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What Helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with Special Educational Needs and Disabilities: A Q-Methodology Study.

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Abstract

Inclusion continues to be an important goal for all children attending schools in England. Whilst this is stated in the Special Educational Needs and Disability (SEND) code of practice, there is a lack of clarity regarding *how* to facilitate inclusive classrooms. Teachers are key facilitators of inclusion, and this incorporates primary school teachers at the beginning of their career. Addressing a key gap in the literature, this study explores the views of fourteen primary school teachers (in their first, second and beginning of third year of teaching) regarding what helps them to facilitate the inclusion of pupils with SEND in mainstream schools.

Using Q-methodology, this study brings together the advantages of quantitative and qualitative approaches, to clarify participants holistic and subjective views and promote open communication around a complex topic. Participants completed a 32 statement Q-sort, arranging possible answers to the question *"what helps you to facilitate the inclusion of pupils with SEND in your classroom"* on a continuum from more helpful to less helpful. Findings show that most statements (24 out of 32) were considered helpful. By-person factor analysis revealed three distinguishable viewpoints and highlight the importance of the following areas:

- Viewpoint 1: Relationships and collaboration with pupils, parents, and staff.
- Viewpoint 2: Experience, advice, and training.
- Viewpoint 3: Teacher-pupil relationships, experience, and independent learning.

Results suggest that a singular approach toward inclusion may not be appropriate, with a range of areas considered helpful for participants. However, areas of consensus show that teacher-pupil relationships and support from the SEND coordinator were helpful for all 3 viewpoints. This study develops our understanding of what helps primary school teachers at the beginning of their career to facilitate inclusion – providing ways forward for future research and individuals with a desire to promote inclusive practice.

What Helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with Special Educational Needs and Disabilities: A Q-Methodology Study.

Chapter 1- Introduction

This study aims to explore the range of viewpoints held by primary teachers at the beginning of their career regarding what helps them to facilitate the inclusion of pupils with Special Educational Needs and Disability (SEND). This study makes a unique contribution by addressing a key gap in the existing literature and contributes novel insight to help promote inclusive classrooms in England. The findings from this study will help educational professionals to build upon areas considered helpful for primary school teachers at the beginning of their career, as well as indirectly support the inclusion of pupils with SEND.

1.1 Rationale for Research Investigating Inclusion.

Inclusion describes the continuous process of eliminating barriers to education and promoting participation of all pupils in the same educational space (Schuelka, 2018). All schools have a duty to promote inclusive education for all (Equality Act, 2010; United Nations, 2006; DfE & DoH, 2015). However, the SEND system is critiqued for limited research and guidance on how pupils can be better included in mainstream schools (Crocker, 2023). Furthermore, the House of Commons Education Committee (2018, 2019, 2020) have raised concerns that schools appear to have shifted away from inclusive practice, and not promote inclusion sufficiently. Thus, the area of inquiry is of significant interest for educational researchers and those seeking to promote inclusion (Ainscow et al., 2006).

1.2 Rationale for Research Investigating Primary Teacher Views.

The retention of teaching staff is an international concern (Malm, 2020; OECD, 2005; Schwartz et al., 2007). In England, one in three teachers are leaving the profession within the first five years of qualifying (Department for Education, 2022; Foster, 2018; Long & Danechi, 2022). Although it is argued that teachers are key facilitators of inclusion, very few studies have investigated this topic with primary school teachers in their first years of teaching in the United Kingdom (Rouse, 2008). Moreover,

no research has explored whether there are similar or divergent views on what helps this population group to facilitate inclusion. Since practicing primary school teachers make daily teaching and planning decisions for the education of pupils with SEND, their experience provides valuable information about what enhances inclusive classrooms (Kamens et al, 2003; Wolery et al, 1995). It can be reasoned that to support primary school teacher retention and promote inclusive classrooms, their views must be considered to identify what is helpful for them. Thus, the present study seeks to gain the views of this valuable population group, whom are currently under represented within educational research, and where staff retention is particularly challenged (Jerrim, 2021).

1.3 Personal and Professional Motivations for this Research

Personal and professional motivations for this area of inquiry are drawn from the researcher's experience as a primary school teacher in England for four years. During this experience, positive effects of inclusive practice were observed firsthand. However, it was also noticed that there was minimal guidance available to support primary school teachers on *how* to facilitate inclusion. This led to the researcher's desire to explore what might help primary school teachers at the beginning of their career to facilitate inclusion. The researcher's current role as a trainee Educational Psychologist (EP) further enhanced their desire to promote inclusive practice, aligning with the researcher's own values and the values of their placement Educational Psychology service. During their experience as a trainee EP, they observed how EPs were well-placed to support primary school teachers to facilitate inclusion. They also recognised the importance of listening to teachers' voices and building upon what is working well. Drawing upon a strength-based approach to research, the findings will add new knowledge to the body of literature, which can contribute to systemic change and inform:

- Educational Professionals (such as EPs) - to build upon the areas considered helpful for primary school teachers at the beginning of their career and support schools to facilitate the inclusion of pupils with SEND.
- Educational Systems (for example, teacher training programs) – to better prepare and equip newly qualified teachers to facilitate inclusion and reduce the attrition of primary school teachers.

1.4 Overview of the Thesis

This study aims to investigate *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND in mainstream classrooms*. Using Q methodology (Q), this study explores the commonalities and differences in views held by a valuable, relevant, and underrepresented population group about a complex, ambiguous, and socially contested topic.

The research is presented in the following structure:

- *Chapter 2 – Literature Review*

  The *narrative* literature review explores existing research regarding inclusion and what factors facilitate the inclusion of pupils with SEND. The *systematic* literature review focuses on the views on inclusion of primary school teachers in the UK to inform the research question.
- *Chapter 3 – Methodology*

  This chapter outlines the aims, epistemological stance, alternative research designs, quality criteria, and ethical considerations for the present study. An overview of each Q step is provided alongside the details of the present study. A glossary of key terms can be found in Appendix 1.
- *Chapter 4 – Results*

  This chapter outlines the by-person factor analysis procedure and presents the factor arrays, interpretations, and subsequent viewpoints that emerged from the data.
- *Chapter 5 – Discussion*

  This chapter provides a summary of the research findings and considers these with existing literature. The strengths and limitations of the study, implications, and conclusions are discussed.

Chapter 2 – Literature Review

2.1 Chapter Introduction

This chapter aims to critically review existing literature and justify the identified research area. This literature review will include two sections. Firstly, the **Narrative Literature Review** will define key terminology and consider why research into inclusive education is important, what factors facilitate the inclusion of pupils with SEND and why listening to the views of primary school teachers may provide us with valuable information. To achieve this, the narrative review will progress through the following areas:

Why is research investigating inclusive education important?

- *What is meant by inclusion?*
- *What legislation exists about inclusion?*
- *What are the barriers to inclusion?*
- *What is the impact of inclusion?*

What factors facilitate the inclusion of pupils with SEND?

- *What is known on a national and local authority level?*
- *What is known within the school context?*
- *What is known within the classroom context?*
- *What are teachers' views and attitudes regarding inclusion?*

Secondly, the **Systematic Literature Review** will outline, appraise, synthesise, and discuss research investigating the views of primary school teachers at the beginning of their career on inclusive education in the UK, concluding with a rationale for the present research study, outlining how it intends to make an original contribution to educational psychology research and practice.

2.2 Narrative Literature Review

2.3 Investigating Inclusive Education

2.3.1 What is Meant by Inclusion?

Inclusion is described as a continuous process that actively promotes the participation of all pupils in the same educational space and eliminates barriers to education (Florian et al., 2016; Schuelka, 2018). However, researchers investigating inclusion state that there is *'not one single model of what an inclusive school looks like'* (Banks, 2023, p. 16), nor is there an agreed definition of inclusion within literature, highlighting that inclusion is a complex multi-faceted construct (Frater, 2021; Fuchs & Fuchs, 1994; SEN Policy Research Forum, 2019). Rather than something which is achieved, inclusion is often described as a journey, movement, process, or philosophy that is strived towards (Banks, 2023; Graham, 2020; Lacruz-Pérez et al., 2021). For this reason, it is integral that each educational setting identifies any barriers to inclusion and mobilises resources to address those barriers (Banks, 2021; Booth & Ainscow, 2002; UNESCO, 2017).

In their guide for ensuring inclusion and equity in education, the United Nations (UN) summarise: "*The central message [for inclusive education] is simple: every learner matters and matters equally.*" (UNESCO, 2017, p. 12). Research highlights key notions that are fundamental to our understanding of inclusive educational environments:

- All pupils are valued members within the classroom and are educated together (Ferguson, 2008).
- All pupils have the potential to progress and none should be excluded based on individual capabilities (BPS, 2002; Losberg & Zwozdiak-Myers, 2021)
- All pupils feel welcomed and supported (Banks, 2023; Dyson et al., 2004)
- All pupils' learning matters equally (Banks, 2021; UNESCO, 2017)

It is important to note that inclusion goes beyond the physical placement of children in mainstream schools and is distinctly different from exclusion, segregation, and integration (Brown, 2018;

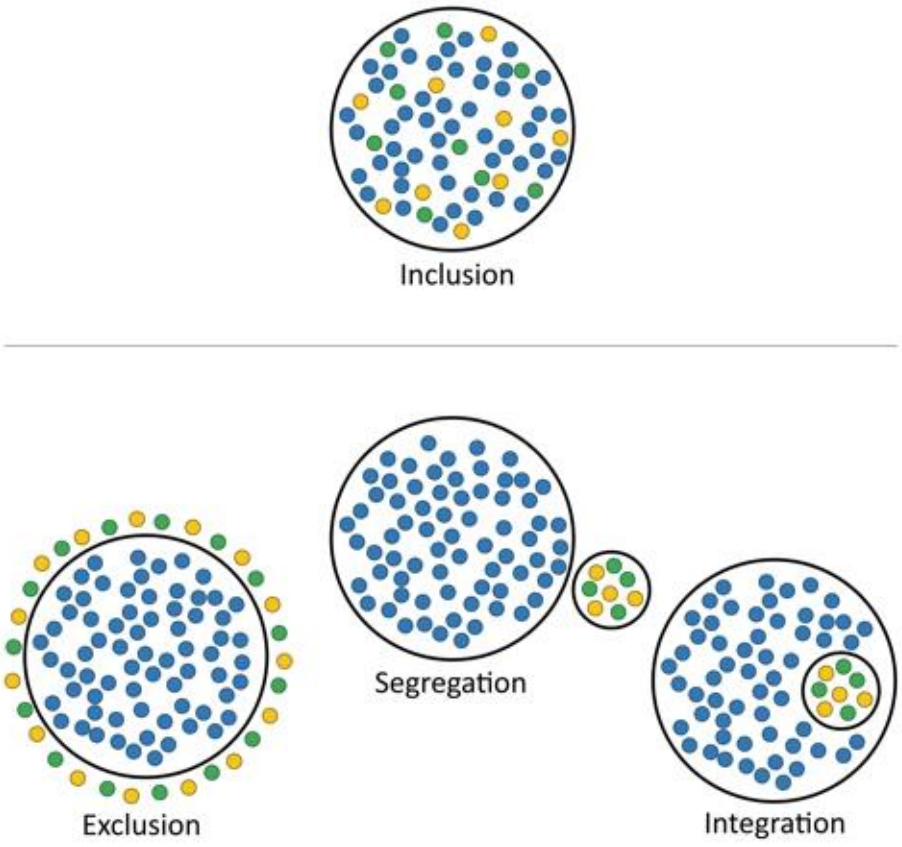
Kalambouka et al., 2007; Odom et al., 2011). This concept is visually portrayed in Figure 1 and will now be described:

- Exclusion occurs when individuals are *left out* or denied access to education.
- Segregation occurs when individuals are provided with *separate* access to others.
- Integration occurs when individuals are placed in the *same educational space* as others, if they can adjust to the standardised requirements.

Instead, inclusion is a proactive stance which overcomes barriers that limit the presence, participation, and achievement of learners and challenges schools to make *"adaptations and adjustments to cater for the needs of diverse learners"* (Glazzard, 2014, p. 40).

Figure 1

A figure to visually portray how inclusion is different to exclusion, segregation, and integration.

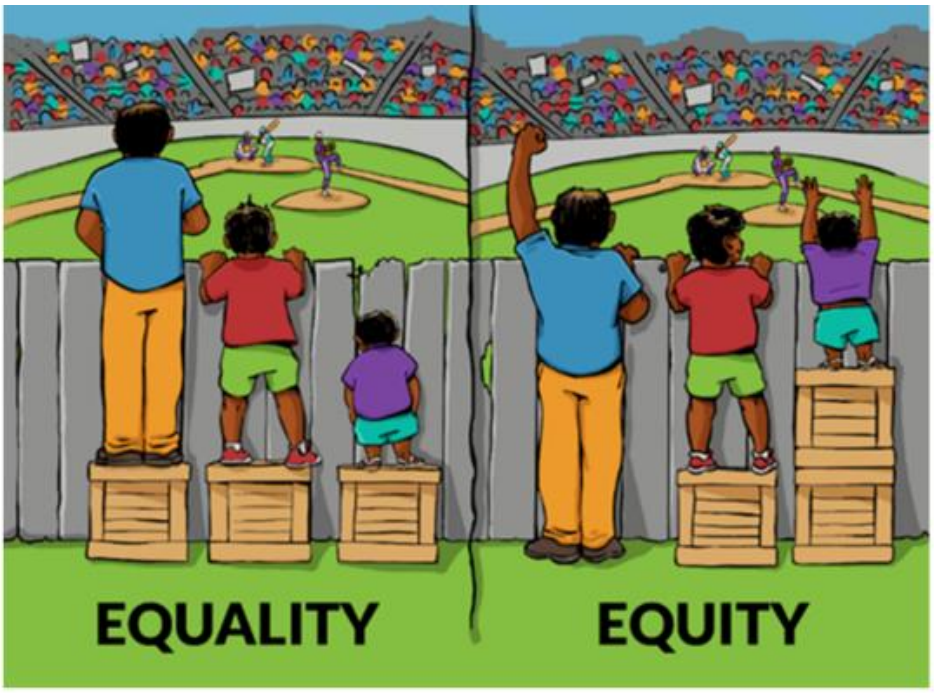


Note: Source Inclusive School Communities (2023).

Inclusion is often described in conjunction with 'equity' and a social justice concern (Haug, 2020; Hirshberg et al., 2023; UNESCO, 2017). Equity describes the notion of fairness. It acknowledges that not all individuals start from the same place, ensuring everyone has access to the same opportunities. This concept is different to 'equality' which promotes sameness. Figure 2 visually portrays the importance of equitable practice and making reasonable adjustments to promote the participation and inclusion of all pupils in mainstream schools (Chapman & Ainscow, 2021; OECD, 2008; UNESCO, 2017). It is argued that *"Inclusion has to be seen as the never-ending search to find better ways of responding to diversity*" (Banks, 2023, p. 14).

Figure 2

A figure to visually portray what is meant by equity (fairness) and equality (sameness).



Note: Source Maguire (2016).

In recent years, research investigating inclusive education has advanced, encompassing a vast range of research questions and methodologies (Brown, 2018). However, research investigating the impact of inclusion is limited due to difficulties defining the independent variable (Cline et al., 2015), as there is not yet an agreed definition within existing literature and legislation (Frederickson & Cline, 2015). As

this study aims to provide implications for EP's promoting inclusive education in schools, the British Psychological Society (BPS, 2002) definition of inclusion will be used. Inclusion:

- *Rejects segregation or exclusion of learners.*
- *Maximises the participation of all learners.*
- *Makes learning relevant and meaningful for all.*
- *Rethinks and restructures policies, culture, and practice in educational settings so that diverse learning needs can be met.*

2.3.2 Inclusion Legislation

There has been a universal movement and commitment toward greater levels of inclusive practice in mainstream education (Florian & Black-Hawkins, 2011; Graham, 2020; Hodkinson & Williams-Brown, 2022), which has been affirmed by both legal and non-legal guidance (UNESCO, 2017). It is helpful to note the evolution of the UK government's commitment to inclusive education through the following legislation:

- The **Salamanca Statement** (UNESCO, 1994):
  Outlines an international commitment to inclusion, to ensure all pupils learn together (and can attend their local school) irrespective of difference or disability.

- **Ofsted Report** (2000, p.7):
  Reinforced the UK Governments inclusion strategy stating *'effective schools are educationally inclusive schools'.*

- The **United Nations Convention on the Rights of Persons with Disabilities** (2006):
  Articles 7 and 24 outline the international commitment to inclusive education of pupils with disabilities and the progressive removal of barriers to learning and participation in mainstream education.

- The **Equality Act** (2010):
  provides lawful protection from discrimination for disabled pupils in UK education.

- **"Support and Aspiration" Green Paper** (DfE, 2011, p. 5):
  Promoted a larger emphasis on parental choice (of children with SEND), with their intention to *'remove the bias towards inclusion.'*

- The **Children and Families Act** (2014):
  Which states the UK Government's commitment to improve services for vulnerable pupils and their families, reinforcing the notion that all pupils can succeed and progress (no matter what their background).

- The **Special Educational Needs and Disabilities (SEND) Code of Practice** (DfE & DoH, 2015):
  The Code of Practice (2015, p. 25) highlights the UK Government's commitment to inclusive practice within education and states the expectation for schools to progressively remove barriers to learning and promote the participation of pupils in mainstream education.

A key theme from the legislation outlined is that education is a human right and should be accessible for *all* children (Vitello & Mithaug, 2013). Policy and legislation create a framework for inclusion and articulate the values, principles, and rights that are essential to support education for all (UNESCO, 2017).

However, the UK Government's current legislation has been critiqued for offering a confused, ambiguous, and equivocal stance toward inclusion (Brown, 2018; Lambert & Frederickson, 2015; Lindsay, 2007; SEN Policy Research Forum, 2019). This is particularly highlighted through inclusion being stated as an expectation of all mainstream schools across the UK (DfE & DoH, 2015), without a clear definition of inclusion or guidance on how inclusion should be implement (Crocker, 2023; Frederickson & Cline, 2015).

2.3.3 Inclusion Statistics

National statistics suggest a possible dilution of the UK government's inclusion strategy, with increased rates of SEND pupils being educated in separate settings (DfE, 2023; SEN Policy Research Forum, 2019). A summary of the most recent statistics from the Department for Education (2023a) showed a 13% increase in the number of pupils accessing state-funded Alternative Provisions (AP) in the last year - from 11684 pupils in 2022 to 13191 pupils in 2023. Additionally, research has indicated a possible

'slowing down' of the government's inclusion strategy. Norwich (2008; 2014) shows how the number of pupils accessing specialist settings gradually decreased between 1983 -2001, began to plateau between 2001 - 2008 (Norwich, 2008), and marginally increased between 2007 -2014 (Norwich, 2014). These statistics support the argument that not enough is being done to promote inclusive education (House of Commons Education Committee, 2018, 2019, 2020; SEN Policy Research Forum, 2019).

2.3.4 Barriers to Inclusion

This section will outline some of the many barriers to inclusion that prevent it from being embraced and implemented within educational settings. This will include the contradictory nature of government agendas, the lack of guidance on how inclusive practices can be implemented, and the challenges for research investigating this area of inquiry.

Firstly, the current national policy creates a systemic barrier to the restructuring of education settings toward greater levels of inclusion (Szumski et al., 2017). There is significant pressure for educational settings to uphold their commitment to opposing government agenda:

- To raise academic standards for all pupils *(attainment agenda)*
- To develop educationally inclusive policies and practices *(inclusion agenda)*

This tension is well documented within research (Ainscow et al., 2006; Brown, 2018; Rouse & Florian, 1997), with many purporting them to be deeply contradictive and incompatible within national policy (Farrell & Ainscow, 2002; Florian et al., 2004). This leaves school leaders with a complex dilemma – whether to strive towards 'excellence' or 'equity'. Moreover, the publication of school league tables, standardised test results and published Ofsted reports have further increased the challenge for educational settings to include pupils who may 'taint' school reputation and attainment, thus increasing the likelihood of the pupil being at risk of exclusion or encougaged to move to special schools (Arnold et al., 2009; Hallam, 2014).

Researchers are concerned about the impact which the UK's current educational system may have on practitioners, parents, and pupils, as the system currently only measures 'success' in academic terms (Rose, 1998; Rose & Howley, 2001). Not only is this an inevitable disincentive for schools to strive toward inclusive practice, but it also reinforces to parents a specific message about what is to be valued

in education (Booth et al., 1997; Rose, 2001). Moreover, researchers highlight how the educational system places a greater emphasis on *proving* rather than *improving*, which may force the fabrication of success (Allan, 2007; Ball, 2000). When acknowledging this barrier to inclusion, Rose (2001) concludes that there is still much to be done to develop schools and communities that prioritise social justice.

Secondly, whilst all schools in the UK have a duty to promote inclusive education for all pupils in mainstream classrooms (Equality Act, 2010; United Nations, 2006; DfE & DoH, 2015), the SEND system is critiqued for limited research and guidance on *how* pupils can be better included in mainstream English schools (Crocker, 2023; Frederickson & Cline, 2015). For example, Allan (2007), states that there is a deep uncertainty about how to create inclusive environments within schools and teach inclusively. In addition, the House of Commons Education Committee (2019, p. 26) states that *'we have a system of unmet need and strain'* with not enough being done to promote inclusive education and ensure pupils with SEND receive a high standard of education (Frater, 2021). It has been suggested that current legislation may be inadvertently or deliberately encouraging the demand for specialist provision rather than increasing pupils' access to mainstream education (SEN Policy Research Forum, 2019, p. 242) perhaps in part due to the limited guidance on how schools facilitate the inclusion of an increasingly diverse range of needs (Brown, 2018).

Furthermore, research shows that school practitioners have limited experience working with pupils with complex SEND and feel unequipped to meet their needs. Teachers are widely recognised as key implementers of inclusion - minimising barriers to learning and promoting the participation of all pupils in mainstream classrooms (Booth et al., 2000; Peček et al., 2008; Schuelka, 2018). Despite this, research appears to indicate that teachers do not feel adequately prepared to teach pupils with SEND (deBettencourt, 1999; Golder et al., 2005; Kearney & Durand, 1992; Rouse, 2008; Meister & Melnick, 2003). Teachers feel that inclusive education is something they are told to do, without being given sufficient support and resources to be effective (Kamens et al., 2003; Schuelka, 2018; Singal, 2019). Researchers are concerned that this may in turn result in teachers abdicating their responsibilities toward individual pupils in their class to Teaching Assistants (TA) or Special Educational Needs Coordinators (SENCo) who are perceived to have more experience or expertise with SEND (Farrell, 1998). Rose (2001) argues that teachers must first accept the responsibility for educating all pupils before inclusion can be achieved.

Finally, in terms of research, the loose, ambiguous, and subjective nature of the term 'inclusion' creates fundamental challenges for researchers attempting to evaluate inclusive practice (Kalambouka et al., 2007). To date, there is not yet an agreed or consistent definition within the literature (Frederickson & Cline, 2015 Fuchs & Fuchs, 1994) leading to difficulties in reviewing research investigating inclusion as a collective (Hodkinson, 2006). For example, it is possible that some researchers may refer to the physical placement of pupils in educational settings as 'inclusion' whilst others would refer to this as 'integration' (see Figure 1). Frederickson and Cline (2015) note that many pupils who have been described as 'included,' may in fact be receiving a combination of segregated, integrated, and inclusive practice. Bunch and Valeo (2004) note how some researchers may not present a definition for 'inclusion' in their research making it difficult to uncover what their findings show. This difficulty in judging how inclusive a particular education setting is, presents a clear barrier to the development of evidence-based practice and knowledge regarding inclusive education (Forlin & Loreman, 2014; Lambert & Frederickson, 2015).

2.3.5 What is the Impact of Inclusion?

What is the impact of inclusive education? Why should schools strive to become more inclusive? These are key questions to consider when investigating this area of inquiry (Kart & Kart, 2021). Research over the last few decades indicates overall neutral-positive outcomes for *all* pupils (including those with SEND) taught in inclusive settings (Kalambouka et al., 2007; Lindsay, 2007; Oh-Young & Filler, 2015; Ruijs & Peetsma, 2009; Staub & Peck, 1994; Szumski et al., 2017). A summary of findings from a range of systematic reviews and meta-analyses is discussed below.

Firstly, findings show that for pupils with SEND:

- Inclusive classrooms had a marginally positive effect on attainment and social outcomes for pupils with SEND (Baker et al., 1994; Lindsay, 2007). Ruijs and Peetsma's (2009) review also found positive effects of inclusion on the academic outcomes for pupils with SEND, but more mixed results on social outcomes.

- Inclusive classrooms showed an improvement in the academic and social outcomes for pupils with SEND, when compared to pupils accessing specialist settings or less inclusive environments (Dyssegaard & Larsen, 2013; Oh-Young & Filler, 2015; EASNIE, 2018).

- Inclusive classrooms provided greater opportunities to prepare pupils with SEND for adulthood including independent living, enrolment in further education, employment, and financial independence (EASNIE, 2018).

Nevertheless, Salend and Garrick Duhaney's (1999) found more varied findings on the academic and social outcomes of pupils with SEND in mainstream settings. However, their results show that less positive findings were generally found in less inclusive settings, that did not effectively differentiate teaching and instruction to meet the needs of pupils with SEND. It could be argued that this provides further evidence for the value of inclusive classrooms with high-quality instructional practice (Hehir et al., 2016; Katz & Mirenda, 2002). Additionally, Ofsted (2006) found mainstream classrooms with resourced provisions were more effective for the academic and social outcomes of pupils with SEND than segregated classroom environments such as specialist or alternative provision.

