines
- Obsessions with inflexible and limited interests
- Obsession with parts of objects
- Inflexible and repetitive movements.

Other signs of autism include sensory self- stimulatory behaviours manifested through:

- Body movement
- Visual
- Auditory
- Oral
- Tactile
- Smell

Time	Content & Facilitator Activity	Participants Activity	Resource
1.00	Introduce lesson aims and objectives of the lesson	Listen, ask questions	PowerPoint handout Appendix 2
1.15	Video on autism	Watch, listen & make notes	Video
1.30	Video is pulsed for discussion and questions	Discuss Ask questions	Video
1.45	What are the characteristics of autism? Facilitator input and explanations of autism	Listen, ask questions	Appendix 2 Autism-lens-resource.pdf
2.00	How does it affect people? Facilitator input and how autism affects pupils	What are the implications for teachers?	PowerPoint handout Appendix 2 Autism-lens-resource.pdf
2.10	Facilitator input On how to write a brief summary of understanding	Participants construct a brief written summary of autism and its characteristics drawn from resources	Appendix 2 PowerPoint handout
2.30	Facilitator input on how to use the autism core competency framework	Participants complete the competency frame linked to the lesson- the individual pupil	Appendix 1
2.50	Feedback- questions/issues	Feedback / questions	N/A
3.00	Sets reflection task	Participants to review notes and share reflections at the next lesson.	N/A

Appendix K – Example extract from the researcher's individual interview-

Participant 1 - P1a

Biological details
Name: P1a
Age: xxx
Gender: xxx
Ethnic group: xxx
Previous work experience: (aimed at beginner teachers who may have worked as teaching assistants or in SRPs)

Q2. How would you describe your knowledge and understanding of autism?

P1a: Honestly, limited, I had two training sessions at schools direct and I do not have much knowledge of autism and I also have not been exposed to a pupil with autism in own class so far. I just know that they have a disability, and it is extensive and profound. I also know that autism seems very complex.

Q3. What does inclusion mean to you in relation to pupils with autism?

P1a: Well, I believe that autistic pupils need to be in the mainstream classrooms. Being in classrooms and having individualised curriculum. I think it is also …umm having no limits to the curriculum, having curriculum tailored and being exposed to other children socially. Exposure will enable social interaction better than isolated to other autistic children alone. They will benefit from the opportunity to work with and …err interact with other children. At university, they gave us general lectures that covered behaviour of children and how support their behaviour. The emphasis was on behaviour and supporting behaviour, we... I did not get a sense of what autism meant. At school level, the school does cover safeguarding and using curriculum to include all children.

How would you describe inclusion of autism spectrum children?

P1a: I will say it is sometimes scary because, I do not always know what to do, it can be frightening because of that. It is difficult, I feel helpless. People said that the autistic children do not follow adults' instructions and are hard to manage. During my placement at a school, an autistic child urinated in front of other children in an open space; I was shocked because I have never seen such behaviour before. I felt uncomfortable other children had to endure that, but I certainly did not know how to handle it, nor did I feel equipped to deal with the situation.

Q4. What is your perception of working with pupils with autism in terms of being equipped to work with them?

P1a: Err mmm…(silence) I do not believe I am well equipped. I do have the exposure and some of my training did cover that… but I think it was not enough. Not sure of what to do if put in a situation. At training at xxxx Primary School a child was urinating in front of other children in an open space, but I did not feel – "I felt anxious because I did not ever see that before". I certainly did not know how to handle that or what to do, I was very surprised that I had no idea. Yeah, … (deep in thought) …I would like to know how to communicate with them in situations without aggravating them or making things worse, Watching the child and being helpless in knowing what to do was not good for me. I want to be able to know how to support them because I heard that autistic children hurt other children, as well as the adults that work with them and I am worried about that.

Q5. How would you describe your preparedness through teacher training to support pupils with autism?

P1a: Err mmm… we had two theory-based lessons during our SCITT training, and I was offered one day at a special school. At the special school, we were learning about behaviour; the school was not all about understanding them. But it was about managing behaviour, but we wanted to find out the reason for the behaviour and how to tackle the same behaviour if we came across it in our classroom. In hindsight, maybe I should have asked more questions but at the time, I did not have knowledge of the kind of question to ask.