In their review of 280 studies, Hehir et al (2016) reported evidence that inclusive classrooms can produce short and long-term benefits for pupils with SEND. They found positive effects were more common when teachers had skills to adapt the curriculum and held positive attitudes toward inclusion. Furthermore, individual research studies show further long-term positive effects for pupils with SEND (Freeman & Alkin, 2000; Hehir et al., 2016; Szumski et al., 2017; Wagner et al., 2005), with inclusive classrooms increasing the likelihood of pupils with SEND earning vocational or academic credentials.

Secondly, findings show that for pupils without SEND:

- Inclusive classrooms did not have any adverse effects on the attainment of pupils without SEND (Demeris et al., 2007; Kalambouka et al., 2007; Ruijs & Peetsma, 2009; Salend & Garrick Duhaney, 1999; Sermier Dessemontet & Bless, 2013). In fact, Szumski et al (2017) and Peltier (1997) found inclusive classrooms had a marginally positive impact on the academic outcomes of pupils without SEND.

- Inclusive classrooms had an overall positive effect on the social outcomes of pupils without SEND (Hehir, 2012; Kalambouka et al., 2007; Nakken & Pijl, 2002; Ruijs & Peetsma, 2009).

- Inclusive classrooms had a positive impact on pupils without SEND in terms of increased acceptance, caring friendships, growth in self-concept, reduced fear of human difference, and tolerance of individual differences (Salend & Garrick Duhaney, 1999; Staub & Peck, 1994).

Kart and Kart (2021) summarise that previous reviews provide evidence that pupils without SEND mostly benefit from learning in inclusive classrooms. Their findings show neutral or slightly positive effects of inclusion on the academic and social outcomes of pupils with SEND. This is supported by Hehir et al (2016) who conclude that including pupils with SEND in mainstream classrooms does not negatively impact pupils without SEND and may provide some academic and social benefits. Indeed, large scale studies provide further evidence to suggest that inclusive classrooms do not appear to have a negative effect on the academic achievement of primary pupils without SEND (Cole et al., 2004; Demeris et al., 2007; Huber et al., 2001; Ruijs et al., 2010; Sermier Dessemontet & Bless, 2013), and show that inclusive classrooms supported pupils to develop friendships and more positive attitudes towards pupils with SEND (Bunch & Valeo, 2004; Georgiadi et al., 2012).

However, it also indicated through research that inclusive classrooms may not be favourable for all pupils with SEND. For example, Edwards et al (2019) found inclusive classrooms had a negative impact on peer acceptance and attitudes toward pupils with SEND. Additionally, the social status of pupils with SEND was generally found to be lower than pupils without SEND (Frederickson & Furnham, 2004; Gresham & MacMillan, 1997; Nowicki, 2003). Research suggests that TAs may form a social barrier between pupils with and without SEND in inclusive classrooms (Idol, 2006; Oh-Young & Filler, 2015; Woodgate et al., 2020; Worth, 2013). Thus, it is possible that this difference in social status could make mainstream classroom environments more challenging for pupils with SEND and highlights the importance of educational settings actively celebrating the diversity of all pupils.

Overall research indicated no direct negative impacts on the social or academic outcomes of pupils with and without SEND (Hehir et al., 2016; Kart & Kart, 2021). There is some evidence to suggest that inclusive classrooms raise the achievement of all pupils (EASNIE, 2018; Szumski et al., 2017). This is also supported by qualitative data drawn from interviews with teachers, parents, and headteachers, which demonstrated that inclusive practices were perceived as beneficial for all pupils (Burstein et al., 2004). Frederickson and Cline (2015) conclude that when inclusive education is embraced, there are net benefits for pupils with SEND without detrimental effects on other pupils' progress. In addition, Lacruz-Pérez et al (2021, p. 13) conclude that the construction of inclusive environments "is *positive* for all those who live in the school and is a *must* for pupils with SEND." The researcher aligns with inclusive enthusiasts (Brown, 2018; Frater, 2021; Thomas & Vaughan, 2004) who argue that the lack of

conclusive findings of any disadvantageous effects for pupils with or without SEND in inclusive classrooms, further strengthens the need to restructure our education system to be more supportive and committed to inclusion from a social justice and human rights perspective.

2.4 What Factors Facilitate the Inclusion of Pupils with SEND?

Research indicates that the physical placement of pupils with SEND in mainstream schools is not enough to ensure effective inclusion (Brown, 2018; Kalambouka et al., 2007; Odom et al., 2011). There is not one single factor that facilitates the inclusion of pupils with SEND, but rather a commitment from all system levels surrounding a pupil with SEND (Odom et al., 2004). Importantly, those promoting inclusion emphasise the need to restructure the education system, so that schools and classrooms are better placed to meet the needs of *all* children (Cross & Walker-Knight, 1997; Frederickson & Cline, 2015; McLeskey & Waldron, 2011).

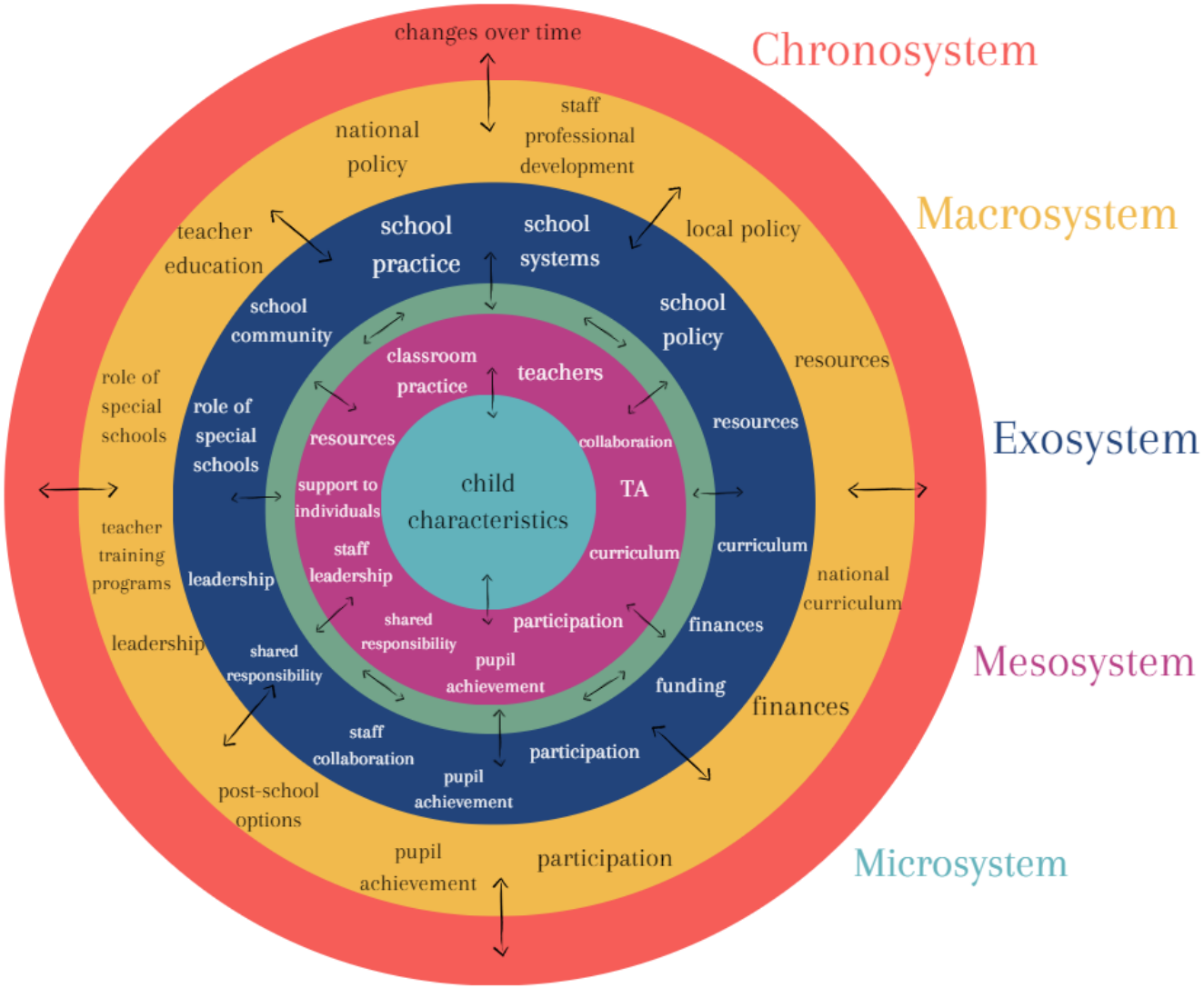
Ecological systems theory (Bronfenbrenner & Morris, 2006) can serve as a conceptual framework for organising the many factors that have been found to facilitate the inclusion of pupils with SEND in mainstream classrooms and is visually portrayed in Figure 3 (Cline et al., 2015; Loreman et al., 2014; Odom et al., 2004). This section will discuss facilitating factors for the inclusion of pupils with SEND on the following ecological levels:

- Macrosystem: local and national context
- Mesosystem: schools and the contexts in which they operate
- Microsystem: individuals and classrooms

To support the research question, a greater focus will be placed on factors that support the inclusion of pupils with SEND on a microsystem level.

Figure 3

A figure to show factors that impact inclusive education from an ecological perspective.



Note: Influenced by Bronfenbrenner and Morris (2006) and Loreman et al (2014).

2.4.1 Macrosystem: National and Local Context

Research accentuates the importance of wider macro-system factors such as national and local leaders, system-level infrastructure, and legislation in facilitating inclusion (Dimitrellou et al., 2020; Kalambouka et al., 2007; Schuelka, 2018; UNESCO, 2017). The beliefs and attitudes held by all members of the educational community play an important role in facilitating inclusive education (Dyson et al., 2004; Hehir et al., 2016; Loreman et al., 2014). This highlights the importance of developing a shared commitment to inclusive values across the community. To support a societal change from the status quo of 'segregation,' Hehir et al (2016) call for leaders to advocate for inclusive education. In their review of literature, Dyson et al (2004) highlight the importance of the national context and how policy needs to represent inclusive principles to ensure that it does not undermine educator's efforts. However, within the UK, Ainscow et al (2006) propose that inclusion will not be achieved by any radical reform in educational policy but by expanding upon the inclusive elements of current policy and supporting teachers to develop and implement inclusion. It is important for each national and local context to address their specific barriers to inclusion and what resources can be mobilised to address those barriers (Booth & Ainscow, 2002; Collins, 2012; Schuelka, 2018; UNESCO, 2017).

2.4.2 Mesosystem: School Context

Research emphasises the importance of a whole-school approach to inclusive education, which fosters a welcoming, collaborative school environment with a clear vision to support the learning of all pupils in the same educational space (Ainscow & Sandill, 2010; Ferguson, 2008; Florian & Black-Hawkins, 2011; Florian & Spratt, 2013; Lyons et al., 2016). On a school level, there is an emphasis on collaboration between members of the educational community and a shared commitment to inclusive values (Dyson et al., 2004; Pantić & Florian, 2015).

Many school-wide studies have investigated the structures and supports which facilitate inclusion (Ainscow et al., 2006; Howery et al., 2013; Idol, 2006; McLeskey et al., 2014). Findings indicate that highly inclusive educational settings tend to manage inclusion in similar ways (Dyson et al., 2004; Lyons et al., 2016; McLeskey & Waldron, 2011). Key qualities found in effective inclusive schools is summarised in Table 1 (Hehir, 2012; Hoppey & McLeskey, 2014; Lyons et al., 2016; Manset & Semmel, 1997; McLeskey et al., 2014).

Table 1

A table to summarise school-based facilitating factors for inclusive education.

Theme	*Facilitating Factors for Inclusive Education*
Vision	• a clear unifying vision focused on meeting the needs of all pupils. • a commitment to inclusion (with simultaneous high expectations for all pupils) • a school-wide culture and goal toward inclusion - all pupils are valued and educated together. • a problem-solving approach to support a diverse range of pupils (and embraces the complexity of this task).
Collaboration	• collaborative team approach - with support, commitment, and responsibility throughout the school community (administration, teachers, staff, parents, and pupils). • staff are collectively accountable for positively impacting pupil achievement. • engagement of families in decisions about education.
Leadership	• senior leadership commitment to inclusive values. • a supportive leadership team that includes teachers in shared decision making. • immersing teachers in learner-centred professional development opportunities.
Teaching	• a very efficient but flexible curriculum (with incorporated modifications to support all pupils). • high-quality teaching and instruction that meets the needs of all pupils (based on evidence-based practice). • offering a variety of tasks so pupils can demonstrate their learning in a variety of ways.
Resources	• flexible and efficient use of resources (including human resources) to meet pupil's needs. • collaborative planning time is regularly available for teachers. • comprehensive supports for pupils and staff.
Data	• frequent testing and assessment to inform future teaching & learning. • Data is used to inform decisions and guide teaching.

2.4.3 Microsystem: Classroom Context

Teachers are widely recognised as the key implementors of inclusive pedagogy (Booth et al., 2000; Peček et al., 2008; Schuelka, 2018). "*In all countries, teachers are the most costly and, potentially, the most powerful resource in the education system"* (UNESCO, 2017, p. 36). Whilst there is no formal guidance within the UK on how teachers should implement inclusive classrooms (Crocker, 2023; Frederickson & Cline, 2015), the UN provides eight indicators that can support teachers to review their own inclusive pedagogy (UNESCO, 2016). These are outlined in Table 2 and include:

Table 2
A table to show United Nations inclusive classroom guidelines for teachers.

1	Teaching is planned with all students in mind
2	Lessons encourage the participation of all students
3	Students are actively involved in their own learning
4	Students are encouraged to support one another's learning
5	Support is provided when students experience difficulties
6	Classroom discipline is based on mutual respect
7	Students feel that they have somebody to speak to when they are worried or upset
8	Assessment contributes to the achievement of all students

Note: guidelines taken from (UNESCO, 2016, p. 109)

Research shows that teachers have a substantial impact on children's learning and are the most significant in-school factor influencing their achievement (Hattie, 2009; Hehir et al., 2016; OECD, 2005). It is emphasised how knowing the child and building supportive pupil-teacher relationships is a key facilitating factor to inclusion (Coates et al., 2020; den Brok et al., 2010; Morgan et al., 2023; Ofsted, 2021). International research outlines several recommendations for school educators (such as teachers and teaching assistants) to promote the inclusion of all pupils.

Firstly, school educators are encouraged to shift their focus away from individual pupil needs to that which benefits and values all pupils in the community of the classroom (Florian & Black-Hawkins, 2011; Losberg & Zwozdiak-Myers, 2021; Lyons et al., 2016). This can be achieved by extending the learning

opportunities that would ordinarily be available for pupils (Florian & Black-Hawkins, 2011), with teacher's placing a greater emphasis on what is to be taught and how, rather than who is to learn it (Losberg & Zwozdiak-Myers, 2021, p. 4).

Secondly, school educators are encouraged to be open minded about each pupil's potential to learn and ensure that a pupil's academic output is not pre-determined by their own judgment (Brennan et al., 2021). This highlights the importance of focusing on pupil strengths and encouraging pupil choice and responsibility for their own learning (Florian & Black-Hawkins, 2011; Losberg & Zwozdiak-Myers, 2021). For example, teachers may use classroom techniques such as providing multiple means of representation, action and expression, engagement (Universal Design for Learning, 2014).

Thirdly, school educators are encouraged to broaden their perspectives from 'within-child' factors and focus on what can be changed in the educational environment to support the learning of all pupils (Ferguson, 2008). This highlights the importance of viewing barriers to learning as an opportunity for professional development, rather than a 'within-child problem' (Florian & Black-Hawkins, 2011) and reflecting on the interaction between the pupil and their learning environment (Ferguson, 2008).

Finally, school educators are encouraged to work collaboratively with other members of staff, parents, and professionals to support the inclusion of all pupils (Ferguson, 2008; Losberg & Zwozdiak-Myers, 2021). This highlights the importance of creating a school environment where ideas can be shared and built upon (Brennan et al., 2021).

2.4.4 Teacher Views and Attitudes

Research highlights that teacher views and attitudes are important facilitating factors for inclusion (Avramidis & Norwich, 2002; Blecker & Boakes, 2010; Davis & Florian, 2004; Dyson et al., 2004; Norwich, 1994). Many argue that effective inclusion is dependent on the extent to which teachers believe in inclusion and feel confident and prepared to facilitate inclusive classroms (Laranjeira et al., 2023). Additionally, Schuelka (2018, p. 8) argues that teachers often feel that inclusion is something that are *"told to do"* but without much support, it can become a *"top-down burden rather than a*

collaborative process." This stresses the importance of wider school factors on teacher's views and attitudes toward inclusion.

Several international systematic literature reviews have summarised the research investigating the views of teachers in relation to inclusive education (Avramidis & Norwich, 2002; de Boer et al., 2011; Lacruz-Pérez et al., 2021; Lautenbach & Heyder, 2019; Salend & Garrick Duhaney, 1999). Overall, findings appear to show that teachers hold neutral attitudes toward inclusive education. Findings also indicate that teacher attitudes are influenced by three key variables:

1. *The type of SEND*

   Teacher attitudes appear to be more positive towards pupils with physical or sensory needs than pupils with cognition and learning or Social Emotional and Mental Health needs (Avramidis & Norwich, 2002; de Boer et al, 2011). Research also identifies teacher concerns toward the behaviour exhibited by pupils with specific types of SEND such as autism and ADHD (Roberts & Simpson, 2016; Toye et al., 2019).

2. *Teacher characteristics*

   Positive teacher attitudes appear related to prior experience and SEND training. Additionally, there are mixed findings on age and years of experience with openness to inclusive education (Avramidis & Norwich, 2002; de Boer et al, 2011).

3. *The educational environment*

   Positive teacher attitudes are related to resources and management support. Additionally, the level of difficulty of the academic content (Avramidis & Norwich, 2002; de Boer et al, 2011).

Within the UK, research indicates that overall teachers hold positive views toward inclusion (Rose, 2001). The findings show that whilst primary teachers wanted to facilitate the inclusion of pupils with SEND in their classrooms, they also felt they required further: support, resources, time, and training. These findings appear to be consistent with other inclusion research, with many studies finding teacher's attribute their hesitation toward inclusive education to lack of training (Blackorby et al., 2004; Woolfson & Brady, 2009). Additionally, research suggests that teachers who receive training are more likely to have positive attitudes towards the inclusion of pupils with SEND (Chiner & Cardona, 2013; Sharma et al., 2008).

2.5 Narrative Literature Review Summary

The narrative review provides a contextual background and rationale for the present study: *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND.*

Firstly, inclusion is a valuable area of inquiry, which is complex, socially-contested and requires further investigation. It has been highlighted how inclusion is a human right, social-justice concern and aligns with government agenda. However, whilst inclusion is an expectation for all mainstream schools across the UK, there is not yet an agreed definition or guidance on how practitioners should implement this (Brown, 2018; Crocker, 2023; Frederickson & Cline, 2015). Moreover, there are concerns that the SEND system has shifted away from inclusive practice, and not enough is being done to promote it (House of Commons Education Committee, 2019, 2020).

Secondly, teachers are widely recognised as the key implementers of inclusion, with research identifying teacher views and attitudes as an important facilitating factor for inclusion (Blecker & Boakes, 2010; Laranjeira et al., 2023; Peček et al., 2008; Schuelka, 2018). Whilst research identifies several factors that appear to facilitate inclusion on a national, local authority, school, and classroom level, there appears to be a lack of clarity surrounding what helps primary school teachers to facilitate inclusion in mainstream classrooms in the UK. Additionally, the literature review highlighted that very few studies have investigated the views of primary school teachers at the beginning of their career and was a key focus for the systematic literature review.

2.6 Systematic Literature Review

Systematic literature reviews enable researchers to uncover and analyse what is currently known in a field of investigation in relation to their specific research question (Newman & Gough, 2019). This systematic literature review aimed to investigate: *what is currently known about the views of primary school teachers at the beginning of their career in relation to inclusive education?* The rationale for this review question was threefold: research highlights the importance of teacher views toward inclusion, this population group appeared to be underrepresented in inclusion research, to inform the present study's research question.

The researcher aimed to ensure that the series of steps taken in this review were clearly documented, explained, and justified to ensure objectivity and rigor in the systematic process (PRISMA, n.d.) guidelines. A significant component of this process includes the quality appraisal of chosen research to ensure a meaningful synthesis of the research and findings (Gough, 2007; Pawson et al, 2003).

2.6.1 Search Criteria

Search criteria were selected for this review to ensure that the research selected and discussed aligned with the research question in terms of participants (primary teachers at the beginning of their career), research focus (views on the inclusion of pupils with SEND) and setting (English mainstream schools). As education systems vary across countries, the search criteria were limited to England. The researcher ensured that a variety of synonyms were used to represent the target population group including:

- 'Early Career Teacher' (ECT), the current term used to describe teachers in their first and second year of teaching (DfE, 2022).
- 'Newly Qualified Teacher' (NQT), the previous term used to describe teachers in their first year of teaching (before September 2021).
- 'Recently Qualified Teacher' (RQT), the previous term used to describe teachers in their second year of teaching (before September 2021).

As terms vary in research, the term ECT will be used throughout this section. This is because ECT is the current term used to describe teachers at the beginning of their career (first and second year of teaching) and will ensure a level of consistency when reporting findings from a range of studies.

Due to the limited number of studies yielded in initial searches, the geographical location criteria were widened to include research completed in the UK. Additionally, the participant inclusion criteria were broadened to include research that investigated primary and secondary ECT views together. Research that solely investigated secondary ECT views were excluded. To ensure consistency and methodological quality of the research, only peer-reviewed studies were considered for this review. Finally, the researcher included qualitative, quantitative, and mixed method data due to the limited number of studies yielded. A summary of the inclusion and exclusion criteria can be viewed in Table 3.

Table 3

A table to outline the inclusion and exclusion criteria applied to the systematic literature review.

	Inclusion	***Exclusion***
Article Type	Peer-reviewed articles	Books, Book Chapters, Conferences, Dissertation, Descriptive Article
Publication	2003 – 2023 (last 20 years)	Before 2003
Geographical Location	UK Mainstream Primary Schools	Studies outside of UK (e.g., Australia, USA, Europe) Special schools
Participants	• Early Career Teachers • Newly Qualified Teachers • Recently Qualified Teachers • Participant sample must include primary teachers in their first few years of teaching. • Participant samples that include both primary and secondary ECTs included.	• Research that investigated other educational professionals that were not ECTs (e.g., SENCo, experienced Teachers, Teaching Assistants, Teacher Trainees) were excluded. • Studies which solely investigated secondary ECTs were excluded.
Research Focus	Primary focus of the study is to explore ECT views on Inclusion / Inclusive Education of pupils with SEND in mainstream schools	Primary focus is not on exploring the views of ECTs. OR Primary focus is not concerning Inclusion or Inclusive Education in mainstream schools. OR The research explored inclusion in specific subjects (e.g., maths, science) OR The research explored specific areas of SEND (e.g., autism, ADHD)
Data	Studies must explore ECT views in relation to the inclusion of pupils with SEND (quantitative, qualitative, or mixed-method data)	Studies that do not explore ECT views in relation to the inclusion of pupils with SEND (e.g., the relationship between inclusive education and dialogue)

2.6.2 Search Strategy

Following the identification of inclusion and exclusion criteria, a search strategy was created to guide database searches. This process is outlined in Appendix 2-3 and visually displayed in Figure 4. Research studies were searched for on the 12th of July 2023 via three electronic databases (SCOPUS, PsychINFO, ERIC) accessed through University of Nottingham's eLibrary NuSearch. These databases were selected due to their scope of research journals. The following search terms were used to reflect the participant sample group and research focus:

("Newly Qualified Teacher" OR "Recently Qualified Teacher" OR "Early Career Teacher")

AND

(Inclu OR Inclusion OR Inclusive Education OR Inclusive Classroom)

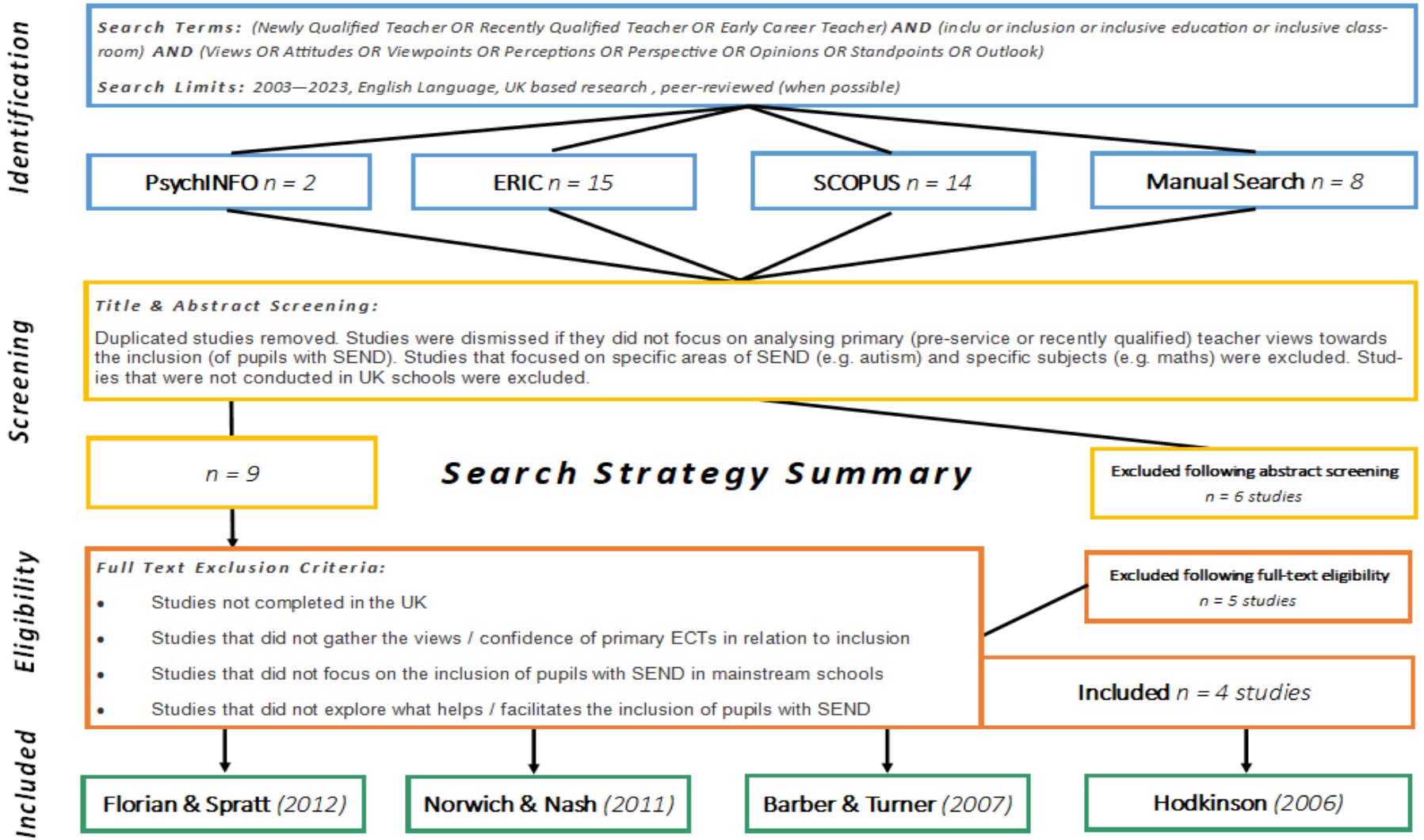
AND

(Views OR Viewpoints OR Attitudes OR Perceptions OR Perspective OR Opinions OR Standpoints OR Outlook)

Synonyms used to describe ECTs, inclusion and views were taken into consideration. Search limits were applied to ensure contemporary revelavnce and were limited to 2003 – 2023, peer-reviewed articles, written in English, and conducted in the UK. The search terms used in three databases, initially yielded 39 research studies. The researcher also idented a further 8 records through manual searching on the University of Nottingham's eLibrary NuSearch. Each of these studies had the inclusion and exclusion criteria applied to them. Following PRISMA (n.d.) guidelines, a summary of the search process and identification of studies included can be seen in Figure 4 and Appendix 2-3 to ensure research transparency.

Figure 4

A figure to summarise the search strategy used for the present systematic literature review.



Firstly, following **title screening** and removal of duplicates, the 31 studies initially identified were reduced to 15. Studies were excluded if they were not:

- completed in the UK (e.g., Australia)
- completed with primary ECTS (e.g., experienced teachers or teacher trainees)
- investigating the inclusion of pupils with SEND (e.g., health)
- a peer-reviewed article (e.g., books)

Secondly, during the **abstract screening** process, 15 studies were reduced to nine. The researcher discovered that many studies were completed in non-UK countries and did not meet the geographical inclusion criteria (e.g., USA). The researcher also discovered that many studies were completed with secondary ECTs, teacher trainees, or experienced teachers and thus did not meet the participant inclusion criteria.

Thirdly, following the **full-text eligibility process**, nine studies were reduced to four. Two papers were excluded as they did not meet the research focus criteria. For example, their research focus was on specific strategies such as 'cooperative learning' or 'dialogue' and did not explore what facilitated the inclusion of pupils with SEND (Hornby, 2009; Kershner, 2016). Two papers were excluded as they did not meet the participant inclusion criteria. (Kendall, 2019; Vickerman & Coates, 2009). Kendall (2019) investigated the views of a mixed participant sample including SENCo, experienced teachers, and an ECT. Additionally, Vickerman & Coates (2009) investigated the views of Secondary PE Teacher trainees and ECTs. A further paper was excluded as it did not meet the geographical inclusion criteria and included participants from the UK and Germany in the same study (Black-Hawkins & Amrhein, 2014).

2.6.3 Data Summary & Extraction

The systematic review search process identified four studies for eligibility. Whilst taking a mixed-method approach, this review enabled the identification of quantitative and qualitative data related to the review question. One study provided qualitative data (Florian & Spratt, 2013), another provided quantitative data (Norwich & Nash, 2011) and a further two provided both quantitative and qualitative data (Barber & Turner, 2007; Hodkinson, 2006).

Data extracted from the studies can be viewed in Table 4 and included: participant information, geographical information (where participants were based), research questions, data collection methods, data analysis methods and key findings relevant to the review question: *what is currently known about the views of primary school teachers at the beginning of their career in relation to inclusive education?* Based on the information yielded by the eligible studies, two further sub-questions were devised:

1. *What is known about the self-efficacy / confidence of primary school teachers at the beginning of their career in relation to inclusion?*
2. *What is known about what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND?*

Table 4

A table to summarise key information from the four eligible studies.

Study	*Participants*	*Research Qu*	*Method & Data Analysis*	*Summary of Key Findings*
Barber & Turner (2007). **Mixed Methodology**	**N = 60** **Primary ECTs** in the UK (Southeast / London) 50% response rate	Does confidence (in identifying and teaching pupils with SEND) increase during the first year of teaching? If confidence increases, what contributes to this? What qualities do they bring to inclusion?	**Method: Questionnaire** in 3 parts (13 questions in total which produced qual and quant data) 1. *Your Training* (6 Qu) Included 5-point scale questions about preparedness to identify / teach pupils with SEND: (highly effective) (effective) (acceptable) (poor) (very poor) 2. *You as a teacher* (5 Qu) Included 3-point scale: confidence planning work for pupils with specific areas of SEND. (low) (medium) (high) 3. *About inclusion* (2 Qu) Included 3-point scale: confidence for the inclusion of pupils with SEND. (very low) (low) (medium) (high) (very high) **Data Analysis** • Quant data (descriptive statistics) • Qual data (analysed using grounded theory)	**Confidence (in their ability to include of pupils with SEND)** • 56% rated confidences as neither high nor low • 25% rated confidence as moderately high • 6% rated as moderately low. • No ECT rated as 'very high or 'very low'. • No trend detected on type of support ECT received and confidence. **Facilitating Factors for Inclusion** • School-based Induction • Own research and reading • SENCo support / mentor support / advice and support from EP • Training ***2 areas considered most helpful: day to day experience with pupils in class AND informal advice form experienced colleagues*** (this combination most often reported) **Teacher Qualities they bring to Inclusion:** • Enthusiasm, flexibility, patience, empathy, humour, • Beliefs about the rights of the child • Up-to-date knowledge about SEND, new ideas and theories, being open to new ideas. • Celebrating pupil's strengths • Skills in differentiation • Previous experience • Good support systems in the school for teacher and child **Three Themes Identified:** 1. Knowledge and skills 2. Attitudes and belief systems 3. School systems **Conclusions** - participants ability to facilitate inclusion linked (in part) to their level of confidence to include pupils. - collaborative working environments support primary teachers to work together / learn from each other / meet the needs of pupils with SEND.

Study	*Participants*	*Research Qu*	*Method & Data Analysis*	*Summary of Key Findings*
Florian & Spratt (2013) **Qualitative Data**	**N = 7 ECTs** (4 Primary ECTs and 3 Secondary ECTs) in the UK (Scotland)	How can inclusive principles be used in learning and teaching? And applied in practice?	**Method: Classroom Observation** and **Semi-structured interview** (45min) guided by overlapping key themes (analytical framework) **Data Analysis** Qualitative data tagged using codes in the framework. Database (using software NVivo 7) were created with multiple and diverse examples of how each theme can inform the choices made by teachers.	This study produced rich qualitative data whereby the knowledge and beliefs (interview data) were linked to actions (observation data) and described through a **narrative case study example.** **Self-efficacy / Confidence (in their ability to include of pupils with SEND)** • The casework example describes an ECT who was confident in her ability to include all pupils and was determined to share and discuss her views on inclusion with other members of staff. • The ECT was committed to inclusion and had understood the harmful effects of ability labelling. **Facilitating Factors for Inclusion** • Believing all children will make progress, learn, and achieve. • Teaching practices which include all children. • Extending what is ordinarily available for all learners. • Differentiation achieved through choice of activity for everyone. • Teaching focus on what children can do rather than what they cannot. • Grouping children to support everybody's learning. • Organising the classroom in a more open-ended approach to learning (not based on ability). • Viewing difficulty in learning as a professional dilemma for teacher rather than a deficit of the child. • Co-agency between teacher and pupil. • Actively seeking pupil's views. • Commitment to each child. **Conclusions** - The analytical framework provides a helpful tool for exploring inclusive pedagogy in action (for other researchers and teachers wanting to evaluate their own practice). - **Inclusive practice values the learning of all children.**

Study	*Participants*	*Research Qu*	*Method & Data Analysis*	*Summary of Key Findings*
Hodkinson (2006) **Mixed Methodology**	**N = 10 Primary ECTs** in the UK (North-West of England) (14% response rate) **Follow-up Study**	Research Questions 1. How do participants **define inclusive** education? 2. Do participants feel their **views on inclusion** have **changed?** 3. Do participants feel that **all children can be educated within mainstream** settings? 4. What do participants believe schools should do to promote **inclusion?** 5. What **training (on inclusion** have they received during this year?	**Method: Questionnaire** (posted) - Questions that addressed research questions - Open-ended questions (enabling further thoughts and feelings related to inclusion to be expressed) **Data Analysis** Grounded theory and statistical analysis	**Self-efficacy / Confidence (in their ability to include of pupils with SEND)** • ECT reservations about inclusive education are grounded in the **lack of expertise** and **time to facilitate** inclusion. • When participants were teacher trainees 100% believed inclusion is 'education for all' • As ECTs 40% believed inclusion is about 'education for all' (definition of inclusion narrowed) *Suggestions for change in perspective for participants in a relatively short time* • Lack of training / lack of professional development activities • The schools they work in may not view inclusion as a high priority / not supporting them to feel more confident in their ability to deliver inclusive education. • Lack of support for pupils with SEND within the classroom → leads to increased stress for ECTs (and feel unprepared to teach) *participants didn't want to abandon inclusion:* • 60% believed there were benefits of inclusion. • despite difficulties / negative experiences of teaching inclusively – many participants wanted to give inclusion a go but should only be considered if in the best interests of the individual pupil. **Facilitating Factors for Inclusion** • Adapted teaching style to accommodate pupil's learning style. • Effective school policy related to inclusion. • Positive effects of diversity were emphasised in their classrooms. • Additional training on inclusion. • Provision of additional resources. • Welcoming and supportive atmosphere. • Support from outside agencies. • Effective employment of support staff. • Careful planning of lessons. **Conclusions** • ECT's conceptualisation of inclusive education is mediated by prolonged classroom exposure to harsh realities of educational practice. • A teacher's first year of employment can negatively affect their view of inclusion.

Study	*Participants*	*Research Qu*	*Method & Data Analysis*	*Summary of Key Findings*
Norwich & Nash (2011) **Quantitative Data**	**N = 47 ECTs** (Primary ECTs and Secondary ECTs) in the UK (Exeter) (25% response rate) **Follow-up Study**	How prepared are ECTs (trained via the PGCE program) to teach pupils with SEND?	**Method: Questionnaire** (online) - Closed / open-ended questions - Rate how well the PGCE program prepared them to teach several areas related to SEND. (very good) (good) (adequate) (poor) (No response) **Data Analysis:** Analysed quantitatively (SFSS statistical package) in terms of frequency of distributions and cross-tabulation.	**Self-efficacy / Confidence (in their ability to include of pupils with SEND)** • ECTs judged their preparation to work with pupils with SEND as 'good' or 'very good' at a much lower level (23%) than the other areas: planning teaching to achieve progression (55%), teaching learners of different abilities (47%), managing the work of others (40%) • ECTs judged their ability to work with pupils with SEND as adequate (55%) or poor (17%) **Facilitating Factors for Inclusion** • School placement (teacher training) support their learning about SEND (74%) • Professional studies (teacher training) support their learning about SEND (57%) • Direct class teaching (85%) • Classroom observation (79%) • School tutorials (53%) • Reading books, articles, web sites (47%) **What Might Help Facilitate Inclusion?** • More practical teaching input about SEND. • How to accommodate for pupils in their classes. • More work on differentiation. • How to work with support staff. • Explanation of SEND provision. • More time observing schools with a focus on SEND. • Visit to a special school. • More contact with SENCos. • More input from external professionals. **Conclusions** - Participants preparation to teach SEND rated lower than other areas. - Rationale to improve initial teacher training and continuing professional development in this aspect of education.

2.6.4 Quality Appraisal

The quality of evidence of eligible studies were appraised using Gough's (2007) weight of evidence model (Figure 5). This model uses three criteria (Weight of Evidence A, B and C) to evaluate the quality of research and provide an overall judgement (D rating). Based on this framework, the researcher considered coherence and integrity of the evidence (A), the relevance of the research design (B), and the relevance of the evidence to the research question (C). These judgements were then combined, giving each of the four studies an overall D rating that ranged from 'low (L) – medium (M) – high (H).' Guided by Gough's (2007) recommendations, the TAPUPAS model (Pawson et al., 2003) was used alongside the weight of evidence framework to provide further detail at each level. An overview of the quality appraisal process can be viewed in Appendix 4 and 5. The researcher will now briefly outline and appraise each of the four studies included in this systematic review. The researcher's overall judgement (weight of evidence D) for each paper can be viewed in Table 5.

Figure 5
A figure to show the Gough's (2007) weight of evidence considerations.

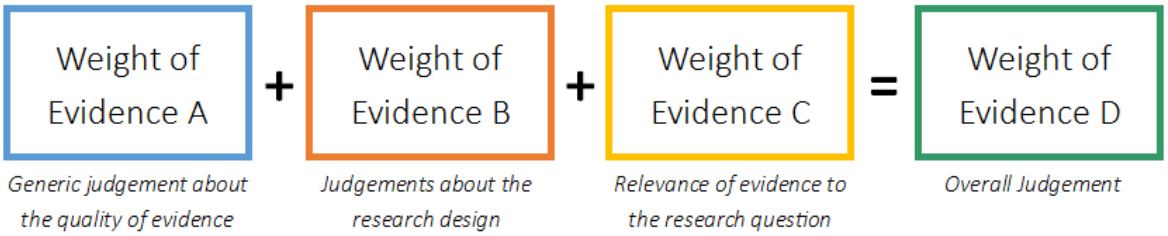


Table 5

A table to summarise the overall quality of eligible studies.

Research	*Overall Quality of Study (Gough, 2007)*
Barber & Turner (2007)	Weight of Evidence D = High - Appropriate participant sample (primary ECTs) - Sample size relatively large (N = 60) - Appropriate research focus (views on inclusion) - Research relatively recent (within the last 16 years) - Peer-reviewed journal - Clear research question and purpose - Literature review present - Some limitations of the study acknowledged. - Provides both quantitative and qualitative data. - Explicit reporting of results o Results report ECT confidence in relation to teaching pupils with SEND inclusively. o Results report ECTs views on facilitating factors for inclusion
Florian & Spratt (2012)	Weight of Evidence D = Medium - Mostly appropriate participant sample (primary and secondary ECTs) - Sample size relatively small (N = 7) - Appropriate research focus (views on inclusion) - Research relatively recent (within the last 11 years) - Peer-reviewed journal - Clear research question and purpose - Literature review present - Limitations of study acknowledged. - Provides rich qualitative data. - Results are discussed through a narrative case study example (of a primary ECT) o ECT self-efficacy in relation to inclusion open to interpretation / less explicit. o Facilitating factors for inclusion outlined in a detailed framework
Hodkinson (2006)	Weight of Evidence D = Medium - Appropriate participant sample (primary ECTs) - Sample size relatively small (N = 10) - Appropriate research focus (views on inclusion) - Research relatively recent (within the last 17 years) - Peer-reviewed journal - Clear research question and purpose - Literature review present - Limitations of study are not acknowledged. - Provides both quantitative and qualitative data. - Explicit reporting of results o ECT self-efficacy in relation to inclusion open to interpretation / less explicit. o Results report ECTs views on facilitating factors for inclusion
Norwich & Nash (2011)	Weight of Evidence D = Medium - Mostly appropriate participant sample (primary and secondary ECTs) - Sample size adequate (N = 47) - Appropriate research focus (views on inclusion) - Research relatively recent (within the last 12 years) - Peer-reviewed journal - Mostly relevant research question and purpose (specifically related to how the PGCE course prepared participants to teach pupils with SEND) - Literature review present - Limitations of study are not acknowledged. - Provides both quantitative data. - Explicit reporting of results o Results report ECT preparedness to teach pupils with SEND inclusively (self-efficacy) o Results report ECTs views on facilitating factors / suggested factors to support them to teach pupils with SEND inclusively (however many factors are specifically related to aspects of their PGCE course)

Barber & Turner (2007)

Barber and Turner (2007) combined quantitative and qualitative data in a **mixed-method design** involving 60 primary ECTs in England. Their study aimed to investigate whether teacher confidence in identifying and teaching pupils with SEND increases during their first year of teaching (quantitative data). They also aimed to investigate what factors were believed to support them to facilitate inclusion (qualitative data). Data was collected using questionnaires, which were posted to participants towards the end of their first year of teaching. The questionnaire was split into three sections and included questions about a) their training, b) them as a teacher c) their views on inclusion. This study provided an example of the questionnaire, where the specific details of each question can be viewed in full (Barber & Turner, 2007, p. 35).

Barber and Turner's (2007) study met the requirements of this systematic review question, as it investigated the views of primary ECTs in relation to the inclusion of pupils with SEND. This study was peer-reviewed and included a literature review (weight of evidence A). However, few limitations are acknowledged by the researchers with one note of caution given to the fact that all participants trained through traditional methods rather than 'on the job' teacher training routes such as 'Teach First.' The researcher acknowledges further limitations to this study, such as social desirability, as participants were being asked to review their confidence when they started their ECT year retrospectively. The overall weight of evidence rating was 'high' (see Table 5), due to the detail provided about the research design (weight of evidence B) and relevance to the review question (weight of evidence C).

Hodkinson (2006)

Hodkinson (2006) also combined quantitative and qualitative data in a **mixed-method design** involving 10 primary ECTs in England. Their study aimed to investigate ECT views in relation to inclusion, such as how they define inclusion and what factors they believed schools should implement to ensure inclusive education will be successful. Interestingly, this study followed-up the same group of participants one-year later and compared their view on inclusion as teacher trainees and as ECTs. Data for this study was collected using (posted) questionnaires, involving both closed and open-ended questions.

This study met the requirements of this systematic review question, as it investigated the views of primary ECTs in relation to the inclusion of pupils with SEND. This study was peer-reviewed and included a review of literature (weight of evidence A). However, this study does not specifically investigate ECT self-efficacy or confidence in their ability to include pupils with SEND and so therefore lacks some information required for the review question due to the research design (weight of evidence B and C). Additionally, this study does not acknowledge limitations to the data it presents. For these reasons, the overall weight of evidence rating D was 'medium' (see Table 5).

Florian & Spratt (2013)

Florian and Spratt's (2013) study involved seven ECTs in Scotland (UK), four participants were primary ECTs and three were secondary ECTs. Their study provided **qualitative data** and aimed to investigate how inclusive principles can be applied to teaching practice and developed a framework to investigate factors considered to facilitate the inclusion of pupils with SEND. This framework is detailed further in their study (Florian & Spratt, 2013, p. 127-129) and includes three key (overlapping) themes: understanding learning (p. 127), social justice (p, 128) and becoming an active professional (p. 129). Data for this study was collected using classroom observations at three points throughout the year and 45-minute semi-structured interviews. Data was analysed by tagging qualitative data obtained through observations and interviews with the codes in their analytical framework. The data is presented and described through a narrative case study example of a primary ECT.

This study met the requirements of this systematic review question, as it presents rich detail regarding the views and practice of a primary ECT in relation to the inclusion of pupils with SEND in her class. This study was peer-reviewed, includes a literature review, and acknowledged limitations to the study (weight of evidence A). However, due to the research design and data presentation, this study lacks some information required for the review question (weight of evidence B and C). For example, this study uses a casework example to present the results and does not outline the data obtained from the other six participants. The overall weight of evidence rating D was 'medium' (see Table 5).

Norwich & Nash (2011)

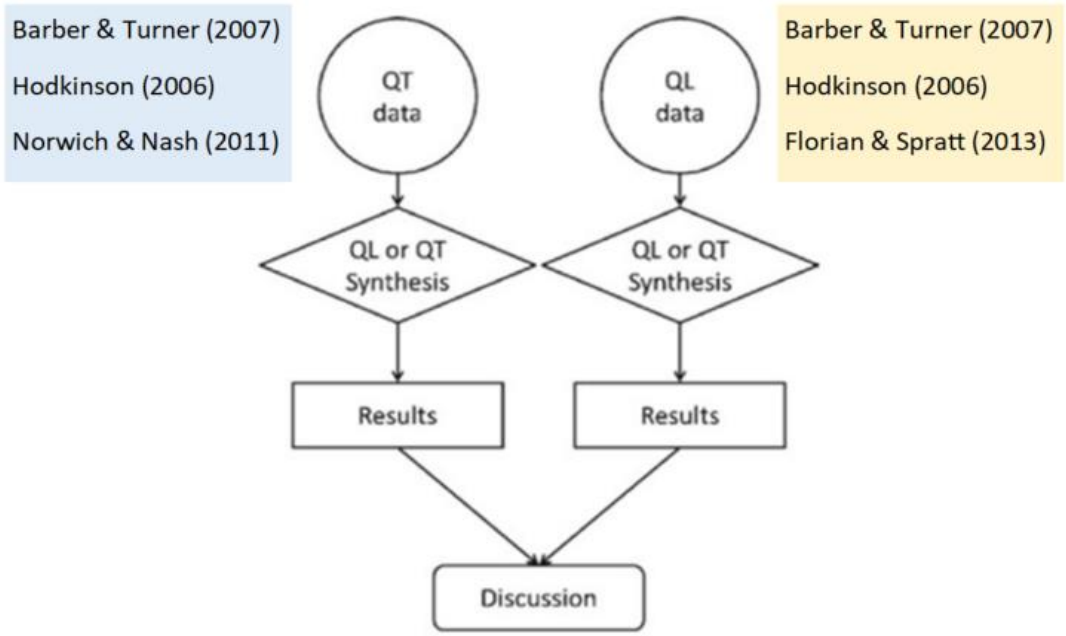
Norwich and Nash's (2011) study involved 47 primary and secondary ECTs in England (UK) and was a follow-up study from when participants were teacher trainees on the PGCE program in Exeter. Their study provided **quantitative data** and aimed to investigate how prepared ECTs felt to teach pupils with SEND inclusively. Data was collected through online questionnaires and analysed quantitatively in terms of distribution frequency and cross-tabulations.

This study met the requirements of this systematic review question, as it provides data regarding how prepared ECTs felt to work with pupils with SEND (self-efficacy) and what factors were believed to help them facilitate the inclusion of pupils with SEND. Norwich and Nash's (2011) study also uncovered several factors that may have further increased participant's preparedness to teach pupils inclusively. This study was peer-reviewed and includes a brief literature review (weight of evidence A). However, limitations to the study are not acknowledged, and an example of the questionnaire is not provided. It is likely that several questions relate to the PGCE program, as findings relate to specific areas of the course such as the 'SEN task' which is not relevant for the research question. Additionally, this study includes a high proportion of secondary ECTs (approximately 60%) and therefore is not entirely appropriate for the research question (weight of evidence B and C). The overall weight of evidence rating D was 'medium' (see Table 5).

2.6.5 Synthesis

The systematic review outlined in this paper took the form of a mixed-method synthesis, enabling the researcher to carry out a synthesis of both quantitative evidence (measures of ECT confidence in relation to inclusion) and qualitative evidence (factors believed to help ECTs facilitate the inclusion of pupils with SEND). Various approaches to synthesising mixed methodology studies were considered for this review. A parallel-results convergent synthesis design (see Figure 6) involves the individual analysis of quantitative and qualitative data separately (in parallel), before integrating the results in the discussion section (Hong et al., 2017; Noyes et al., 2019; Petticrew et al., 2013). This was reasoned to be the most appropriate form of synthesis for this systematic review, as it enabled the exploration of two complimentary sub-research questions (Hong et al., 2017). Additionally, the four papers included in this review used a variety of methods and data analysis, which could not easily be integrated through statistical pooling or meta-ethnography. The researcher convergently synthesised quantitative and qualitative data separately before integrating results in the discussion.

Figure 6
A figure to show the parallel-results convergent design.