MO: Did you feel the theory session during your training was sufficient to support you in class as a newly qualified teacher?

P1a: No- it was not enough, because I still know very little about autism, and particularly how to support children with autism. The training allocated too little time to understand and explore autism and added 'insufficient focus on autism.

I would have needed more; it was split into beginning and end of the session. To be honest until I arrived at the beginning of teaching year, I did not appreciate how much I did not know about supporting the children on your own as the teacher. During your training, there is always the main teacher to ask for help but it soon becomes obvious that once the class is your class and you realize that you are on your own and unprepared to deal with a huge range of needs, it is very …err daunting and at times you feel very helpless. During teacher training we had only one lecture, then we embarked on planned placements which lacked clarity or explanations.

Q6. How would you describe your preparedness through in-school CPD to support pupils with autism?

P1a: The experience and preparedness via CPD is similar to SCITT is not sufficient; it didn't have the practical element. The theory on its own is not enough but it was really short. The experience, err experience of seeing how they can be helped and any mistakes and errors and how to correct it was missing, the NQT training provided by the school on Wednesdays focuses on your general teaching school and how to move children on academically with some discussion on socio-emotional needs not enough. It addresses special educational needs a lot but not focused on autism. I have seen quite a few children with autism at the school during break duties; they are always with their support or one to one.

Q7. Do you feel that you would benefit from 5-week theory-based training about inclusion and autism?

P1a: Theory would be good but on its own or alone will not be enough a combination of theory and the ability see them in action and being supported will be beneficial. It's all about getting to know the children, understanding them a bit, which I don't have at the moment, but I know I could have a child with autism next year, so I want to be able to cope with anything that comes my way. I am curious because luckily, I do not have a child in my class with autism, but I see others really struggle. I have children with high needs, two have EHCP plan but not autistic and I struggled at the beginning with supporting them as well as the other children. Any knowledge or experience will be very helpful. I am looking forward to it really, especially as it is at a dedicated time and involves others too.

Q8. Do you feel that a 5-week practical experience in a Special Resource Provision will improve your professional practice?

Miss Abbasa: Yes, 30%/ 70% for me. It will definitely because it's all about finding out the triggers and err… anxiety personality. I think I need the practical side more; I want hands on work with autistic children, guided by a specialist or expert. I think… I know it will help me to be more confident in supporting even the children I have in my class now. The university training and the school CPD should provide more for teachers like me, I try my best, I am at work till quite late sometimes, but I don't know what I don't know. I am hoping that the training will help me gain some knowledge of what the SRP (Special resource Provision) staff do and how they manage the children.

MO: Is there any specific thing that you would like to learn?

Miss Abbasa: Well good understanding of autism and practical experience will do.

Evidence of Ethical Approval

Dear Maureen,

Application ID: ETH2223-0278

Original application ID: UREC 1718 15

Project title: Inclusion and Autism in primary education - An exploratory intervention on the Preparation of beginner teachers in England.

Lead researcher: Mrs Maureen Okoye

Your application to Ethics and Integrity Sub-Committee (EISC) was considered on the 11th December 2023.

The decision is: **Approved**

The Committee's response is based on the protocol described in the application form and supporting documentation.

Your project has received ethical approval for 4 years from the approval date.

If you have any questions regarding this application please contact your supervisor or the administrator for the Ethics and Integrity Sub-Committee.

Approval has been given for the submitted application only and the research must be conducted accordingly.

Should you wish to make any changes in connection with this research/consultancy project you must complete 'An application for approval of an amendment to an existing application'.

Approval is given on the understanding that the [UEL Code of Practice for Research](#) and the [Code of Practice for Research Ethics](#) is adhered to.

Any adverse events or reactions that occur in connection with this research/consultancy project should be reported using the University's form for [Reporting an Adverse/Serious Adverse Event/Reaction](#).

The University will periodically audit a random sample of approved applications for ethical approval, to ensure that the projects are conducted in compliance with the consent given by the Ethics and Integrity Sub-Committee and to the highest standards of rigour and integrity.

Please note, it is your responsibility to retain this letter for your records.

With the Committee's best wishes for the success of the project.

Yours sincerely,

Fernanda Da Silva Hendriks

Administrative Officer for Research Governance