Note: Adapted from Hong et al (2017, p. 9)

2.6.6 Quantitative Data Synthesis

Participants & Research Design

A total of 117 ECTs working in mainstream schools in the UK were included in the quantitative studies. All three studies gathered data through questionnaires to investigate ECT confidence in relation to the inclusion of pupils with SEND in their class. One study analysed data quantitatively in terms of distribution frequency and cross-tabulations (Norwich & Nash, 2011), one study coded data using descriptive statistics (Barber & Turner, 2007), and another used statistical analysis (Hodkinson, 2006). The quantitative studies provided information which relates to the researcher's research question: *What is known about ECT views in relation to inclusive education?* As each study had different outcome measures, a narrative summary was used to report the results of quantitative studies.

Quantitative Narrative Summary

Firstly, quantitative data from Barber and Turner's (2007) study was analysed using descriptive statistics and provides information related to the researcher's first sub-research question: *What is known about ECT self-efficacy in relation to the inclusion of pupils with SEND?* Their results indicate that ECT confidence (in their ability to include pupils with SEND) was neither high nor low, with most participants (56%) rating their confidence as 'acceptable'. Findings also showed that a quarter of participants (25%) rated their confidence as 'moderately high' and 6% rated their confidence as 'moderately low.'

Additionally, participants were asked to rate their confidence teaching a variety of specific areas of SEND at the beginning and end of their first year as a qualified teacher. Quantitative data shows that participant's confidence teaching pupils with SEND did not fall in any specific areas of SEND, with a statistically significant increase in confidence teaching pupils with a range of SEND over the course of their first year of teaching. However, no statistically significant trend was detected between ECT's level of confidence and the type of support they received.

Secondly, quantitative data from Norwich and Nash's (2011) study also provides information related to the researcher's first sub-research question: *What is known about ECT's self-efficacy in relation to the inclusion of pupils with SEND?* Their results show that ECT's judged their preparedness to work with pupils with SEND as 'good' / 'very good' at a much lower level than other areas:

- Preparation to work with pupils with SEND (23%)
- Planning teaching to achieve progression (55%)
- Teaching pupils with different ability (40%)
- Managing the work of others (40%)

Their results show that the majority of ECTs (55%) judged their ability to work with pupils with SEND as 'adequate' and a further 17% judged this area as 'poor.'

Furthermore, Norwich and Nash (2011) also provided quantitative data related to the researcher's second sub-research question: *What is known about what supports ECT's to facilitate the inclusion of pupils with SEND?* Their results indicated that ECTs found direct class teaching to be the most important facilitating factor:

- Direct class teaching (85%)
- Classroom observation (79%)
- School tutorials (53%)
- Reading books, articles, web sites (47%)

These results were further highlighted by the fact that ECTs found their practical school placement (74%) to be more supportive of their learning about SEND than their professional studies (57%). A summary of further suggestions highlighted by ECTs can be viewed in Table 6 (Norwich & Nash, 2011, p. 9).

Table 6

A table to display early career teacher suggestions regarding what helps them to facilitate inclusion.

Further work on differentiation	more about hands-on teaching of SEND	more time observing with a focus on SEND
how to work with TAs	explanation of provision for pupils with SEND in schools	visit to a special school
input from specialist teachers in SEND	how to write an IEP	more contact with SENCos whilst on placement
how to accommodate for pupils in their classes	more outside agencies that might be involved with a pupil with SEND	More training on areas of SEND (most likely to experience in the classroom)

Note: (Norwich & Nash, 2011)

Thirdly, quantitative data from Hodkinson's (2006) study was analysed using statistical analysis and indicates that ECT's definition of inclusion narrowed over the course of their first year of teaching. Their follow-up study shows contrasting results with all 10 participants (as teacher trainees) believing inclusion to be about 'education for all' and only 40% of participants (as ECTs) believing this to still be the case. Hodkinson's results show that ECTs varied greatly in terms of whether they believed that all mainstream schools should be inclusive. The results show that 30% of ECTs still believed there were benefits of inclusion, 10% believed there were benefits for some children (not all), 30% remained undecided on what the benefits to inclusion were, and a further 30% disagreed altogether with the notion that all mainstream schools should be inclusive.

Additionally, Hodkinson also provided quantitative data related to the researcher's second sub-research question: *what is known about what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND?* The factors considered by ECTs to ensure

successful inclusion can be viewed in Table 7. Interestingly, the most popular factor chosen by participants changed over the course of their first year of teaching.

- As ECTs, 60% of participants chose: *provision of additional resources.*
- As teacher trainees, 52% of participants chose: *teaching meets all needs / adaptation of teaching style.*

Table 7

A table to show how many early career teachers believed the following factors facilitated inclusion.

What supports ECT's to facilitate the inclusion of pupils with SEND?	Percentage of ECTs
Provision of additional resources	60%
Adapted teaching style to correspond with individual learning styles of pupils	30%
Training for teachers	30%
Positive effects of diversity were emphasised in their classrooms	30%
Welcoming and supportive atmosphere	20%
Support from outside agencies	20%
Effective employment of support staff	20%
Careful planning of lessons	20%
Everybody given equal opportunity	10%
Not just about pupils fitting in	10%

Note: (Hodkinson, 2006).

2.6.7 Qualitative Data Synthesis

Participants & Research Design

A total of 74 primary ECTs and three secondary ECTs working in mainstream schools in the UK, were included in the qualitative studies. Two studies included questionnaires (Hodkinson, 2006; Barber & Turner, 2007) and one study involved semi-structured interviews and classroom-based observations (Florian & Spratt, 2013). Two studies analysed the data using grounded theory, whilst another used a coded framework to tag qualitative data (Florian & Spratt, 2013).

The qualitative studies provided further detailed information related to the review question: *what is currently known about the views of primary school teachers at the beginning of their career in relation to inclusive education?* All three qualitative studies investigated what factors were considered by ECTs to help them facilitate the inclusion of pupils with SEND, providing information related to the researcher's sub research question (Hodkinson, 2006; Barber & Turner, 2007; Florian & Spratt, 2013). One study also investigated what individual qualities ECTs believed they could bring to inclusion (Barber & Turner, 2007), whilst another study investigated how inclusive education is applied in practice (Florian & Spratt, 2013). Due to the level of variance between each study, these findings will be presented through a narrative summary before integrating the data from the quantitative and qualitative synthesis in the discussion (Hong et al, 2017).

Narrative Summary

Firstly, qualitative data from Barber and Turner's (2007) study was analysed using comparative analysis and grounded theory – identifying several factors believed to be helpful for ECTs when teaching pupils with SEND inclusively. Factors included: training, school-based induction, their own reading and research, SENCo support, mentor support, and advice from professionals (such as an EP). Results highlighted that ECT's found two factors to be the most helpful combination:

- day-to-day experience with pupils in class
- informal advice from experienced colleagues

Further qualitative data identified specific qualities ECTs felt they could bring to inclusive education, which were summarised into three key themes: knowledge and skills, attitudes and belief systems and school systems. The researchers identified that some of these qualities were believed to have a positive

impact on their ability to include pupils with SEND, whilst others were viewed to have a negative impact. A summary of the identified qualities can be viewed in Table 8.

Table 8

A table to show primary early career teacher views on what qualities they can bring to inclusion.

Positive			
Flexibility	Enthusiasm	Patience	Empathy
Being open to new ideas	Beliefs about the rights of the child	Up-to-date knowledge and ideas about SEND	New ideas and theories
Celebrating pupil's strengths	Skills in differentiation	Previous experience	Good support systems for teacher and child
Negative			
Questioning inclusion for all	Integration versus inclusion	Changed beliefs and ideals over NQT year	School systems for teacher and child

Note: (Barber & Turner, 2007)

Secondly, qualitative data from Hodkinson (2006, p. 52-53) indicates that many participants wanted to '*give inclusion a go'* but felt that inclusive education should only be considered if it is in the best interest of the pupil and were cautious about the *'counter-effects'* inclusion may have on pupils without special educational provision. For example, Hodkinson (2006, p. 50) shares the views of one ECT *"…I used to believe that inclusive education was the favoured option. Experience has told me this can be very challenging for the class teacher and takes up a huge amount of time which should be dedicated to the whole class…*" This data suggests that an ECT's first year of teaching can lead to negative experiences of teaching inclusively.

Additionally, through the analysis of qualitative data, Hodkinson (2006, p. 50) suggests that ECT's reservations about inclusion may be grounded in the *'lack of expertise'* and *'time to facilitate'* inclusion – highlighting the importance of training, support, and time to plan for ECTs. This provides further qualitative data to support the many factors considered by ECT's to help facilitate the inclusion of pupils with SEND.

Finally, qualitative data from Florian and Spratt's (2013) study was coded using an analytical framework and presented through a narrative casework example of a primary ECT. Their framework demonstrates what is distinctive about the decision-making of teachers committed to inclusion. It also provides guidance to support teachers to evaluate their own inclusive pedagogy. Factors identified through observations and semi-structured interviews with a primary ECT are highlighted in Table 9. For example, making a range of tasks available for everybody, providing pupils with a choice of activity, and using formative assessment to help pupils understand activity would be most helpful for their own learning. This study provides rich qualitative information to support the researcher's sub-question: *what is known about what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND?* However, only a fragment of the data collected by Florian and Spratt is presented in their study. It is unclear whether the other examples of practice that were not identified in the narrative casework example were identified through observations and semi-structured interviews with other participants.

Further information regarding one primary ECTs views in relation to inclusion is provided in Florian and Spratt's (2013, p. 130-131) study:

- *"I hate the notion of fixed ability…"*
- *"I believe that people's ability is changeable…"*
- *"…he doesn't have to be in a separate class, he just has to believe he can do it."*

This data suggests that teachers believing in inclusive education is an important facilitating factor. The casework example described also shows how a teacher's commitment and encouragement to a child can have a positive impact on their own perceptions of their capacity to learn and how extending what is available for everybody, reinforces the notion that all pupils are valued members of the class. This study also provides evidence to show that inclusive classrooms can lead to positive effects for all children, as the measurable attainments for pupils in the primary ECT's class were *'better than expected'* at the end of the year (Florian & Spratt, 2013, p. 131).

Table 9

A table to outline Florian and Spratt's (2013) analytical framework of inclusive practice.

Theme	*Examples of Inclusive Practice*
Understanding Learning	A. Teaching practices which include all children (everybody). o Extending what is ordinarily available for all learners. o Differentiation achieved though choice of activity for everyone. o Grouping children to support everybody's learning. B. Rejection of ability grouping as main organisation of working groups. C. Use of language that expresses the value of all children. D. Providing opportunities for children to participate in co-construction of knowledge. E. Co-agency between teachers and learners to create new knowledge. F. Using formative assessment to support learning. G. Believing all children will make progress, learn, and achieve. o Focusing teaching and learning on what pupils can do rather than what they cannot.
Social Justice	A. Focusing on what is to be taught (and how) rather than who is to learn it. B. Providing opportunities for children to choose the level at which they engage with the work (co-agency in planning learning). C. See difficulties in learning as professional challenges for the teacher (locate problems in environment not in child). D. Strategic/reflective responses to support difficulties which children encounter in their learning. E. Quality of relationships between teacher and pupils (trust). F. Interest in the welfare of the 'whole child' not simply the acquisition of knowledge and skills (observation/interview). G. Flexible approach – driven by needs of learners rather than 'coverage' of material. o Their belief in themselves will only truly be evident from the philosophical stances they reveal during interview.
Becoming an Active Professional	A. Interplay between personal/professional stance and the stance of the school – creating spaces for inclusion wherever possible. o Seeking and trying out new ways of working to support the learning of all children. o Working with and through other adults in ways that respect the dignity of learners as full members of the community of the classroom. o Being committed to continuing professional development as a way of developing more inclusive practices. B. In partnerships formed with teachers or other adults who work alongside them in the classroom. C. Through discussions with other teachers/other professionals outside the classroom. D. Shifting the focus away from differences among learners to the learning of all children. o Seeking pupils' views. o Offering pupil choice.

Note: source Florian and Spratt (2013, p. 127-129). This framework was used to code their observations and semi-structured interviews with a primary ECT. The areas highlighted were discussed in their (2013) paper.

2.7 Discussion

This systematic literature review aimed to synthesise existing literature which explored the views of primary school teachers at the beginning of their career on inclusive education between 2003-2023. It was enlightening to discover very few studies had investigated this specific area of inquiry in the UK. The systematic review process identified four eligible studies. However, there was a level of variance in the research design, data analysis and participant sample. For example, two studies investigated the views of primary ECTs (Barber & Turner, 2007; Hodkinson, 2006), and two studies investigated the views of both primary and secondary ECTs (Norwich & Nash, 2011; Florian & Spratt, 2013). In line with parallel-results convergent synthesis designs (Hong et al, 2017; Noyes et al, 2019), the researcher will now integrate findings from the quantitative and qualitative synthesis and interpret the results related to the researcher's sub-research questions.

1. *What is known about the self-efficacy / confidence of primary school teachers at the beginning of their career in relation to inclusion?*

Two studies provided information related to this research question. Quantitative data suggests that ECT's self-efficacy to teach pupils with a range of SEND gradually increases over the course of their first year of teaching (Barber & Turner, 2007). Findings appear to be consistent, with most ECTs judging their confidence and preparedness to teaching pupils with SEND as 'adequate' (Barber & Turner, 2007; Norwich & Nash, 2011). Data also indicates that no ECT judged their confidence or preparedness as 'very poor' or 'very good' (Barber & Turner, 2007; Norwich & Nash, 2011). However, research indicates that ECT's believe their preparation to work with pupils with SEND is much lower than other areas of teaching (Norwich & Nash, 2011). This data is consistent with previous research (Rose, 2001; Schuelka, 2018) and highlights a clear rationale for the present study as many ECTs feel inclusion of pupils with SEND is an area of development and growth in their practice.

2. *What is known about what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND?*

All four studies provided information related to this research question – identifying numerous factors believed to help ECTs to facilitate the inclusion of pupils with SEND in mainstream schools. Factors presented by both quantitative and qualitative data have been integrated (Table 10) and will be included in the researcher's developing concourse for the present study (Appendix 6). The integrated

factors displayed in Table 10 show some overlap between the data presented by each study, as summarised by the following themes:

- Classroom experience
- Training
- Professional advice and support
- Independent research
- Support and Supervision
- School policies and systems

Quantitative data from Barber and Turner's (2007) study indicate that the most helpful combination of support for primary ECTs was day-to-day experience with pupils in class and informal advice from experienced colleagues. Quantitative data from Hodkinson (2006) study identifies 'provision of additional resources' as the most important factor for primary ECT participants, followed by adapted teaching style, training, and positive effects of diversity emphasised in the classroom.

Qualitative data from Barber and Turner (2007) identified several qualities which ECT's felt they could bring to inclusion. For example, flexibility, enthusiasm, being open to new ideas and up-to date knowledge about SEND. Additionally, Norwich and Nash (2011) identified several suggested factors that may help them to facilitate the inclusion of pupils with SEND (with many suggestions linking back to their PGCE training). Examples of ECTs suggestions include further information on differentiation, more contact with SENCo's on placement and visits to special schools. Finally, through semi-structured interviews and classroom observations, Florian and Spratt (2013) also identified several factors considered to facilitate the inclusion of pupils with SEND. Such as extending teaching practices which include all children, using formative assessment, quality of teacher-pupil relationships, offering pupil choice and viewing difficulties in learning as a professional challenge.

This data provides valuable information for the present Q study and contributed to the researcher's concourse (Appendix 6), which will be discussed in more detail in the methodology chapter. The information gathered through this systematic literature review have been integrated in Table 10. The findings appear to be consistent with previous research, which highlights how primary teachers feel they need more training, support, and resources to facilitate effective inclusion (Rose, 2001). It is hoped that by drawing upon the factors which help primary ECTs to facilitate the inclusion of pupils with SEND, they will feel more prepared and equipped to facilitate inclusive classrooms.

Table 10

A table to integrate factors considered to facilitate inclusion by four eligible studies.

What Factors Help Early Career Teachers to Facilitate Inclusion	*Source*
Training; Additional training on inclusion; more training on differentiation / areas of SEND (most likely to experience in the classroom).	(Barber & Turner, 2007; Hodkinson, 2006; Norwich & Nash, 2011)
Advice from Professionals; Support from outside agencies; Input from specialist teachers in SEND.	
School-based induction; explanation for provision for pupils with SEND in school; Schools with effective policy related to inclusion.	
Independent research and reading; reading books, articles, web sites.	(Barber & Turner, 2007; Norwich & Nash, 2011)
Day-to-day experience in the classroom; Direct class teaching.	
Informal advice from colleagues; mentor support; school tutorials.	
SENCo support; more contact with SENCos.	
Adapted teaching style to correspond with individual learning styles of pupils	(Hodkinson, 2006)
Positive effects of diversity were emphasised in their classrooms.	
Provision of additional resources.	
Welcoming and supportive atmosphere.	
Effective employment of support staff.	
Careful planning of lessons.	
Every pupil is given an equal opportunity.	
Teaching practices which include all children.	(Florian & Spratt, 2013)
Extending what is ordinarily available for all learners (range of tasks made available for everybody).	
Offering choice within learning (not ranked by levels of difficulty but by purpose of the task).	
Differentiation achieved through choice of activity for everyone.	
Focusing teaching and learning on what children can do rather than what they cannot.	
Grouping children to support everybody's learning.	
Organising the classroom in a more open-ended approach to learning (not based on ability).	
Viewing difficulty in learning as a professional dilemma for the teacher rather than a deficit of the child.	
Co-agency between teacher and pupil and actively seeking pupil's views.	
Commitment to each child.	
Believing all children will make progress, learn, and achieve.	
Using formative assessment to support learning.	
Classroom observation (with a focus on SEND).	(Norwich & Nash, 2011)
Further input / information (how to accommodate for pupils, work with TAs, write an IEP).	
Visit to special school.	

2.8 Limitations

Limitations to this literature review are acknowledged by the researcher. Firstly, the systematic review was small in scale, identifying four eligible studies. This was due to the constraints and restrictions set by the inclusion and exclusion criteria. The criteria were formulated to ensure that studies were completed in the last 20 years and conducted in the UK. These were judged to be important inclusion criteria, as the narrative review identified how educational systems (and inclusion strategies) vary greatly over time and across regional contexts. However, the inclusion criteria were widened to include primary and secondary ECTs, due to the limited number of studies yielded. This has implications for drawing valid conclusions regarding the views of primary ECTs, as two studies included both primary and secondary ECTs in their participant sample. This review highlights the need for further research in this area of inquiry to increase the reliability of future review findings and further our understanding of primary ECT views in relation to inclusion.

Additionally, the eligible studies acknowledge their own limitations. There was a high level of variance in the research focus, sample size, data analysis and quality of studies (Gough, 2007), impacting the level of validity and reliability of the findings included in this review. Further to these limitations, the selection, quality appraisal and synthesis was completed by one researcher due to time constraints and thus researcher bias cannot be ruled out. Using multiple researchers at each stage of this review would increase the inter-rater reliability of findings.

2.9 Systematic Literature Review Summary

Through a systematic review of literature, the researcher investigated what is currently known about primary school teacher's (at the beginning of their career) views in relation to the inclusion of pupils with SEND in UK mainstream schools. Firstly, existing literature identified a significant gap, with only four eligible studies investigated ECT views on inclusion in the UK. Furthermore, only two of the four eligible studies solely investigated the views of primary ECTs (Hodkinson, 2006; Barber & Turner, 2007).

Secondly, existing literature identified that ECT self-efficacy in relation to the inclusion of pupils with SEND was an area for improvement with the majority of ECTs judging their confidence and

preparedness to include pupils with SEND as 'adequate' or 'poor' (Barber & Turner, 2007; Norwich & Nash, 2011). This indicates that this area of inquiry is valuable and important to further our knowledge about what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND.

Finally, whilst existing literature hinted at factors that may help primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND, this was not the research focus for any eligible studies. Additionally, a high level of variance between the factors identified by each study was also discovered. This may in part be due to the discrepancies in research design, participant sample, and research focus. The present study addresses the gaps identified by the narrative and systematic literature review and aims to contribute further knowledge and understanding to the research question: *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND.*

Chapter 3 – Methodology

3.1 Chapter Introduction

This chapter will outline the methodological approach adopted for the present study and will demonstrate the suitability of Q-methodology (Q) in answering the research question: *What helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND in mainstream primary classrooms?* The structure of the methodology section will be as follows:

- Origins & Aims of Q-Methodology
- Ontology & Epistemology
- Alternative Research Designs
- Rationale for using Q-methodology
- Quality Criteria for Q-methodology
- Overview of the Q-Methodology Procedure
- Details of the Q-Methodology Procedure for the Present Study
    - Definition of the Concourse
    - Development of the Q-set
    - Selection of the P set
    - Data Collection
    - Factor Analysis & Interpretation
- Ethical Considerations

To support the reader's understanding of this methodology, a glossary of key Q terminology can be viewed in Appendix 1.

3.2 Origins & Aims of Q-Methodology

3.2.1 What is Q-Methodology?

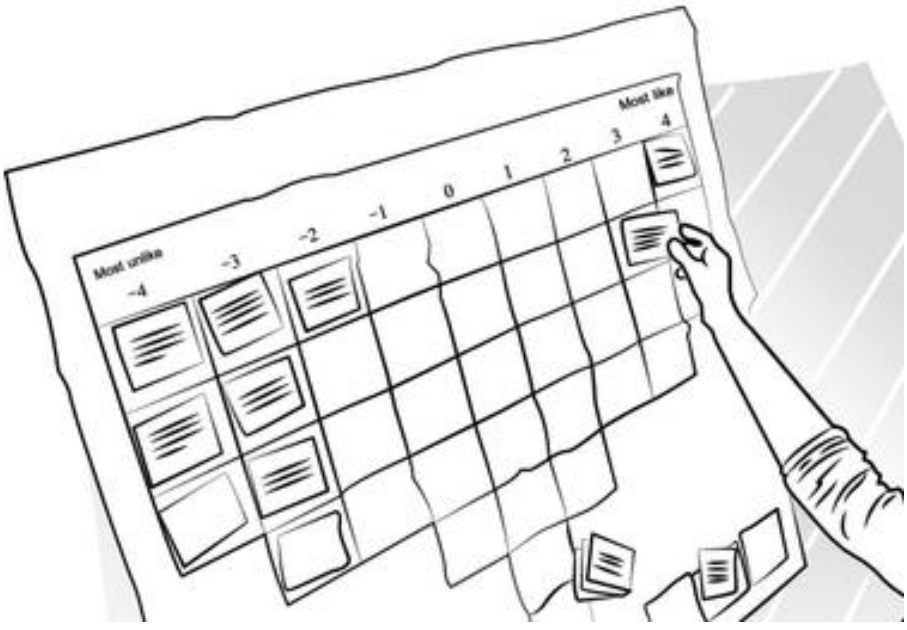
Q provides a qualiquantological way to investigate complex subject matters, bringing to the forefront the shared beliefs and viewpoints held amongst a specific participant sample (Cross, 2005; Hallam, 2014; Stainton Rogers, 1995; Watts & Stenner, 2012). This systematic research approach enables the

dynamic exploration and measurement of subjective viewpoints through a Q-sort activity and by-person factor analysis (Herrington & Coogan, 2011; Watts & Stenner, 2012).

- The *Q-sort* component enables participants to systematically order statements on a continuum related to a particular research topic, and thus represent their holistic viewpoint regarding a subject in a way in which it can be held for inspection and comparison (Herrington & Coogan, 2011). The Q-sort activity is visually depicted in Figure 7.
- The *by-person factor analysis* component enables the identification of participant groups (factors) who have made sense of a complex topic analogously and have configured their Q-sort in a similar pattern (Watts & Stenner, 2005; Webler et al., 2009).

Q is distinctive in its holistic approach to research (Brown, 1980; Watts & Stenner, 2012). It is based on the notion that a phenomenon should be understood as a whole and aims to investigate how the sum of its parts (individual items in the Q-set) contributes to a participant's overall view (finalised Q-set) (Brown, 1980; Watts & Stenner, 2012). Q is described as an abductive approach, as it aims to generate explanations and new insights through the close attention and analysis of participant's views (Watts & Stenner, 2012). Figure 8 summarises how an abductive approach is distinctly different from deductive (proving a theory or hypothesis) and inductive (describing or generalising an observed phenomenon) approaches (Jokhio & Chalmers, 2015).

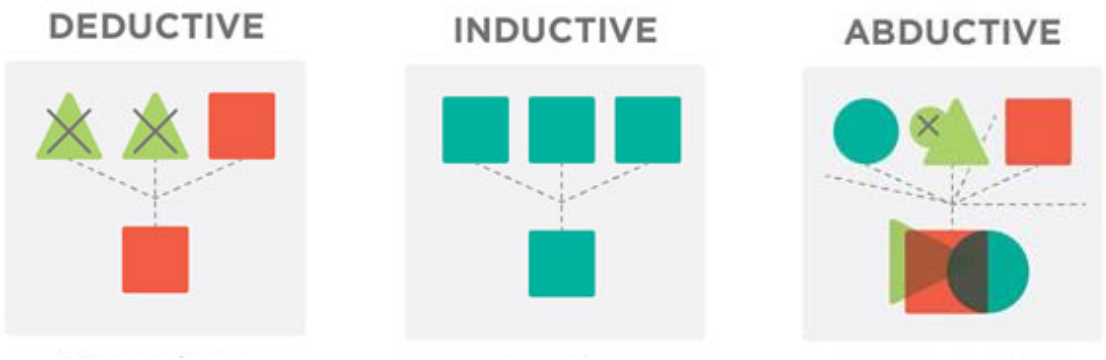
Figure 7
A figure to show the Q-sorting activity.



Note: Source Ellingsen et al., (2014)

Figure 8

A figure to summarise abductive, deductive, and inductive approaches to research.



Note: adapted from Jokhio & Chalmers (2015)

3.2.2 What are the Origins of Q-Methodology?

Q is recounted as one of the first attempts at introducing interpretive and subjective approaches to research methodologies (Watts & Stenner, 2012). It was first developed by William Stephenson who was interested in discovering new ways of exploring an individuals' beliefs, viewpoints, and understandings of phenomena (Stephenson, 1935, 1953). Influenced by his colleague's work at the time (Charles Spearman), Stephenson adapted factor analysis to a by-person factor analysis to identify groups of participants who made sense of a subject matter in a similar way (Stephenson, 1935; Webler et al., 2009).

A key motivation for the development of Q was Stephenson's ongoing dissatisfaction with positivist methods in considering human subjectivity (Watts & Stenner, 2005). Instead, Stephenson aimed to investigate scientifically and holistically what he termed *'operant subjectivity'*: a participants' understanding of a phenomenon within the environment in which it occurred (Watts & Stenner, 2012). This enabled participants to place their own subjective and holistic viewpoint of a phenomenon by configuring a set of items (Q-set) related to a specific topic. In this way, individual items in the Q-set only take on significance in the context of a participant's overall Q-sort configuration (Frater 2021

Watts, 2005). This methodology was named 'Q' to highlight its distinctiveness from R method procedures used in popular positivist statistical tests (Webler et al., 2009). Instead, Q adopts an 'inverted' approach, with participants being the variable rather than the subject (Brown, 1980; Watts & Stenner, 2012). This concept is outlined in Table 11. Importantly, Q makes no psychometric claims and should not be viewed as a statistical method (Small, 2011). Instead, Q correlates subjective views and aims to make sense of complex concepts from the viewpoint of the population involved (Watts & Stenner, 2005, 2012). In the context of the present study, the researcher aims to use Q to explore the pattern of views held by primary school teachers at the beginning of their careers on the complex topic of inclusion.

Table 11
A table to compare the difference between R and Q Methods.

R method	Finding correlations between *variables* across a sample of *subjects*
Q method	Finding correlations between *subjects* (Q-sort) across a sample of *variables* (P set)

3.3 Ontology & Epistemology

Within educational psychology research, there are contrasting ways a researcher may conceive the nature of reality (ontology) and knowledge (epistemology) (Cohen et al., 2018; Mertens & McLaughlin, 2003). Figure 9 outlines how these philosophical stances underpin the methodology and in turn the methods used by a researcher - helping to clarify and organise their thinking (Cohen et al., 2018; Grix, 2002). The researcher adopts a relativist ontological view and social constructionist epistemological view and sought to use a method that aligns with this paradigm (Figure 9):

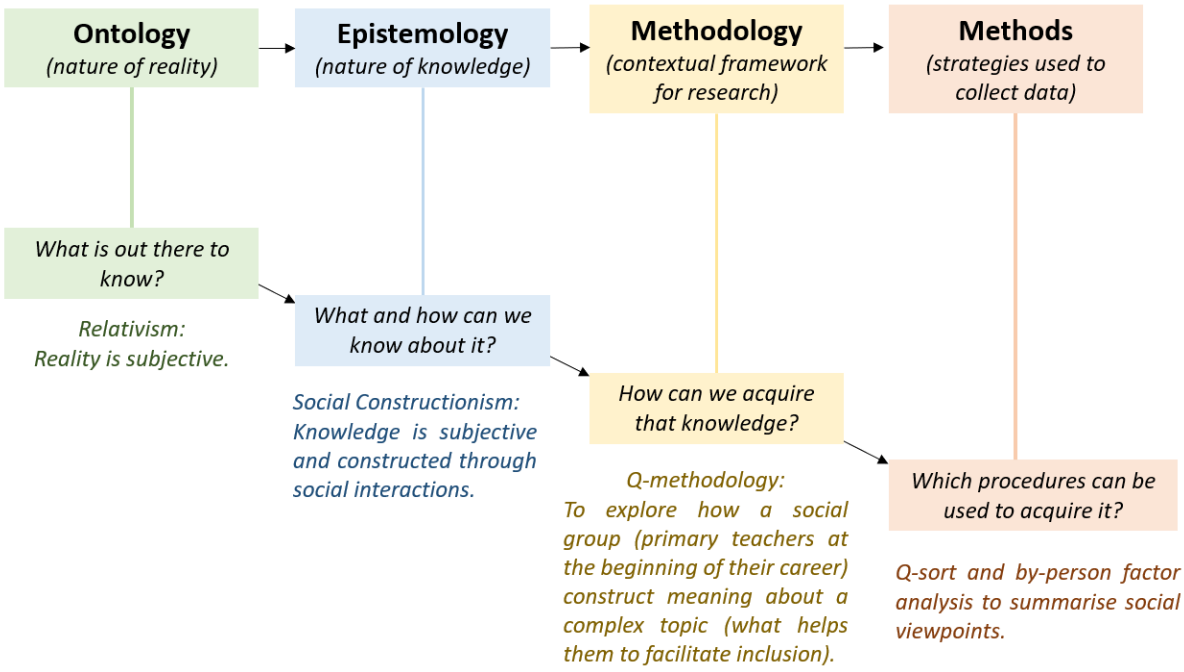
- *Relativism:* reality is subjective, as everyone's experiences and perspectives are unique (Gergen, 2009)
- *Social constructionism*: knowledge is subjective and constructed through social interactions (Mertens, 2020; Robson, 2016; Schwandt, 2000).

This paradigm holds that there are multiple subjective realities and thus it is the researcher's role to investigate the research question through participants' lenses (Cohen et al. 2018). This paradigm also embraces the collaborative construction of knowledge (Robson, 2016). Recognising that the

researcher is a part of construction of knowledge, is important for them to be reflexive, transparent, and aware of the influence their language and values may have on the research process (Burr, 2015; Mertens, 2020). Aligned with this philosophical perspective, Q provided participants with the opportunity to ascribe meaning and importance to each statement and provided the researcher with the means of exploring participant's subjective viewpoints systematically and with a level of objectivity.

Figure 9

A figure to show the relationship between philosophical stances and the method used in this study.



Note: adapted from Grix (2002).

As there are slight nuances between social constructionism and social constructivism, it is helpful to clarify the distinction between them and their research focus in Q (Table 12). Whilst both paradigms are interested in how knowledge is socially constructed and are used within Q research, social constructionism tends to focus on *social groups*, whereas social constructivism focuses on *individuals* (Robson, 2016; Watts & Stenner, 2012). This study aligns with social constructionism – exploring how a specific *social group* (primary school teachers at the beginning of their career) construct meaning about a complex topic (what helps them to facilitate inclusion) in comparison to each other. Whilst each participant will complete their own Q-sort arrangement according to their own subjective views,

the data analysis will reveal shared social viewpoints among this participant group about what helps them to facilitate inclusion.

Table 12
A table to compare social constructionism / constructivism in Q-methodology research.

Social Constructionism	Social Constructivism
Concerned with a social group's constructions	Concerned with an individual's construction
Focus on revealing the construction of *groups* of people and consequently shared viewpoints	Focus on revealing *individual* participants' construction of reality and their viewpoints

3.4 Alternative Research Designs

Q was reasoned to be the most appropriate research design to explore primary school teacher's views at the beginning of their career about what helps them to facilitate the inclusion of pupils with SEND. However, alternative research designs were considered. The systematic literature review identified four studies completed in the UK that investigated primary ECT views on the inclusion of pupils with SEND (amongst other inclusion criteria). Three of these studies used questionnaires (Barber & Turner, 2007; Hodkinson, 2006; Norwich & Nash, 2011), and one used a semi-structured interview (Florian & Spratt, 2013). Both designs were deliberated for the present study and the rationale for Q will be discussed in this section. The choice of Q was also informed by informal discussions with three primary teachers (in their second year of teaching) prior to the pilot study. These discussions indicated that they did not yet feel confident answering the research question due to the early stage in their career and would benefit from scaffolded prompts.

Firstly, whilst questionnaire design would have enabled wider data collection, they would not have supported holistic data collection that aligned with the researcher's epistemological standpoint and research question. Q provided a means of identifying commonality in the participants' whole view rather than commonality in responses to distinct questions when using a questionnaire (Beech, 2021; Kitzinger, 1999). The researcher was hesitant to provide 'closed questions' that reflected their own prior assumptions. Instead, through the configuration of statements within the Q-set, participants decided what areas were of importance and relevance to them rather than this being imposed through the researcher's choice of questions or interpretations when using questionnaire designs (Beech,

2021; Crosby, 2015). Additionally, information from the target participant sample group suggested that they may not yet feel confident answering 'open questions' without some prompts or guidance. Q addressed this difficulty by providing participants with possible ideas to the question and enabled the analysis of shared viewpoints within this participant sample group, which was the aim of this study (Plummer, 2012).

Secondly, interview designs were considered to provide rich qualitative data regarding factors considered to help primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND. However, informal discussions with the target population group indicated that they may not have formulated pre-existing clear narratives due to the early stage in their career and the researcher was concerned that this may have led to some difficulty in participants articulating their viewpoint coherently during interviews (Baker et al., 2006; Frater, 2021). It was reasoned that Q provided an appropriate means of giving possible ideas to the research question, whilst also allowing subjective and holistic viewpoints to be expressed (Watts & Stenner, 2012).

3.5 Rationale for Q-methodology

Q provided a 'middle-ground' between interview and questionnaire designs (Zabala et al., 2018) and was believed to be the best fit for the present study. Q gives equal importance to all participants' holistic and subjective viewpoints, whilst simultaneously highlighting nuances between their views (Watts & Stenner, 2012). In this way it aligns with the relativist ontological view, allowing sufficient room for individuality to be expressed, and the social constructionist epistemological view, revealing shared social viewpoints among a specific population group (Brown, 1980).

Q provides a unique qualiquantological research approach, enabling researchers to gather both quantitative and qualitative data from a specific participant sample group about a complex subject matter (Stainton Rogers & Stainton Rogers, 1990). Literature suggests that Q is a valuable research approach to explore complex and socially contested topics and where a particular population's viewpoints are of importance (Watts & Stenner, 2012). In relation to the present study, Q provided a helpful approach to explore the viewpoints of primary school teachers at the beginning of their career regarding the complex concept of inclusion: specifically, what helps this underrepresented population group where staff retention is particularly low to facilitate the inclusion of children with SEND in their classrooms.

3.6 Quality Criteria for Q-Methodology

Like all research methodologies, there are strengths and limitations to Q. The researcher recognised potential risks to the quality of findings and through careful consideration aimed to recognise and where possible minimise these risks (Webler et al., 2009).

Quality Indicators

Firstly, *validity* within quantitative research refers to the extent to which a study achieves what it set out to (Cohen et al., 2018). Perhaps the most pertinent risks to the validity of Q studies are researcher bias and the extent to which the items included in the Q-set offer a broad and balanced view of the research topic (Webler et al., 2009). Q-researchers provide several suggestions to mitigate risks to validity in studies including (Watts & Stenner, 2012; Webler et al., 2009):

- Piloting the Q-sort to test the range of items included in the Q-set.
- Consulting with specialists in the specific area of inquiry to ensure the Q-set is representative.
- Using natural language that participants will be familiar with.
- Asking participants after the study has been completed to comment on whether they would have added any further statements to the Q-set and where they would have ranked these.
- Using a transparent methodical process when interpreting findings
- Peer-review checks of the Q-set and factor analysis procedure.

Guided by Q-research guidance, Table 13 outlines several risks to validity in the present study and the strategies that were implemented to manage them.

Secondly, *reliability* within quantitative research refers to the extent to which the results could be replicated on a different occasion (Cohen et al., 2018). The reliability of Q is often critiqued due to small sample sizes and the subjectivity of participants completing the Q-sort (Robson, 2011). Within Q research this quality indicator is difficult to mitigate, as the purpose of Q is to provide a snapshot of views at a particular moment in time (Webler et al., 2009). That said,, researchers have provided evidence that the Q-sort reveals a relatively stable view over time (Akhtar-Danesh et al., 2008; Brown, 1980; Nicholas, 2011). This suggests that primary ECTs who completed the present study may sort the Q set in similar arrangements in the future, however this cannot be assumed. It is advised that Q researchers provide participants with the opportunity to reflect, review, and make appropriate

changes to their final Q-sort configuration to ensure valid expression of their view and in turn increase the reliability of the findings (den Brok et al., 2010).

Table 13

A table outlining key threats to validity and mitigation strategies.

Threat	Description	Mitigation Strategies
Researcher Bias	The researcher's subjective decision-making during the Q-set development, data analysis, and interpretation could impact the findings. The researcher's use of language may also impact how the Q-sorting task is completed.	- *Transparent accounts of decision-making and methodical processes when interpreting findings.* - *Peer-review checks.* - *Pilot Study.* - *Use of natural language that participants will be familiar with.*
Self-Selection Bias	Participants who show interest in the study and email the researcher may differ (e.g., feel more passionately about inclusion) from the non-responding population.	- *Acknowledge this limitation.* - *Gather demographic data e.g., how they trained to be a teacher / how important inclusion is to them.*
Social Desirability Bias	Participants may feel social pressure to express a view endorsed within society. Participants may also perceive that the researcher wants a particular response.	- *The study will be completed anonymously and online.* - *Participants will not be observed or recorded whilst completing the Q-sort task.* - *The researcher will emphasise that there is no right or wrong answer.*
Restrictive Q-set / Format	The Q-set items may not provide a broad and balanced view of the research topic. The fixed distribution format may feel restrictive. Participants may feel unable to accurately portray their level of agreement with the statements.	- *Rigorous Q-set refinement.* - *Peer review checks.* - *Piloting the Q-set.* - *Asking follow-up questions (e.g., any statements you would have added).* - *Asking participants to identify the column they feel most neutral about (zero salience line).*
Errors in Q-sort Completion	The participant may complete the Q-sort incorrectly. The online platform may not save the results.	- *The researcher will provide information before the study and be available to answer questions via Microsoft Teams.* - *The online Q-sorting task was piloted and reviewed.* - *Participants were reminded to save their results before proceeding with the follow-up questionnaire.*

Finally, *generalisability* within quantitative research refers to the extent to which the results are representative of the wider population (Cohen et al., 2018). Perhaps one of the key limitations of Q is that it cannot identify how widely the participant's views are shared or how generalisable they are to the wider population (Webler et al., 2009). However, within Q research this quality indicator is not of interest to the Q-researcher (Watts & Stenner, 2012). This is because Q research aims to reveal existing viewpoints *within* a specific participant sample without the need or intention to generalise further (Watts & Stenner, 2012). In terms of the present study, the findings from 14 female primary school teachers at the beginning of their careers may not be generalisable to the wider population (Baker et al., 2006; Rodl et al., 2020; Van Exel & De Graaf, 2005). Instead, the present study may provide the opportunity for further research with a different population sample, for example investigating the views of secondary ECTs or experienced primary teachers.

3.7 Overview of the Q-Methodology Procedure

It is important to acknowledge that Q has received a level of critique due to a lack of understanding of this methodology in comparison to other research methods (Kitzinger, 1999). To alleviate misconceptions, many researchers have created guides, primers, and summaries of the Q process (Watts & Stenner, 2012; Webler et al., 2009). Although there is some variety in the number of steps outlined by researchers, there is a general agreement on the systematic sequence (Combes et al., 2004; Van Exel & De Graaf, 2005; Watts & Stenner, 2012). Thus, to support the reader's understanding, an overview of this sequence can be viewed in Table 14 and a summary of each step will be outlined throughout this section (Van Exel & De Graaf, 2005; Webler et al, 2009, McKeown & Thomas, 2013).

Table 14
A table to summarise the five steps of the Q-methodology procedure.

	***1. Definition of the Concourse:*** identifying what is currently known about a specific field.
	***2. Development of the Q-set:*** items particularly pertinent and representative when answering the research question.
	***3. Selection of the P set:*** recruiting participants (usually from a specific population group) and gaining informed consent to participate.
	***4. Data Collection:*** administering the Q-sort to participants and obtaining additional qualitative data.
	***5. Factor Analysis & Interpretation:*** correlating the Q-sort data, extracting factor arrays, and producing holistic summaries of each viewpoint identified.

A summary the research timeline and of how each step was applied to the present study can be viewed in Appendix 9 and 10 consecutively. The structure of the following sections (3.8 – 3.12) will be as follows:

1. An overview of the Q step,
2. How it was adopted for the present study.

3.8 Step One- Defining the Concourse

3.8.1 Defining the Concourse

The *concourse* is described by Brown (1993) as *'the flow of communicability surrounding any topic in the ordinary conversation, commentary and discourse of everyday life'* (Van Exel & De Graaf, p.4) and consists of a broad range of possible answers (ideas, opinions, or arguments) about a specific research question. The concourse often consists of information from a range of sources such as academic literature, government documents, media, or informal discussions (Herrington & Coogan, 2011; Van Exel & De Gaaf, 2005; Webler et al., 2009). The items that make up the concourse are usually statements, but pictures, smells, or singular words are also used (Stephenson, 1953; Watts & Stenner, 2012). It is advised that the concourse items must be clear, concise, and easy to understand to support the development of the Q-set and administration to participants (Webler et al, 2009).

3.8.2 The Present Study: Defining the Concourse

In the present study, the researcher first identified what is currently known about the specific field of inquiry: *What helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND?* Guided by Q research (Watts & Stenner, 2012; Webler et al., 2009) the researcher investigated this field through a range of sources, including:

I. Review existing literature, educational policies, and views expressed in media reports and internet searches. Several electronic databases (PsychINFO, Eric, SCOPUS, Google Scholar, and NuSearch) were used to conduct a systematic literature view about the topic. This is outlined in detail in Chapter 2 (Literature Review). This task was useful in identifying key ideas, themes, and opinions related to the research topic.

II. Asking experienced educational professionals about their views on what helped them to facilitate the inclusion of pupils with SEND. The researcher was aware of their own experience as a primary

school teacher and guided by Q research included their views on the subject matter during the concourse stage (Watts & Stenner, 2012). The researcher also asked experienced educational professionals what support they wished they had received retrospectively. This identified specific statements such as *'time and support planning inclusive lessons'* and *'opportunities to observe good practice.'*

The researcher used the information gathered through literature reviews and informal discussions with experienced educational professionals to identify broad statements, that could answer the question *'What helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND in mainstream classrooms*.' The 130-item concourse can be viewed in Appendix 6. For transparency, the researcher has also noted the source of each statement in the concourse.

3.9 Step Two- Development of the Q-Set

3.9.1 Developing and Refining the Q-set.

The second step of Q research involves the strategic condensing of the concourse to formulate the *Q-set*: a reduced number of items that are pertinent and representative to the research question (Watts & Stenner, 2012; Webler et al, 2009). Watts and Stenner use the metaphor of *'carpet tiles'* to emphasise the importance of ensuring that each item in the Q-set covers a unique section of the conceptual space, and as a collective the area of inquiry is covered without overlaps or gaps (Watts & Stenner, p. 61).

Research maintains that there is no 'right way' to produce a Q-set, though rigorous refinement is required, as participants cannot share their views if the statements are not made available to them (Cross, 2005; Watts & Stenner, 2012). A Q-set can be described as structured or unstructured, depending on how it is developed (Watts & Stenner, 2012). A structured Q-set evolves from a framework or set of themes, whilst an unstructured Q-set requires the researcher to take a wide perspective of the research topic. Table 15 summarises the difference between these methods and the pros and cons of each (Watts & Stenner, 2012).

Research accentuates the importance of the finalised Q-set offering a broad and balanced range of options about a research topic, whilst also maintaining that each item provides a unique contribution

(Watts & Stenner, 2012). Testing of the Q-set in pilot studies and peer reviews is advocated to support the refinement process and reduce researcher bias (Herrington & Coogan, 2011; Sexton et al., 1998).

Table 15
A table to compare structured and unstructured Q-sets.

	Structured Q-Set	***Unstructured Q-Set***
Development	A structured Q-set is developed using a framework or set of themes to arrange the statements.	An unstructured Q-set is developed by looking at the research topic as a whole.
Pros	This systematic method can support the development of a broad, balanced, and comprehensive Q-set.	This fluid method offers more freedom in the construction of the Q-set.
Cons	However, if the framework or themes used to construct the Q-set have key areas missing, this could compromise the credibility of the finalised Q-set.	However, this method may be more difficult, time-consuming, and increase the risk of researcher bias.

Q-set Number

The ideal number of items in a Q-set is highly contested and greatly dependent on the specific research question, however, it is generally agreed that a Q-set between 40-80 items has become standard (Stainton Rogers, 1995; Watts & Stenner, 2012). The researcher must find a balance between providing enough statements to enable participants to express their views, whilst also ensuring the Q-sorting task is not overly laborious (Webler et al., 2009). Some studies have provided further pragmatic guidance, for example, Akhtar-Danesh et al (2008) identified that participants spent one hour configuring a rank-order Q-set of 50 statements.

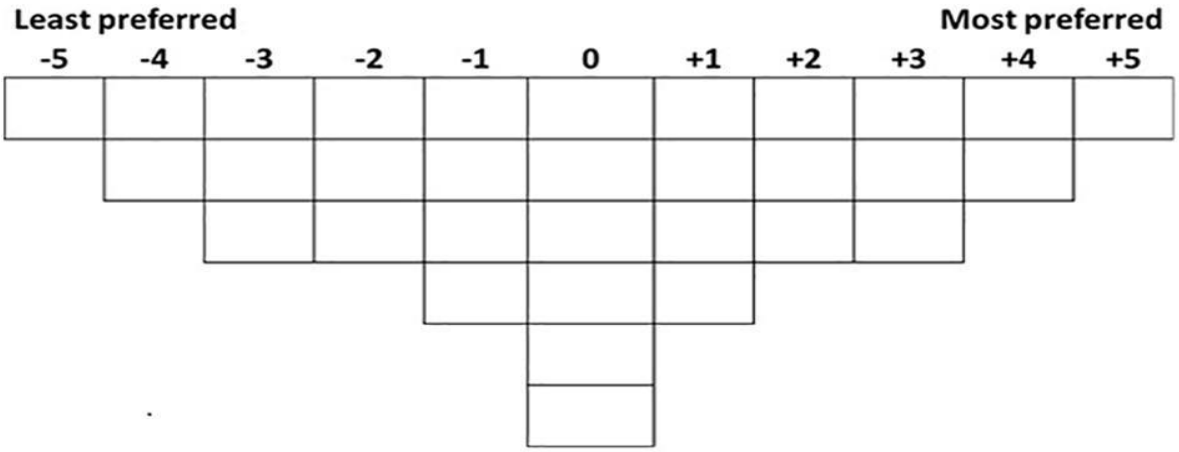
Q-set Distribution

The Q-set can be presented using a *fixed* or *free* distribution format. Figure 10 provides a visual depiction of how these formats differ. Using a fixed normal distribution Q-grid ensures that participants reveal preferences clearly and distinctively and enables data to be collected and processed in a more convenient format (Block, 2008; Watts & Stenner, 2012; Webler et al., 2009). For this reason, fixed

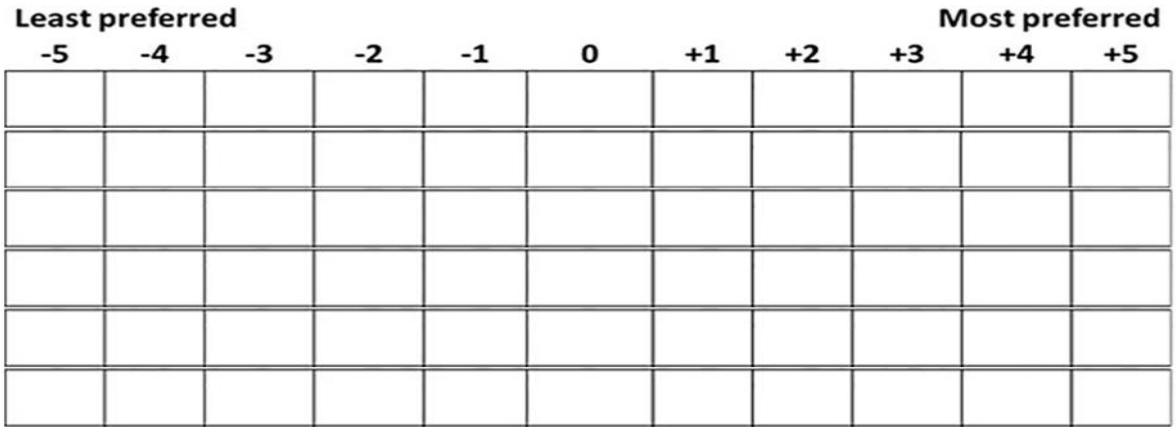
distributions are typically adopted by researchers (Watts & Stenner, 2012; Webler et al., 2009). However, a fixed distribution can feel restricting for participants, whilst a free distribution allows participants to place items at any point of the scale – providing them with more choice and control (Taylor, 2016). Counter to this, Brown (1980, p. 267) argues that fixed distributions provide *'ample opportunity for individual difference,'* as there are billions of unique possible combinations that participants may choose even with a thirty-three statement Q-set on a nine-point scale (Taylor, 2016). Thus, although participants may feel limited in their responses when using a fixed distribution, there is still considerable scope for flexibility (Brown, 1980; Watts & Stenner, 2012).

Figure 10

A figure to compare fixed and free distribution formats used to present the Q-set.



Quasi-Normal Fixed Distribution Format: items can only be placed in a pre-set pattern.



Free Distribution Format: items can be placed at any point of the scale.

Typically, researchers implement a fixed quasi-normal distribution format between an 11-point scale (+5 to -5) and a 13-point scale (+6 to -6) (Frater, 2021; Watts & Stenner, 2005). The scale range is somewhat dependent on how many items are included in the Q-set (Beech, 2021). Although the type of scale adopted can vary, it is advised that the continuum includes simple opposites (Watts & Stenner, 2012). For example, participants are usually asked to sort statements on a continuum from 'strongly agree' to 'strongly disagree' (Brown, 1980)

3.9.2 The Present Study: Developing the Q-set.

In the present study, the researcher refined the 130-item concourse into a 32-item Q-set (Appendix 6 – 8). Some example Q-set items are displayed in Figure 11. During this stage of the study, it was essential to review Q guidance and make pragmatic decisions regarding how the Q-set was developed, the size of the Q-set, the distribution format, and defining the poles of the continuum.

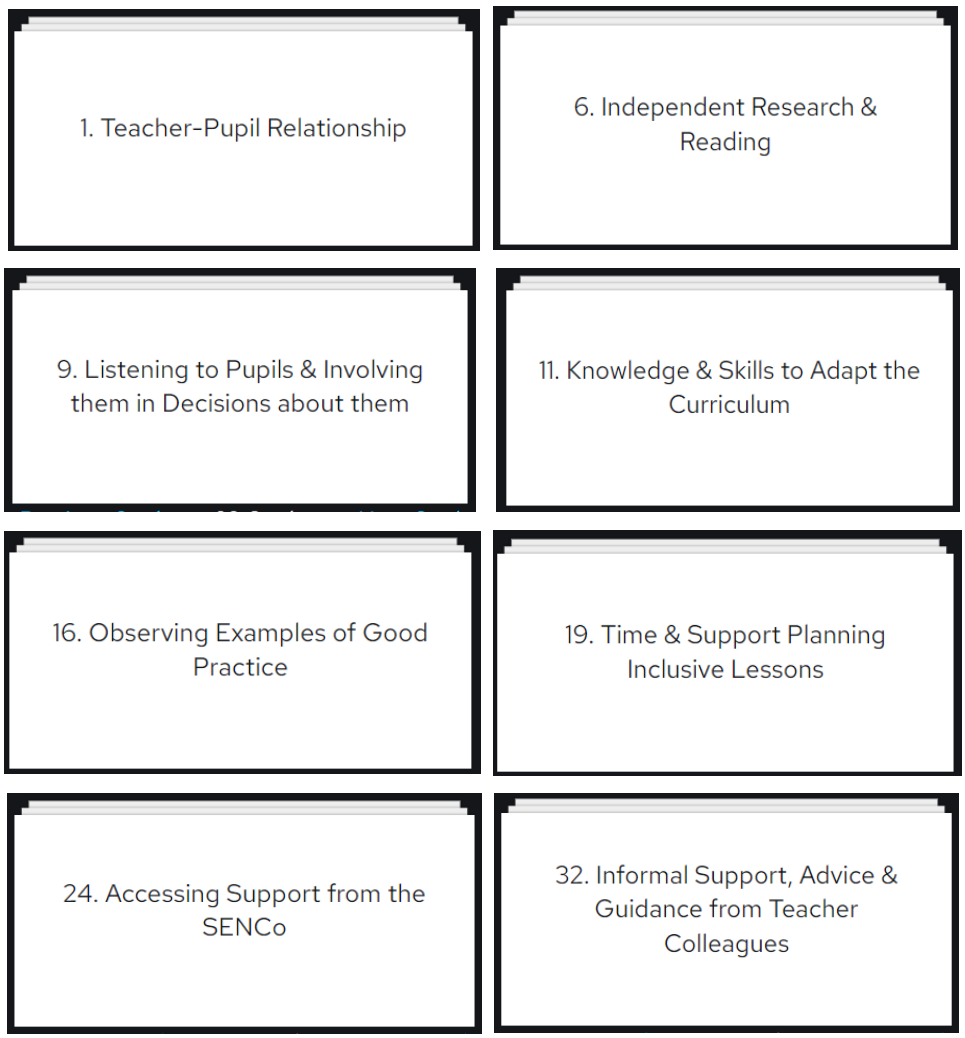
Firstly, an *unstructured Q-set* was developed. The rationale for this decision was two-fold: the researcher did not hold prior assumptions regarding the themes surrounding this area of inquiry and the literature review revealed limited research investigating what helps primary teachers to facilitate the inclusion of pupils with SEND (Watts & Stenner, 2012). For these reasons, a structured Q-set was inappropriate. Thus, the researcher viewed the research question as a whole and carried out a rigorous refinement process to develop the Q-set.

Secondly, a *smaller Q-set number* (initially 34 statements) was used for the present study. As there are no set requirements on the Q-set number, this decision was guided by research that identified a 50-statement Q-set to take approximately one hour to complete (Akhtar-Danesh et al., 2008). The researcher was aware of the time constraints for the target participant sample group and was careful to ensure that the task was achievable for them to complete (Webler et al., 2009). The aim was to ensure that the Q-set provided a broad and balanced range of options, whilst also making sure that it was not too laborious to sort (Watts & Stenner, 2012).

Thirdly, a *nine-point scale fixed distribution* was used for pragmatic reasons, as this format fit the Q-set size appropriately, enabled the data to be collected and processed conveniently, and is commonly used within Q-research (Block 2008; Watts & Stenner, 2012). Additionally, Q-researchers argue that

although participants may feel limited in their responses when using a fixed distribution, there is still considerable scope for flexibility (Brown, 1980; Watts & Stenner, 2012).

Figure 11
A figure to show example Q-set statements for the present study.



Finally, to support participants in answering the research question 'What helps you to facilitate the inclusion of pupils with SEND in your classroom.' the *poles* were labelled *'more helpful - less helpful'.* The researcher deliberated using the poles of 'facilitators' and 'barriers' to inclusion, however, it was felt that this could lead to some conceptual issues, as these poles are not simple opposites. Thus, participants may have had some difficulty sorting the statements onto the continuum. The researcher also deliberated using the poles 'most helpful - least helpful' / 'helpful – unhelpful,' however, it was felt that this terminology could lead to some difficulties in sorting the statements. For example, there

may not be any statements considered unhelpful but rather less helpful than the other statement options. The poles 'more helpful - less helpful' were felt to overcome this difficulty.

3.9.3 The Present Study: Refining the Q-set.

To support the rigorous refinement process of the Q-set (Appendix 6 – 8), the researcher completed several actions advised by Q research (Watts & Stenner, 2012). These actions will now be discussed, alongside the rationale for the decisions made.

Firstly, the removal of duplicates and merging of items:

The researcher discovered that several items had been identified from a variety of sources, thus, duplicates were removed (Oppenheim, 1992). For example, 'staff training' has been identified in several studies, government legislation, and informal discussions with educational professionals. To support the refinement process, the researcher also used structured sampling to merge items that represented a similar theme (McKeown & Thomas, 2013; Webler et al., 2009). The researcher reviewed each statement to ensure they were unique in their contribution (Webler et al., 2009). Statements were also edited to improve clarity and conciseness (Oppenheim, 1992; Watts & Stenner, 2012).

Secondly, peer review checks:

Guided by Q research, the researcher asked a convenient sample of six experienced primary teachers and two peer researchers familiar with Q-methodology and the research topic to scrutinise the concourse (Watts & Stenner, 2012). This process was completed using the online platform Padlet (https://padlet.com/) where participants highlighted the statements, they felt were particularly pertinent to the research question (from their view and experience). The researcher also asked peers to identify any statements they felt were unclear or missing (Watts & Stenner, 2012). This supported the researcher's refinement process of the concourse and identified 34 items to be included in the Q-set (Appendix 7).

Thirdly, testing the Q-set in Pilot Studies:

The researcher chose to pilot the study *online* to see if this was a feasible option for the present study. The rationale for administering the Q-set online rather than face-to-face was three-fold: it would enable the research opportunity to be accessed by a wider participant sample, reduce the time and travel commitments for the participant and researcher, and enabled the Q-sorting activity to be displayed and collected in a time-efficient way. The online program QTip (https://qtip.geography.wisc.edu) was used to present the Q-sorting activity, as it was free to download and easy to use.

Guided by Q research (Herrington & Coogan, 2011; Sexton et al., 1998), the researcher asked for a convenient sample of four participants to pilot the online study. The participant sample was gained by drawing upon personal and professional connections and included two Trainee Educational Psychologists, and two experienced teachers, all of whom provided written consent (Appendix 11). The purpose of the pilot study was to gain feedback on the items included in the Q-set and the online Q-sorting process.

The researcher emailed each participant their unique website link to the online Q-sorting task (using the online program QTip) and a review document that contained information about the pilot study and follow-up questions, which can be viewed in Appendix 11 -13. Based on Watts and Stenner's (2012) guidance, the researcher asked participants to comment on the following:

1. *Q-set Items*
   Did you feel the Q-set statements were clear?
   Did any statements in the Q-set express similar or overlapping ideas/concepts?

2. *Q-set Coverage*
   Do you feel that the Q-set adequately covered the broad range of factors that help primary teachers facilitate the inclusion of pupils with SEND?

3. *Q-sort Process*
   Overall, how did you find the online Q-sorting activity?
   Do you have any suggestions or comments that would further improve the finalised Q-set?

The pilot study feedback will now be summarised alongside the subsequent actions implemented. Further details provided by each of the four participants are combined and summarised in Appendix 14.

I. Feedback on the Q-set items and coverage:

The pilot study concluded that the statements were largely clear, easily understood, and offered a comprehensive coverage of the research topic. One participant shared how *'each one is very important'* and has *'a different meaning.'* Utilising participant's feedback regarding statement ambiguity, the following two statements were modified:

- '*Teacher self-efficacy'* was modified to *'teacher confidence with including pupils with SEND.'*
- *'Being open to learn'* was modified to *'being open to learn and improving your teaching practice.'*

Additionally, information from the pilot study provided a further rationale for using a smaller Q-set number for this study, as participants felt there was more than adequate coverage of the research question. Some participants felt some of the items could be further grouped and merged (for example staff training and continuous professional development). For this reason, two of the statements were merged and the final Q-set included 32 items (Appendix 8).

II. Feedback on the online Q-sorting process:

The pilot study concluded that the online Q-sorting process was easy to use and navigate. One participant shared how she found the software *'visually engaging whilst remaining straightforward to use' a*nd how they *'appreciated being able to click statements from one column to another'* until they were happy with the final sort. Additionally, information from the pilot study provided a further rationale for the Q-sort distribution used for the study, participants felt the quasi-normal fixed distribution did not restrict their ability to express their views.

3.10 Step Three- Selection of the P set

3.10.1 Selection of the P set

The next step of the Q procedure involves the selection of the *P set:* the participant sample taking part in the study. Q is unique in that it does not require a sample to be representative of the entire population. It is advised that Q researchers should select a participant sample that will not contain much variability in opinion (e.g., from a specific population group) and who have something interesting to say about the research topic (Watts & Stenner, 2012; Webler et al, 2009; McKeown & Thomas, 2012).

P set Number

The ideal number of participants for Q research is highly contested and dependent on the number of items in the Q-set. Typically, the P set is between 40-60, although it is suggested that less than 50 is desirable (McKeown & Thomas, 2013). Whilst it is important that enough Q-sorts are completed to ensure a range of different viewpoints emerge from the data (Brown, 1980; Watts & Stenner, 2012), it is agreed that it is helpful to have a P set number lower than the Q-set number (Van Exel & De Graaf, 2005). Additionally, key researchers recommend ratios of 3:1 or 2:1 (statements: participants) (Watts & Stenner, 2012; Webler et al., 2009). This is because too many participants can lead to finer patterns in the data being missed or overlooked and, thus, the quality of the research is reduced. It is advised that the participant number should be limited in the same way that one would also limit variables (Watts & Stenner, 2012).

3.10.2 The Present Study: Developing the P set.

The participant inclusion criteria for the present study were as follows: primary school teachers within their first and second year of teaching (post-training) in mainstream English classrooms. The P set was chosen by the researcher, as the literature review highlighted limited research investigating the views of primary ECTs themselves and teacher retention becoming a growing concern (Antonsen et al., 2020; O'Reilly & Colum, 2021). However, due to participant recruitment difficulties, the participant inclusion criteria were later widened in October 2023 to primary teachers in the first, second, or *third* year of teaching. This was an appropriate and pragmatic adjustment that still enabled the exploration of the

research question: what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND.

The researcher used snowball purposeful sampling to recruit participants by sending recruitment posters to personal, professional, and social connections. The recruitment poster can be viewed in Appendix 15 provided key information about the study and invited participants interested in taking part to email the researcher for further information about the study. During August – October 2023, the researcher sent the recruitment poster via email to:

- Schools within the researcher's placement local authority to distribute to the target population group.
- The teacher training course director at Nottingham University to distribute to recently qualified primary teachers.
- Personal and professional connections with primary school teachers.

Due to recruitment difficulties in October 2023, the researcher also distributed the recruitment poster via social media (Twitter, Facebook, Instagram) and drew upon connections with other Educational Psychology Services to access a wider audience.

During August – October 2023, the researcher received 16 emails from interested participants, who met the participant inclusion criteria (primary teachers in their first, second, or third year of teaching in mainstream primary schools). Following research ethical guidelines (BPS, 2021) participants who had shown an interest in the study were emailed further information about the study (Appendix 16), a participant consent form (Appendix 17), and an opportunity to ask further questions. Through email correspondence, the researcher and participant scheduled a time to meet via Microsoft Teams to complete the Q-sorting activity and follow-up questionnaire. Importantly, the researcher ensured that they had signed informed consent from participants before proceeding with the study. The participant was ensured confidentiality of information and made aware of their right to withdraw from the study. When the researcher obtained informed consent, each participant was given a participant identification number to ensure anonymity.

Out of the 16 participants who indicated initial interest in the study, 14 participants returned their informed consent form, scheduled a meeting with the researcher, and completed the study. This was

within the suggested ratio of 2:1 and 3:1 statements to participants (Watts & Stenner, 2012; Webler et al., 2009). Demographic details of the P set are presented in Table 16. The final sample were all female and were within their first, second, and third year of teaching post qualification.

Table 16

A table to show demographic details of the P set.

Demographic Information		***N***	***Percentage***
Gender	*Female*	*14*	*100*
	Male	*0*	*0*
Age	21-25	*6*	*42.8*
	26-30	*6*	*42.8*
	31-40	*0*	*0*
	41-50	*2*	*14.2*
Years Teaching Post Training	*First year*	*2*	*14.2*
	Second year	*10*	*71.4*
	Third year	*2*	*14.2*
Primary Teacher Training	*Degree*	*5*	*35.7*
	PGCE	*4*	*28.5*
	SCITT	*2*	*14.2*
	Schools Direct	*3*	*21.4*
Year Group Currently Teaching	*Reception*	*2*	*14.2*
	Y1	*4*	*28.5*
	Y2	*2*	*14.2*
	Y3	*0*	*0*
	Y4	*4*	*28.5*
	Y5	*1*	*7.1*
	Y6	*0*	*0*
	KS2	*1*	*7.1*
County	*Nottinghamshire*	*9*	*64.2*
	South Yorkshire	*2*	*14.2*
	West Yorkshire	*1*	*7.1*
	Leicestershire	*1*	*7.1*
	Warwickshire	*1*	*7.1*

3.11 Step Four- Data Collection

3.11.1 Administering the Q-Sort

The Q-sort involves participants evaluating items in the Q-set and ranking them along a scale (Watts & Stenner, 2005). This process enables participants to express their subjective viewpoint toward the research question (Brown, 1980; Watts & Stenner, 2012). Whilst all Q-methodology research will involve administering the Q-sort to participants, the specific details of the Q-sorting task vary from study to study. For example:

- *the number of Q-set items to sort*
  This ranges greatly and will be dependent on the specific research question being investigated to ensure it provides balanced and representable coverage of the research topic.
- *the type of Q-set items to sort*
  E.g., the Q-set may be made up of statements, words, pictures, or smells.
- *the Q-grid format*
  E.g., a fixed or free distribution
- *the Q-sort scale range*
  E.g., how long the scale is and how many items can be placed in each column of the scale. This will depend on how many items are included in the Q-set.
- *the poles of scale*
  E.g., from strongly agree to strongly disagree or most like my view to least like my view.
- *the details of administration*
  E.g., whether the Q-sort is completed face-to-face, postal, or online / whether it involves a pre-sorting activity or not.

Before completing the Q-sort, participants will be provided with a *condition of instruction,* which provides them with critical information on how to sort the statements (Beech, 2021). It is generally advised that researchers should make it clear in their instructions that the negative value of the scale does not necessarily have to indicate that they disagree with the item but that they agree with it less than the items they have placed toward the positive end of the scale (Frater, 2021). In addition, researchers may ask participants to identify the point of the scale or column they feel most neutral about (for example when their view changes from agree to disagree) (Frater, 2021). This is called the zero-salience line. Some researchers advise that participants should be encouraged to read all the

statements first before organising them into three distinct piles *(e.g., agree, disagree, neutral)* and then finally arranging them onto the Q-grid (McKeown & Thomas, 2013). Key researchers advise that participants should be encouraged to move the items in the Q-sort at any point during the task and review their final configuration to check that it represents their overall viewpoint on a topic (Herrington & Coogan, 2011; Watts & Stenner, 2012; Webler et al., 2009).

Follow-up Question

Following the completion of the Q-sort, participants are often asked for further information to support the analysis of their Q-sort (Watts & Stenner, 2005, 2012). This may include:

- *Information about the participant* (Watts & Stenner, 2012)
  (e.g., age, gender)
- *Information about the participant's views* (Brown, 1980; Watts & Stenner, 2012).
  (e.g., why they placed items at the highest and lowest points of the scale)
- *Information about the Q-sort activity* (Watts & Stenner, 2012; Webler et al., 2009).
  (e.g., were there any items that were missing or lacked clarity)

This data can support the researcher's interpretation of the factor analysis (Small, 2011). Follow-up questions may be asked in the form of a questionnaire or a semi-structured interview (Watts & Stenner, 2012.

3.11.2 The Present Study: Data Collection

The researcher administered the Q-sorting activity online for pragmatic reasons. Research highlighted that online Q studies are less labour-intensive for both the researcher and participant and less intimidating for participants to complete (Nazariadli et al., 2019). Additionally, information from the pilot study indicated that the online program QTip (https://qtip.geography.wisc.edu) was visually engaging, straightforward, and easy to use. Before meeting with participants, the researcher input the 32 statements (finalised Q-set) and selected the nine-point scale fixed distribution option. The researcher chose to use a quasi-normal fixed distribution to enable data collection conveniently, whilst also providing participants with multiple options to express their views (Brown, 1980). A visual depiction of the online card-sorting task can be viewed in Figure 6. The research question presented to participants was: What helps you to facilitate the inclusion of pupils with SEND in your classroom? Participants were asked to sort the 32 statements on a continuum from 'more helpful' to 'less helpful'.

To support the completion of the Q-sorting activity and follow-up questionnaire, the researcher organised an online MS Teams meeting at a time convenient for the participant. The rationale for this decision was two-fold. First, it ensured that the researcher was available to answer any questions and help provide verbal instructions on how to complete the study. Secondly, it provided a level of accountability and ensured the Q-sort and online questionnaire were completed in a timely manner. As the Q-sorting data was gathered via the online platform and follow-up questionnaire the researcher did not record or transcribe the meeting. The researcher will now outline the structure of each participant's data collection meeting.

i. Scheduling a data collection meeting:

Following informed consent, the researcher scheduled a 45-minute Microsoft Teams meeting with the participants at a time convenient for them. The researcher also provided via email their unique QTip website link to the online Q-sorting activity. The researcher assured participants there was nothing they needed to do or bring in advance of this meeting.

ii. Condition of Instruction:

The researcher attended the Microsoft Teams meeting with the participant and verbally outlined the instructions for the study to support the written information previously shared with the participant (Appendix 16). The researcher used a script to ensure that the information shared remained consistent for each participant (Appendix 18). The participant was asked if they had any questions or needed further clarification before beginning the online Q-sorting activity.

iii. Completing the Q-sort:

The participant completed the online Q-sorting activity by dragging the statements onto the fixed-quasi-normal distribution grid according to their personal view (Figure 12). Statements that were considered 'more helpful' were configured toward the right and statements considered 'less helpful' were configured toward the left. Figure 12 shows the screen that participants were presented with when they clicked on their Q-sorting link. Figure 13 shows an example of a finished Q-sort.

The researcher released participants to turn off their video camera and audio while they completed the Q-sorting task. This was to mitigate feelings of being observed, as this is a draw-back of in person Q studies (Nazariadli et al., 2019). The researcher assured participants that they were available during

their administration of the Q-sort if they had any difficulties or needed to ask any further questions. Advised by Q research, participants were reassured that there was no time-pressure for completing the task and were asked to review, reflect, and make appropriate changes to their final configuration before informing the researcher that they had finished (den Brok et al., 2010).

iv. Completing the Follow-up Questionnaire:

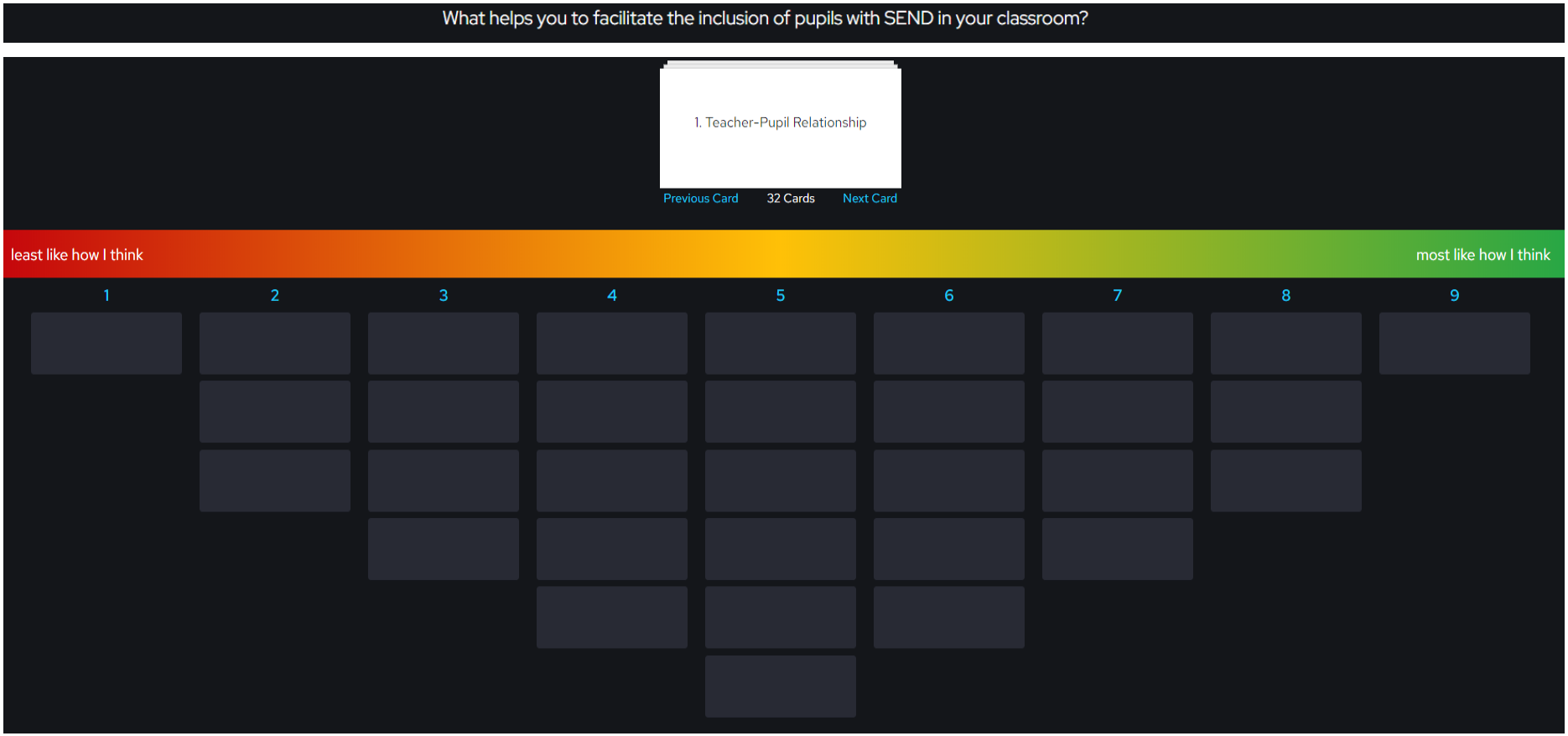
When the participant was happy with their final Q-sort configuration, they were asked to identify the column they felt most neutral about (zero-salience line) and reminded to click save and exit. The researcher then asked the participant several follow-up questions (Table 17). The researcher recorded the participant's answers to each of the questions and saved the document using their participant number to ensure anonymity. The researcher waited for the participant to pause (indicating they had nothing further to say) and read back their response to them to check they were happy with the answer before proceeding to the next question.

v. Debrief:

Finally, the participant was thanked for their time and asked if there was anything further, they wanted to ask, share, or add before ending the meeting. The participant was then emailed the debrief form (Appendix 19) and were informed that if they had any further questions or concerns, they could contact the researcher. On average the participation in the Q-sort and subsequent questionnaire was approximately 30 minutes.

Figure 12

A figure to show a screenshot of the Q-sorting task prior to completion.



Note: Statements have not yet been placed on the 9-point fixed normal-distribution grid. Participants were informed that the poles ranged from more helpful to less helpful. Screenshot taken from the program QTip.

Figure 13

A figure to show a screenshot example of the Q-sorting task after completion.

Note: All 32 statements are placed on the normal distribution grid and participants have rated which statement they feel most neutral about. Screenshot taken from the program QTip.

Table 17

A table to show the follow-up questionnaire used for the present study.

Participant Number	
Age	
Gender	
How did you train to become a teacher? *E.g., Teacher First, PGCE*	
How many years have you been teaching post-qualification?	
What year group do you currently teach?	
What county area do you currently teach?	
On a scale from 0-5, where 0 is not important and 5 is very important. ***How important is inclusion to you?*** *(please underline)*	*1* *2* *3* *4* *5* *Very low* *Low* *Medium* *High* *Very high*
How would you rate your level of ***confidence*** *with regards to the inclusion of pupils with SEND within the mainstream environment?* *(please underline)*	*1* *2* *3* *4* *5* *Very low* *Low* *Medium* *High* *Very high*
Which statements did you sort as ***most helpful*** *and* ***why?***	
Which statements did you sort as ***least helpful*** *and* ***why?***	
Are there any statements that you did not understand or did not make sense to you?	
Is there anything that you would have added to the Q-sort? E.g., statements that you felt were not included.	

3.12 Step Five- Factor Analysis & Interpretation

The final stage of Q research is to analyse and interpret the data collected. The researcher will analyse the quantitative data gathered (each participant's Q-sort arrangement) using by-person factor analysis. Factors that emerge will identify groups of participants that configured the Q-sort in a similar way (Watts & Stenner, 2005, 2012). This process is usually completed using a computer package such as PQMethod (Schmolck, 2021) and includes the following steps:

- *Data Input*

  The researcher manually uploads each participant's Q-sort configuration into a computer package to support the by-person factor analysis process.

- *Correlation Matrix*

  The data is correlated to establish the level of agreement or disagreement between them. The output is called a correlation matrix and identifies individual Q-sort configurations which were configured similarly. Q-sorts configured similarly are clustered together to form a "factor."

- *Factor extraction*

  Following the correlation matrix, factors can be extracted from the data using 'centroid analysis' or 'principal component analysis.' Centroid analysis is usually favoured, as it enables the researcher to use a more abductive approach (Small, 2011; Watts & Stenner, 2012). Q studies typically identify between 3 and 6 factors (Watts & Stenner, 2012).

- *Factor rotation*

  This step ensures that each participant is only associated with one factor, whilst also maintaining that the greatest amount of study variance can be explained with the fewest factors (Hallam, 2014). Researchers may complete this process manually or using an automated process that seeks the mathematical best factor solution (Watts & Stenner, 2012).

- *Factor arrays*

  Once this step has been achieved, the factors are analysed and turned into factor arrays. This provides a weighted average of all the individual Q-sorts that are loaded onto a specific factor (Plummer, 2012). Each factor array provides a summary Q-sort or "best fit" Q-sort

configuration, which represents the viewpoint of participants who configured their Q-sort in a similar way and loaded onto the same factor (Brown, 1993).

- *Factor interpretations*

  The last step of the data analysis utilises the factor arrays to produce a holistic summary or narrative for each viewpoint. The researcher may draw upon previous research and theories to support their interpretation of each factor array and will interweave qualitative data to provide a rich account for each factor that emerges (Cross, 2005; Stainton Rogers, 1995).

Details of the factors analysis and interpretation process for the present study will be outlined in the following chapter: Results. This is because it will be clearer to outline and rationalise each decision point alongside the results obtained by the present study.

3.13 Ethical Considerations

Ethical considerations were integral throughout this study. Several risks and considerations related to the present study can be viewed in Table 18 and were guided by the following legislation:

- The British Psychological Society Code of Human Research Ethics (BPS, 2014, 2021)
- The Health and Care Professional Council's Performance, Conduct and Ethics (HCPC, 2016)
- The University of Nottingham Code of Research Conduct and Ethics (University of Nottingham, 2023).

Importantly, the researcher first gained ethical approval from the University's Ethics Committee before proceeding with the study. The ethical approval letter can be viewed in Appendix 20 and research timeline can be viewed in Appendix 10.

Table 18

A table to show ethical risks considered for the present study.

Informed Consent	Before taking part in the study, participants were provided with detailed information about the proposed research *(Appendix 12)* outlining their right to withdraw and how the data will be gathered, used, anonymised, and protected. Participants will be given the opportunity to ask further questions, before completing a consent form *(Appendix 11)* to take part in the study.
Right to Withdraw	The right to withdraw at any point in the study will be explicitly communicated to participants before taking part in the study. It will be made clear that participant can choose to withdraw at any point in the study and if they do decide to withdraw, their data will be destroyed and removed from the research.
Confidentiality	Participant anonymity and confidentiality will be ensured using anonymised participant reference numbers. No names or other identifiable data (e.g., school name) will be used in the proposed research. Throughout the research process, data will be stored securely.
Minimising Harm	To ensure a safe environment for participants to share their views, the researcher will discuss with the participants an action plan for what they can do (e.g., taking a break, or withdrawing from the study) if they wish to stop at any time. Each participant will be provided with the researcher's contact details if they have any further questions and each participant will nominate a point of contact for support within their educational setting.
Debriefing	Time will be allocated to ensure that participants will be debriefed at the end of their involvement. The researcher will provide a debrief form *(Appendix 19)* that outlines details of the research rationale, implications, and contact details for further questions or support. The researcher will ensure that participants are aware that their data is a snapshot viewpoint in time and not a permanent view or personality trait.

3.14 Methodology Summary

This chapter has provided an overview of Q and how it has been carried out within the present study. The researcher has provided a rationale for why Q was believed to provide a valuable research approach to answering the research question: *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND?* The details of the analysis and results of this research will be outlined in the following section.

Chapter 4 – Results

4.1 Chapter Introduction

This chapter will provide a detailed overview of the data analysis. The aim of Q is to reduce the collection of individual perspectives within a P set (represented by individual Q-sort configurations), into factors that comprise the collective perspective (Watts & Stenner, 2012). To ensure transparency and coherency of the results, the researcher will provide an explanation of each step, present the findings, and justify the methods used to analyse the results. This chapter will progress through the following areas:

- Data Preparation & Input
- Correlation Matrix
- Factor Extraction
- Factor Rotation
- Factor Arrays
- Factor Interpretations
- Consensus Statements
- Non-significant Q-sort
- Additional Qualitative Information
- Summary of Results

In line with the social-constructionist perspective, the researcher expects that participants will construe this topic in multiple ways and aims to investigate the research question through participants' lenses (Cohen et al, 2018). The researcher also acknowledges their involvement and interpretation of the results, constructing meaning with the participants, and creating a shared understanding of the research topic (Mertens, 2005; Robson, 2016). In the interest of reflexivity and transparency, raw data and findings are presented throughout this section and in Appendix 28 to allow the reader to come to their own interpretations. The researcher included all the responses from each participant's post-sorting questionnaire.

4.2 Data Preparation & Input

Within the present study, the P set generated fourteen Q sorts. The researcher manually uploaded each participant's Q-sort configuration using the computer package KenQ Analysis Desktop Edition (KADE) software (URL: https://shawnbanasick.com) to support the by-person factor analysis (Banasick, 2019). This computer software was used because it was freely available, provided enhanced detail including a scree plot of eigenvalues and a multitude of downloadable Excel worksheets displaying various aspects of the data (Clausen et al., 2021). Following Q research guidance, each participant's number was coded using demographic details and can be viewed in Appendix 21 (Pritchard, 2021; Watts & Stenner, 2012). This was to ensure participant information could be incorporated into the final output.

4.3 Correlation Matrix

Using KADE, the data was correlated using the by-person factor analysis to establish the level of agreement or disagreement between each participant's Q-sort configuration. This process identifies individual Q-sort configurations which were configured similarly. Q-sorts that are clustered together form a factor. It is important to note that the correlation matrix reflects the relationship between each participant's configuration, not the relationship between each statement within the Q-sort (Taylor, 2016), and hence why it is called a '*by-person' factor analysis* (Stephenson, 1935).

4.4 Factor Extraction

4.4.1 Factor Extraction Overview

To support the reader's understanding of the factor extraction process, the researcher will first provide an explanation before outlining how it was applied to the present study. Following the correlation matrix, data can be extracted using 'Centroid Factor Analysis' (CFA) or 'Principal Component Analysis' (PCA). CFA is the oldest factor extraction technique and is usually favoured by Q researchers, as it provides an indeterminate number of factors and enables researchers to reconnoitre the data from different standpoints before deciding how many factors seem the most appropriate (Hallam, 2014; Small, 2011; Stephenson, 1953; Watts & Stenner, 2012). Instead, PCA uses a single, mathematical best solution to extract *'components',* and, thus, is not factor analysis (Watts & Stenner, 2012). Q literature cautions against PCA as it deprives Q researchers of the opportunity to explore the data using a more

abductive approach to data extraction (Watts & Stenner, 2012). However, the two methods produce very similar results (Harman, 1976; Kline, 1994).

Q research provides several guidelines to help Q researchers determine how many factors are appropriate to extract from the data. When first considering how many factors to extract, Brown's (1980) '*magic number seven'* rule is advised to avoid prematurely disregarding potentially valuable factors (Garbett, 2022; Watts & Stenner, 2012). Brown's rule advises Q researchers to generate and carefully examine seven unrotated factors to help them decide how many factors to retain for factor rotation. Secondly, Q research provides an approximate ratio guideline, suggesting that a factor should be extracted for every six Q-sorts in a study (Watts & Stenner, 2012). Finally, Q research advises completing a series of statistical tests to help determine how many factors to extract (Watts & Stenner, 2012). These include:

1. **Kaiser-Guttman Criterion** (Guttman, 1954; Kaiser, 1960)
   This statistical test suggests that only factors with an eigenvalue greater than one should be retained (Watts & Stenner, 2012).

2. **Brown's significant loading Q-sort** (Brown, 1980)
   This statistical test uses the following equation to identify the study's significance level: 2.58 x (1÷ √$no.of\ items\ in\ a\ Q\ set$). Thus, the significance level for the present study is *2.58 x(1÷ √32)* = **0.46**. If two or more Q-sorts load significantly onto a factor it is said to meet this statistical test.

3. **Humphrey's Rule** (Brown, 1980)
   This statistical test uses the following equation to identify the study's standard error: 1÷√$no.of\ items\ in\ Q{-}set$. Thus, the standard error for the present study is *1÷√32* = **0.18**. A factor is said to meet Humphrey's rule if the cross-product of its two highest loadings surpasses the standard error.

4. **Scree Test** (Cattell, 1966)
   This statistical test involves plotting the Eigenvalues of each factor (following PCA) and identifying at which point eigenvalue line in the scree plot graph changes or levels off (Watts & Stenner, 2012). This visual test aims to determine factors that make a major contribution from those that make a minor contribution. Thus, this test suggests that factors before the line graph levels off should be retained for subsequent analysis, whilst factors after this change should not (Ledesma et al., 2015; Watts & Stenner, 2012)

4.4.2 The Present Study: Factor Extraction

For the present study, seven unrotated factors were extracted from the intercorrelated matrix using CFA (Appendix 22). Guided by Brown's magic number seven rule, the researcher carefully examined seven factors before rotation. This reduced the possibility of disregarding potentially valuable factors. For transparency of results, Table 19 is an extract taken from KADE (following CFA) and provides information regarding each unrotated factor, including:

- *The commonalities with each Q-sort:* This indicates the degree to which a participant's Q-sort is correlated with each Factor. Hence, the higher the correlation matrix number, the higher the commonality with a particular factor.

- *The Eigenvalues:* This indicates each factor's *'statistical strength and explanatory power'* (Watts & Stenner, 2012, p. 195).

- *The explained variance:* This indicates the extent to which the factor explains the study variance. Thus, a higher percentage of 'explained variance' is desirable. Watts and Stenner (2012) argue that the final set of factors should account for as much factor variance as possible. It is argued that between 35% and 40% study variance or more is an acceptable factor solution (Hallam, 2014; Kline, 1994).

Q research advises scrutinising all unrotated factors to decipher which factors should be kept for further rotation and analysis (Brown, 1980; Watts & Stenner, 2012). Therefore, following the extraction of seven unrotated factors, the researcher completed a series of statistical tests to support the factor extraction process (Watts & Stenner, 2012). The details of these statistical tests are shown in Appendix 23 and a summary of the results are outlined in Table 20.

PCA was used to produce the scree plot graph and is displayed in Figure 14. This is because the scree test was intended for use with PCA rather than CFA (Watts & Stenner, 2012). In the interest of inter-rater reliability, the researcher showed the scree plot to two TEPs and an EP who were familiar and had experience with Q. All three peer researchers judged the eigenvalue line as changing after factor two. This aligned with the researcher's judgement and suggested that two factors should be extracted. Overall, the statistical tests suggest that between 1-3 factors should be retained for rotation, which aligned with Q research that suggests 1 factor for every 6 Q-sorts (Watts & Stenner, 2012).

Table 19

A table to show the data following a seven-factor extraction using centroid factor analysis.

Q-sort		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
1	1F43SD1N53	0.6121	0.2668	-0.3064	0.1593	-0.0775	0.0111	-0.1692
2	2F30SD0N53	0.6234	0.0669	-0.4242	0.1616	-0.0943	0.0152	-0.1667
3	2F28DE6L54	0.6008	0.1635	-0.3001	0.1103	-0.2585	0.0956	0.0207
4	2F27ST1N54	0.5573	0.2016	0.0681	0.0441	0.4378	0.231	-0.0793
5	2F23PG5C53	0.383	-0.1442	0.2829	0.0447	-0.2797	0.1127	-0.2285
6	2F28SD2N53	0.4761	-0.6657	0.1631	0.3156	-0.2337	0.079	-0.1886
7	2F24SD4N43	0.554	-0.4295	-0.0079	0.0938	0.3132	0.0938	0.2094
8	2F24PG0S52	0.6941	-0.1252	0.1788	0.0146	0.17	0.0207	0.0814
9	2F25ST2S43	0.629	0.3123	0.2226	0.1224	-0.145	0.0319	0.2736
10	2F26DE4N53	0.6324	-0.2072	-0.4864	0.22	0.2096	0.035	0.0796
11	1F22DE4N44	0.5919	0.1472	0.1923	0.0436	0.3374	0.1132	-0.3253
12	3F24DE4B43	0.3946	0.1143	0.3492	0.0887	-0.0014	0.0001	-0.0224
13	3F27PG1N43	0.7092	-0.0622	-0.1007	0.0089	-0.0524	0.0061	0.1703
14	2F49PG1N53	0.6976	0.2418	0.2312	0.0889	-0.2684	0.1034	0.3583
Eigenvalue		4.8882	1.0448	1.0159	0.2573	0.7869	0.1168	0.5463
Cumulative % explained variance		35	42	49	51	57	58	62

Note: This process was completed using KADE.

Figure 14

A figure to show the scree plot graph using principal component analysis.

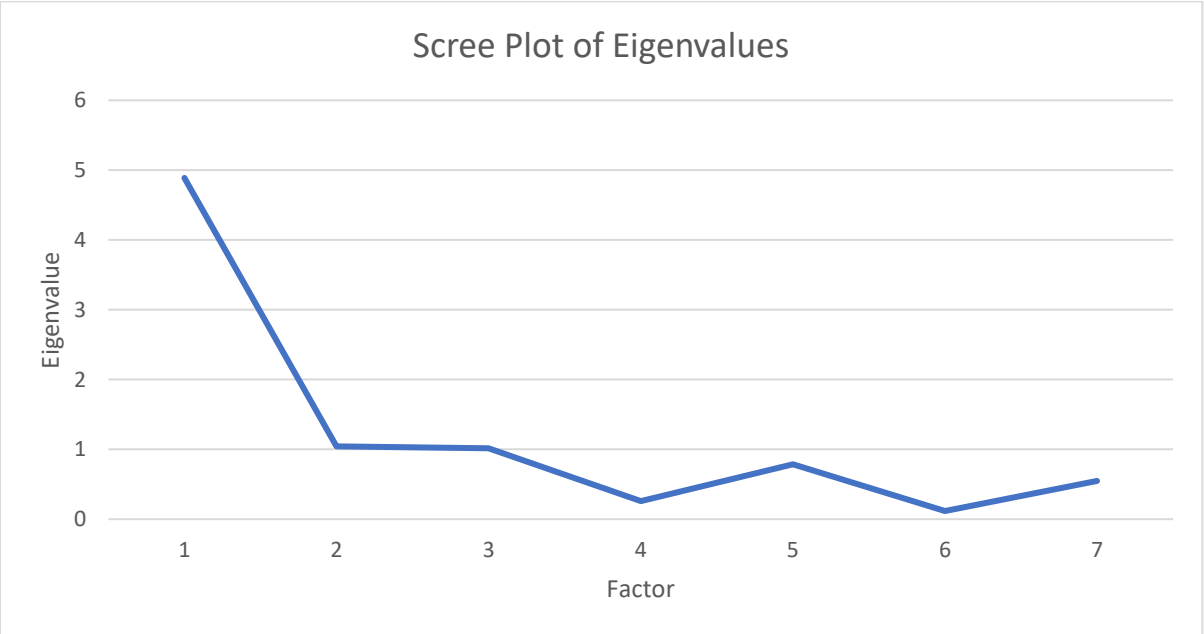


Table 20

A table to show the findings of four statistical tests to guide factor extraction.

Factor	*1. Kaiser-Guttman Criterion*	*2. Brown's Significant Loading Test*	*3. Humphrey's Rule*	*4. Scree Test*
1	Eigenvalue greater than 1 (4.89)	12 Q-sorts loaded significantly	Cross-product of two highest loadings (0.49) exceeds twice standard error (0.18)	Dramatic change in Eigenvalue line graph slope
2	Eigenvalue greater than 1 (1.04)	1 Q-sort loaded significantly	Cross-product of two highest loadings (0.29) exceeds standard error (0.18)	Eigenvalue line graph begins to level off
3	Eigenvalue greater than 1 (1.02)	1 Q-sort loaded significantly	Cross-product of two highest loadings (0.21) exceeds standard error (0.18)	Eigenvalue line graph plateaus
4	Eigenvalue less than 1 (0.26)	0 Q-sorts loaded significantly	Does not exceed standard error	Slight decrease in Eigenvalue line graph
5	Eigenvalue less than 1 (0.79)	0 Q-sorts loaded significantly	Does not exceed standard error	Slight decrease in Eigenvalue line graph
6	Eigenvalue less than 1 (0.12)	0 Q-sorts loaded significantly	Does not exceed standard error	Eigenvalue line graph plateaus
7	Eigenvalue less than 1 (0.55)	0 Q-sorts loaded significantly	Does not exceed standard error	Eigenvalue line graph levels off

Note: the statistical tests suggested that between 1-3 factors should be retained for rotation, as highlighted in the table.

To summarise the factor extraction section, the researcher used CFA to extract seven unrotated factors from the correlation matrix. The researcher applied four statistical tests to the CFA unrotated factor matrix to help identify how many factors to retain for further analysis and inform the best factor solution. These tests suggested retaining between 1-3 factors. As Q researchers warn against abandoning potentially valuable factors at this stage (Watts & Stenner, 2012; Garbett, 2022), the researcher retained the highest number of factors suggested (3).

4.5 Factor Rotation

This step ensures that each participant's Q sort is only associated with one factor, whilst also maintaining that the greatest amount of study variance can be explained with the fewest factors (Hallam, 2014). Q sorts that load onto more than one factor are described as *confounding Q-sorts*. Q sorts that do not load significantly onto any factors are described as *non-significant Q-sorts*. Factor rotation aims to explore and rotate different factor solutions to see which option loads the most Q-sorts onto only one factor (Small, 2011). Q research cautions against including confounding or non-significant Q-sorts in the construction of any factor estimates, as they may skew the data (Watts & Stenner, 2012).

Researchers may complete the factor rotation process manually or using varimax: an automated process that seeks the mathematical best factor solution (Watts & Stenner, 2012). Varimax rotation is more straightforward, transparent, and helpful for less experienced Q researchers (Watts & Stenner, 2012; Webler et al, 2009). Manual rotation involves rotating two factors at a time in any direction of size around their origin (Akhtar-Danesh & Mirza, 2017). Stephenson (1961) pioneered this technique and advised researchers to have in mind a theory or hypothesis to guide the manual rotation process (Akhtar-Danesh & Mirza, 2017). Many Q researchers use a combination of the two methods, beginning with varimax for transparency and then continuing with by-hand factor rotation to ensure as many Q-sorts as possible are loaded onto a factor (Hallam, 2014; Watts & Stenner, 2012).

4.5.1 Varimax Rotation

For the present study, three factors were initially selected for rotation using varimax (automated process which identifies the mathematical best solution). This is because three was the highest number of factors suggested by the statistical test process (Table 20) and the researcher was careful not to disregard potentially valuable factors too early in the process (Watts & Stenner, 2012). Section 4.4 explained the calculation used to determine the level of significance for a Q sort to load onto a factor

for the present study (0.46). Table 21 displays the varimax results from CFA (using KADE) and shows how each of the 13 out of the 14 Q-sorts loaded significantly (0.46) onto one of three factors with a cumulative explained variance of *49%.* Six Q-sorts loaded onto Factor 1, two Q-sorts loaded onto Factor 2 and five Q-sorts loaded onto Factor 3. This process identified one non-significant Q-sort (5) but no confounding Q-sorts.

Table 21
A table to show the three-factor solution after varimax rotation.

Q-sort Number	*Factor 1*	*Factor 2*	*Factor 3*
14	0.7024	0.1342	0.307
9	0.6856	0.051	0.2904
11	0.5666	0.1566	0.2473
12	0.5264	0.1425	0.0119
8	0.5026	0.426	0.2662
4	0.4903	0.0735	0.3298
5	*0.3617*	*0.3409*	*0.0012*
6	0.1294	0.8705	0.105
7	0.1655	0.6178	0.2828
10	0.0186	0.4	0.7533
2	0.1697	0.1564	0.7387
1	0.3241	-0.0016	0.6779
3	0.2732	0.0738	0.6392
13	0.3641	0.3267	0.4963
Explained Variance	18%	13%	20%

Note: This process was completed using KADE. Q-sort 5 is shaded in grey as it is the only non-significant Q-sort. All other Q-sorts met the significance level (0.46) for a single factor.

4.5.2 Manual Rotation

After completing varimax rotation, the researcher explored whether further by-hand rotation would result in the non-significant Q-sort (5) loading onto one of the three factors. Manual rotation involves rotating two factors in any direction of size around their origin. To maintain researcher integrity, this process was peer-reviewed and completed before any interpretation of the factors, so that the researcher had no prior knowledge that could affect the manual rotation process (Watts & Stenner, 2012).

Rotating factor 1 and 2 anti-clockwise did *not* significantly load Q-sort 5 onto factor 2. On contrary, rotating factor 1 and 2 clockwise by +22 degrees did load Q-sort 5 significantly onto factor 1 (0.46). However, this rotation resulted in Q-sort 13 loading significantly onto both factors 1 and 3 (confounding). The researcher continued to rotate factor 1 and 2 clockwise to see if Q-sort 5 could be loaded significantly without impacting other Q-sorts but did not identify a better factor solution. For transparency, this manual rotation process can be viewed in Appendix 24 - 25.

It was reasoned that the varimax rotation provided the most appropriate factor solution for the present study. The rationale for this decision was three-fold. Firstly, as Q research advises omitting both non-significant and confounding Q-sorts before producing factor arrays, the manual rotation process did not produce a more appropriate factor solution (it was not possible to load Q-sort 5 without consequently omitting Q-sort 13). Secondly, the researcher did not hold pre-determined theories or hypotheses to guide the manual rotation process as advised by Stephenson (1961). Thirdly, Watts and Stenner (2012) maintain that Varimax is the preferred method for researchers new to Q.

4.5.1 Alternative Factor Solutions

Before deciding on the final factor solution, the researcher also explored a 1-factor solution (Appendix 26) and a 2-factor solution (Appendix 27) as these were also suggested by the statistical tests (Table 19). A summary of the data can be viewed in Table 22 and shows how the 3-factor solution provided the highest number of Q-sorts loading onto a single factor. Additionally, Watts and Stenner (2012) argue that the final set of factors should account for as much factor variance as possible. The three-factor solution accounted for the highest study variance.

Table 22
A table to summarise the outcome of three different factor solutions following varimax.

		1 Factor Solution *(Appendix 26)*	***2 Factor Solution*** *(Appendix 27)*	***3 Factor Solution*** *(Table 21)*
Varimax	Significant Q-sorts	12	11	13
	Non-significant Q-sorts	2 (12 & 5)	2 (12 & 5)	1 (5)
	Confounding Q-sorts	0	1 (6)	0
	Explained Variance	35%	42%	49%

4.5.3 Final Factor Solution

Factor Rotation aims to identify the best factor solution: the highest number of Q sorts loading onto a single factor (Watts & Stenner, 2012). The researcher used varimax and manual rotation to identify the most appropriate factor solution for the present study. The three-factor solution displayed in Table 21 was reasoned to be the best fit for this data and met the following criteria:

- A cumulative explained variance of *49%* (Kline, 1994)
- All three factors have an Eigenvalue higher than 1 (Guttman, 1954; Kaiser, 1960)
- All three factors met Humphrey's rule (Brown, 1980)
- At least two significantly loading Q sorts on each factor (Watts & Stenner, 2012)
- A moderate correlation between each factor (Dancey & Reidy, 2020)
- No confounding Q-sorts and only 1 non-significant Q-sort, which will be omitted from the factor array (Watts & Stenner, 2012)

Additionally, Webler's (2009, p. 32) criteria are often used by Q-researchers to decipher the best factor solution. This criterion is outlined in Table 23 alongside the rationale for the final factor solution. The final factor solution can be viewed in Table 24, with the numbers in bold identifying how 13 out of the 14 Q sorts loaded significantly on one of the three factors. Section 4.4 explained how the significance level (±0.46) was calculated for the present study. Q-sort 5 was the only non-significant Q-sort and could not be loaded onto a single factor without disruption to other Q-sorts.

Table 23

A table to summarise and apply four criteria outlined by Webler et al (2009).

<table>
<tr><th>Criteria</th><th>Applied to the Present Study</th></tr>
<tr><td>Simplicity

Fewer factors are desirable to make the viewpoint easier to understand (whilst still retaining interesting information).</td><td>A 3-factor solution is within the guidelines of the statistical tests outlined in Section 4.4 and suggested ratio of 6 Q-sorts for every factor (Watts & Stenner, 2012). Additionally, each of the 3 factors had an eigenvalue higher than 1. Thus, it is important to retain interesting information.</td></tr>
<tr><td>Clarity

As many Q sorts as possible should load onto a single factor. Non-significant and confounding Q sorts should be minimised.</td><td>After varimax rotation, 13 Q sorts loaded significantly onto one of the three factors. 1 Q-sort was non-significant. Manually rotating factors 1 and 2 did not significantly load this Q-sort onto a single factor without interruption to other Q sorts.</td></tr>
<tr><td>Distinctiveness

Lower correlations between factors are desirable. The higher the correlation the less distinct the factor. Dancey and Reidy (1999) provide a guide to factor correlations:
• Weak (0.1 to 0.3)
• Moderate (0.4 to 0.6)
• Strong (0.7 to 0.9)

However, higher correlations may also be satisfactory (Webler et al, 2009). For example, participants may be moderately correlated because they agree on similar topics but disagree on a different topic. Thus, it is important to investigate their distinct overall view.</td><td>For transparency, the correlation between each of the three factors are stated below.

<table><tr><td></td><td>Factor 1</td><td>Factor 2</td><td>Factor 3</td></tr><tr><td>Factor 1</td><td>1</td><td>0.3329</td><td>0.5302</td></tr><tr><td>Factor 2</td><td>0.3329</td><td>1</td><td>0.4453</td></tr><tr><td>Factor 3</td><td>0.5302</td><td>0.4453</td><td>1</td></tr></table>
Using Dancey and Reidy's (1999) guide, the 3 factors are moderately correlated.

The factor arrays identify some similarities between the viewpoints (e.g. Factor 1 and 3 agree on what is most helpful and Factor 2 and 3 agree on what is least helpful) but each factor array displays an overall view that is distinct from one another (Webler et al, 2009).</td></tr>
<tr><td>Stability

Different factor solutions will identify certain groups of people who tend to cluster together. Maintaining cluster stability results in a good factor solution.</td><td>Whilst exploring different factor solutions, the researcher identified certain Q-sorts clustering together including:
• Q-sorts 9, 12 & 14
• Q-sorts 1, 2, 3 & 10
• Q-sort 6 & 7
These clusters are preserved in this factor solution.</td></tr>
</table>

Table 24

A table to show the final three factor solution.

Q-sort	*Participant*	*Factor 1*	*Factor 2*	*Factor 3*
1	1F43SD1N53	0.32	0	**0.68**
2	2F30SD0N53	0.17	0.16	**0.74**
3	2F28DE6L54	0.27	0.07	**0.64**
4	2F27ST1N54	**0.5**	0.07	0.33
5	2F23PG5C53	*0.36*	*0.34*	*0*
6	2F28SD2N53	0.13	**0.87**	0.11
7	2F24SD4N43	0.17	**0.62**	0.28
8	2F24PG0S52	**0.5**	0.43	0.27
9	2F25ST2S43	**0.69**	0.05	0.29
10	2F26DE4N53	0.02	0.4	**0.75**
11	1F22DE4N44	**0.57**	0.16	0.25
12	3F24DE4B43	**0.53**	0.14	0.02
13	3F27PG1N43	0.36	0.33	**0.5**
14	2F49PG1N53	**0.70**	0.13	0.30
Total significant Q-sort loadings for each factor		*6*	*2*	*5*
Eigenvalue		*4.89*	*1.04*	*1.02*
% Explained Variance		*18*	*12*	*19*

Note: Each loading has been rounded to two decimal places. Significantly loading Q-sorts are written in bold. The non-significant Q-sort is shaded grey.

4.6 Factor Arrays

The next stage of Q data analysis involves the production of factor arrays. This provides a weighted average of all the individual Q-set items (z scores) that are loaded onto a specific factor to produce a best-fit Q-sort configuration (Plummer, 2012; Van Exel & De Graaf, 2005). In other words, a summary Q sort for each factor to represent the shared viewpoint of participants who configured their Q-sort in a similar way (Brown, 1993). This is an important step in Q research as it represents the holistic nature of this methodology (Brown, 1980; Watts & Stenner, 2012). These factor arrays then support the researcher to interpret each viewpoint, which is the final stage of Q data analysis.

Watts and Stenner (2012) caution that information can be lost when it is reduced from continuous data (e.g., -1 – 2) to ordinal form (e.g., +4, +3, +2). For example, whilst all statements that were placed in the same column would receive the same rank value (e.g., +2), statements placed at the top of a particular column would contribute to a higher z score average than statements placed at the bottom of a particular column (e.g., 1.26 > 0.74). Thus, the researcher sought to draw upon a blend of z scores and arrays to guide their understanding of the data and interpret each factor (Watts & Stenner, 2012). In the interest of transparency, the z score for each Q-set statement is presented alongside the rank order and value in Table 25. Additionally, the next section (4.7) will visually display the three factor arrays in a fixed normal distribution grid alongside each statement's z score and factor interpretation.

Table 25

A table to show the z scores and rank order for each Q-set statement.

Statement	Factor 1			Factor 2			Factor 3		
	Z score	Rank Order	Rank Value	Z score	Rank Order	Rank Value	Z score	Rank Order	Rank Value
1. Teacher-pupil relationship	2.45	1	4	1.23	5	2	2.35	1	4
2. Staff training & opportunities for CPD	0.21	12	1	1.31	3	3	0.81	6	2
3. Policies & Systems that Promote Inclusion	-0.21	22	-1	0	16	0	0.26	12	1
4. Advice & Support from External Professionals	-0.04	17	0	1.31	4	3	0.19	14	0
5. Day-to-day Experience in the Classroom	0.07	14	0	2.11	1	4	0.93	4	3
6. Independent Research & Reading	-1.86	32	-4	-0.31	20	-1	0.73	7	2
7. Teacher Mentoring or Supervision	-0.21	21	-1	-0.75	26	-2	-.11	18	0
8. Teacher-Parent Communication	1.33	3	3	-0.31	21	-1	1.69	3	3
9. Listening to Pupils & Involving them in Dec	0.74	8	2	-0.56	22	-1	0.49	10	1
10. Positive Teacher Attitudes to Pupils with SEND	1.3	4	3	0.68	9	1	1.73	2	3
11. Knowledge & Skills to Adapt the Curriculum	-0.73	26	-2	1.36	2	3	0.55	9	1
12. Supportive School Env where Diversity Celeb	1.26	5	2	-0.63	23	-1	-0.18	19	0
13. Shared Strategies to Adapt the Curriculum	-0.55	24	-1	0.8	8	2	-0.25	22	-1
14. Reviewing & Revising Provision	-0.09	18	0	-0.87	27	-2	0.07	16	0
15. Extending What is Available for all Pupils	0.55	10	1	0.12	15	0	-0.22	20	-1
16. Observing Examples of Good Practice	0.04	15	0	0.56	10	1	-0.88	26	-2
17. Identifying Pupil Strengths	0.6	9	1	-0.24	19	0	0.93	5	2
18. Planning of Lessons (builds on prior know)	-1.65	30	-3	-0.68	24	-1	0.12	15	0
19. Time & Support Planning Inclusive Lessons	-0.18	20	-1	-0.68	25	-2	-0.36	23	-1
20. Effective Deployment of Teaching Assistants	1.37	2	3	1.11	7	2	-0.22	21	-1
21. Knowledge of Graduated Response to SEND	-1.45	29	-3	-0.12	17	0	-0.5	24	-1
22. Family Involvement	0.17	13	1	-1.23	28	-2	0.66	8	2
23. Knowledge about Special Educational Needs	0.32	11	1	0.19	14	0	-0.08	17	0
24. Accessing Support from the SENCo	0.76	7	2	1.19	6	2	0.23	13	1
25. Info from Prev CT about Strengths & Needs	-0.01	16	0	-1.31	29	-3	-1.44	30	-3
26. Prior Special School Experience	-1.84	31	-3	-2.11	32	-4	-2.27	32	-4
27. Collaborative Work Environment	-0.58	25	-2	0.39	11	1	-1.07	27	-2
28. Knowledge of Inclusion Policy	-1.24	28	-2	-0.12	18	0	-1.1	29	-3
29. Teacher Confidence (with inclusion)	0.87	6	2	0.24	13	1	-0.72	25	-2
30. SLT support Promoting Inclusion	-0.18	19	0	-1.67	31	-3	-1.66	31	-3
31. Open to Learn & Improve your Practice	-0.45	23	-1	-1.31	30	-3	0.39	11	1
32. Informal support & guidance from Colleague	-0.8	27	-2	0.31	12	1	-1.09	28	-2

Note: For each factor, the four highest ranked statements have been highlighted in green and the four lowest ranked statements have been highlighted in red.

4.7 Factor Interpretations

The final step of data analysis within Q involves the interpretation of each factor. This step utilises the factor arrays to produce a holistic summary or narrative for each viewpoint (Webler et al., 2009). Although there is no set way to complete factor interpretation, Watts and Stenner (2012) stress the importance of utilising a systematic method to support the transparent and consistent interpretation of findings and mitigate researcher bias. Q researchers (Brown, 1980; Watts & Stenner, 2012; Webler et al., 2009) advise interpreting each factor's:

- *pole statements* (ranked the highest or lowest)
- *distinguishing statements* (ranked in a significantly different way to all other factors)
- *consensus statements* (ranked in a significantly similar way to all other factors)

Recommended by Watts and Stenner (2012), crib sheets were generated for each factor array to identify the following information:

- The highest ranked statements (+4 / highest z score) – *pole statements.*
- The lowest ranked statements (-4 / lowest z score) – *pole statements.*
- The statements ranked significantly higher than any other factor – *distinguishing statements.*
- The statements ranked significantly lower than any other factor – *distinguishing statements.*
- Any additional statements that provide interesting or useful information.
- Demographic information of the participants who loaded significantly onto that factor.

For transparency, the crib sheets for each factor array can be found in Appendix 28. The viewpoints interpreted from the three factors will now be explained alongside demographic information and qualitative findings that were collected from the post-sorting questionnaire (Table 17). Hereafter, the term 'viewpoint' will replace the term 'factor', whereby factor 1 will become Viewpoint 1 and so on. The structure will be as follows for each viewpoint:

a) demographic information
b) factor array
c) qualitative interpretation
d) viewpoint summary

It is important to note that all participants were female, meaning this piece of demographic information will be consistent for all three viewpoints. The three viewpoints will now be outlined.

4.7.1 Viewpoint 1

Viewpoint 1: Demographic Information

Six participants' Q-sort arrangements contributed to this viewpoint. A summary of their demographic details can be viewed in Table 26. Participants taught in the following areas: Nottinghamshire, Nottingham, Sheffield, and Bradford. The average age of viewpoint 1 participants was 28.8 years, which is equivalent to the average age of the P set (28.6 years). Participant's teacher training route included: Primary Education Degree, School Centred Initial Teacher Training (SCITT) and Post Graduate Certificate of Education (PGCE). On average participants were in their 2nd year of teaching post qualification, which is also the same as the average years teaching of the P set (2 years). The participants who made up this viewpoint taught the following year groups: reception, Y1, Y2 and Y4.

On average, these participants placed the zero-salience line at -2.3 on the fixed normal distribution grid, which was similar to the P set average (-2.5). This implies that they found most of the statements helpful in terms of inclusion of pupils with SEND, with approximately 4 out of 32 statements considered less helpful. On average, these participants rated how important they felt inclusion was to them as 4.5 and their confidence with including pupils with SEND as 3.2. This was also similar to the overall P set average (importance: 4.6; confidence 3).

Table 26
A table to show demographic information for viewpoint 1 participants.

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*
14	0.70	2	49	PGCE	Y1	Nottinghamshire	5	3
9	0.69	2	25	SCITT	Y2	Sheffield	4	3
11	0.57	1	22	Degree	Y4	Nottinghamshire	4	4
12	0.53	3	24	Degree	Y4	Bradford	4	3
8	0.5	2	24	PGCE	Reception	Sheffield	5	2
4	0.5	2	27	SCITT	Y1	Nottingham	5	4

Viewpoint 1: Factor Array

The factor array for viewpoint 1 is visually displayed in Figure 15 and provides information about consensus and distinguishing statements. Additionally, the average zero-salience line has been indicated with an arow. For transparency, Table 27 numerically outlines each statement's z score, and rank. Table 28 summarises the distinguishing statements for Viewpoint 1 in comparison to the other two viewpoints. The crib sheet is outlined in Appendix 28.

Figure 15

A figure to show the composite Q-sort for viewpoint 1.

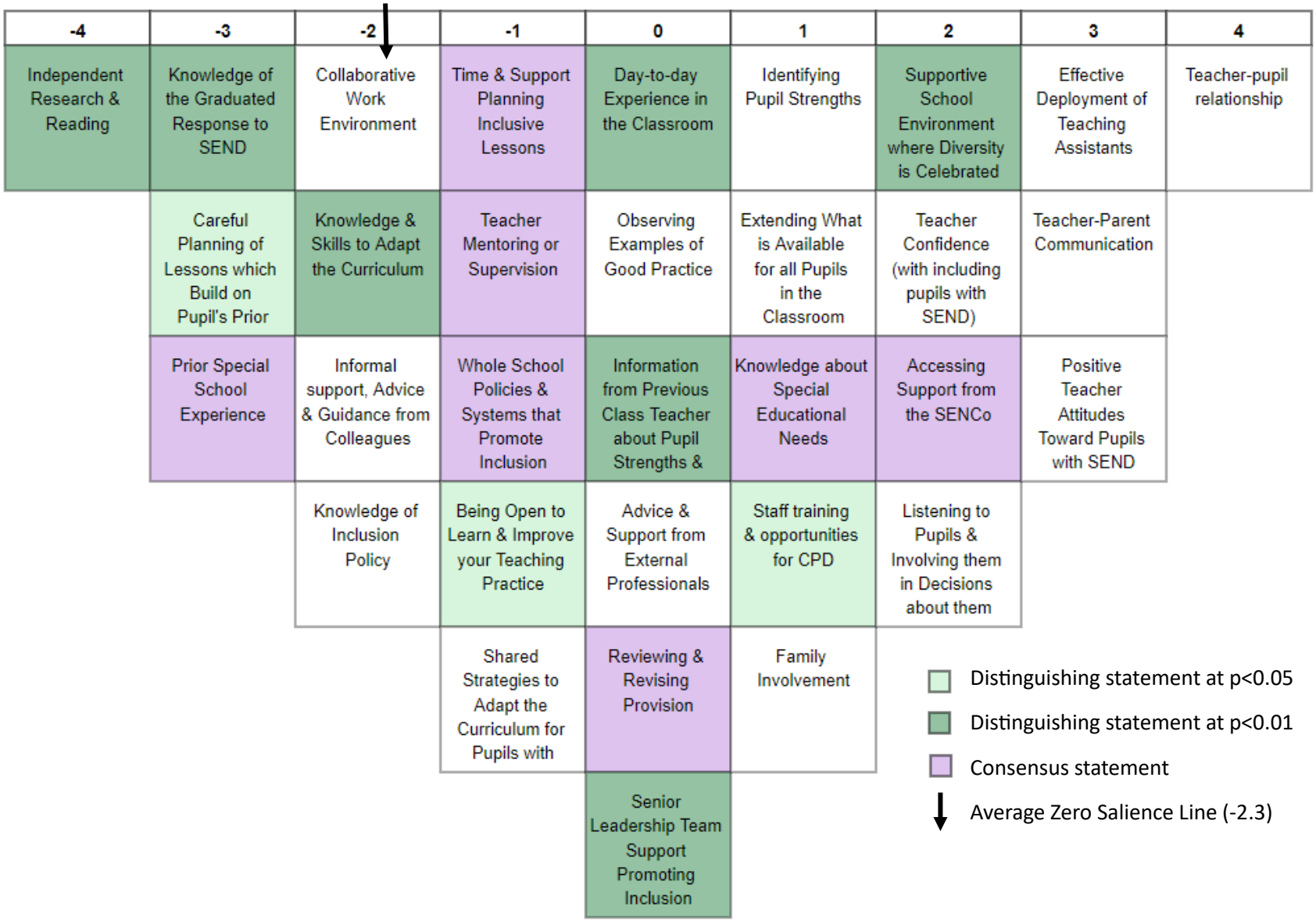


Table 27

A table to show the factor array for viewpoint 1 (average z score and rank)

Statement		Rank	Z score
1	Teacher-pupil relationship	4	2.449
20	Effective Deployment of Teaching Assistants	3	1.37
8	Teacher-Parent Communication	3	1.326
10	Positive Teacher Attitudes Toward Pupils with SEND	3	1.3
12	Supportive School Environment where Diversity is Celebrated	2	1.264
29	Teacher Confidence (with including pupils with SEND)	2	0.872
24	Accessing Support from the SENCo	2	0.76
9	Listening to Pupils & Involving them in Decisions about them	2	0.738
17	Identifying Pupil Strengths	1	0.6
15	Extending What is Available for all Pupils in the Classroom	1	0.553
23	Knowledge about Special Educational Needs	1	0.324
2	Staff training & opportunities for CPD	1	0.209
22	Family Involvement	1	0.165
5	Day-to-day Experience in the Classroom	0	0.069
16	Observing Examples of Good Practice	0	0.037
25	Information from Previous Class Teacher about Pupil Strengths & Needs	0	-0.006
4	Advice & Support from External Professionals	0	-0.04
14	Reviewing & Revising Provision	0	-0.086
30	Senior Leadership Team Support Promoting Inclusion	0	-0.175
19	Time & Support Planning Inclusive Lessons	-1	-0.176
7	Teacher Mentoring or Supervision	-1	-0.205
3	Whole School Policies & Systems that Promote Inclusion	-1	-0.207
31	Being Open to Learn & Improve your Teaching Practice	-1	-0.45
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	-1	-0.552
27	Collaborative Work Environment	-2	-0.582
11	Knowledge & Skills to Adapt the Curriculum	-2	-0.729
32	Informal support, Advice & Guidance from Colleagues	-2	-0.795
28	Knowledge of Inclusion Policy	-2	-1.243
21	Knowledge of the Graduated Response to SEND	-3	-1.445
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-3	-1.648
26	Prior Special School Experience	-3	-1.841
6	Independent Research & Reading	-4	-1.857

Table 28

A table to show the distinguishing statements for Viewpoint 1

Distinguishing Statements			Rank	Z score
*	12	Supportive School Environment where Diversity is Celebrated	+2	1.26
	2	Staff training & opportunities for CPD	+1	0.21
*	5	Day-to-day Experience in the Classroom	0	0.07
*	25	Information from Previous Class Teacher about Pupil Strengths & Needs	0	-0.01
*	30	Senior Leadership Team Support Promoting Inclusion	0	-0.18
	31	Being Open to Learn & Improve your Teaching Practice	-1	-0.45
*	11	Knowledge & Skills to Adapt the Curriculum	-2	-0.73
*	21	Knowledge of the Graduated Response to SEND	-3	-1.45
	18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-3	-1.65
*	6	Independent Research & Reading	-4	-1.857

Note: The significance level is p <0.05. The Asterix (*) indicates significance at p<0.01.

Viewpoint 1: Qualitative interpretation

Teacher-pupil relationships were regarded as the most helpful factor in facilitating the inclusion of pupils with SEND in mainstream classrooms (statement 1: rank +4). This was ranked most helpful (+4) by four out of the six participants who comprised this viewpoint and was ranked highly by the other two participants (+3), behind the statement 'teacher confidence' (Participant 11) and 'support planning inclusive lessons' (Participant 12).

> *"Teacher-pupil relationships are crucial… because you don't understand a diagnosis, you understand a child. Each child is so different and unique, knowing what they're like and what they would respond well to. I have to bond with a child for their sake and for my sake. You want to do better for that child if you know them and you love them and they want to do better for you if they feel loved and happy."*
>
> (Participant 8)

> *"Because it helps you know what works and doesn't work for that particular child and helps you to work together."*
>
> (Participant 9)

"I think it's the most important thing for any pupil, if they're SEND or not… if you get that [teacher pupil relationships] right it helps everything else. If they're comfortable and trust you and know you – they're much more ready to learn."

(Participant 14)

"If you don't have that [teacher-pupil relationships] you have nothing to go off. If they don't know you, and you don't know what they're like… especially for pupils with SEND, it can be an environment that is more difficult."

(Participant 4)

Participants also felt it was important to have a positive teacher attitude towards pupils with SEND (statement 10: rank +3) and teacher confidence with including pupils with SEND (statement 29: rank +2).

"You need to be confident in your own practice to facilitate effective inclusion. If you don't really know how to support them, how are they supposed to feel confident in themselves that they can access things? It's really important that you show them that you believe in them and they can do it."
(Participant 11)

"You want to do better for that child if you know them and you love them and they want to do better for you if they feel loved and happy."
(Participant 8)

Further teacher characteristics believed to be helpful in facilitating inclusion include:

- Listening to pupils and involving them in decisions about them (statement 9: rank +2)
- Identifying pupil strengths (statement 17: rank +1)
- Extending what is available for all pupils in the classroom (statement 15: rank +1)
- Knowledge about special educational needs (statement 23: rank +1)

In terms of home factors, developing effective teacher-parent communication (statement 8: rank +3) and family involvement (statement 22: rank +1) helped participants to facilitate inclusion of pupils with SEND. With regards to school factors, participants who formed this viewpoint felt the following factors helped them to facilitate the inclusion of pupils with SEND in their classroom:

- Effective deployment of Teaching Assistant (statement 20: rank +3)
- Accessing support from the SENCo (statement 24: rank +2)
- Supportive school environment where diversity is celebrated (statement 12: rank +2)
- Staff training and opportunities for CPD (statement 2: rank +1)

Areas that were considered less helpful for the inclusion of pupils with SEND were:

- Independent reading and research (statement 6: rank -4)

"I personally find it really hard to learn this way."

(Participant 8)

- Knowledge of the graduated approach to SEND (statement 21: rank -3)

"I don't know what this is so it's not been helpful so far…"

(Participant 9)

- Prior special school experience (statement 26: rank -3)

"I don't have any [prior special school experience] and I don't think a lot of mainstream teachers do. I don't think that's essential".

(Participant 11)

- Careful planning of lessons which build on pupil's prior knowledge (statement 18: rank -3)

"That's not my biggest concern for SEND, more my main teaching concern. I think this is less important for me in terms of inclusion of pupils with SEND."

(Participant 4)

Viewpoint One Summary

Developing trusting teacher-pupil relationships where children feel safe and understood is extremely helpful for the inclusion of pupils with SEND in mainstream classrooms. It is important that the teacher knows what works and doesn't work for each child and includes them in decisions about them. It is important to involve the child's family and have good communication with parents / carers. SENCo and TA support is also considered helpful, as well as training and a school environment where diversity is celebrated. This will now be referred to as viewpoint one (Appendix 29).

4.7.2 Viewpoint 2

Viewpoint 2: Demographic Information

Two participants loaded onto factor 2 and contributed to this viewpoint. A summary of their demographic details can be viewed in Table 29. Interestingly, both participant's route into teaching was 'schools direct', both were in their second year of teaching, and both were from Nottinghamshire. Their average age was 26 years, which is slightly lower than the average age of the overall P set (28.6 years). The participants taught in Y2 and Y4.

On average, participants placed the zero-salience line at 0 on the fixed normal distribution grid, which was higher than the average for the P set (-2.5). This implies that they found around half of the statements helpful in terms of inclusion of pupils with SEND. On average, these participants rated how important they felt inclusion was to them as 4.5 and their confidence with including pupils with SEND as 3, which was similar to the overall P set average (importance: 4.6; confidence 3).

Table 29

A table to show the demographic information for viewpoint 2 participants.

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*
6	0.87	2	28	Schools Direct	Y2	Nottinghamshire	5	3
7	0.62	2	24	Schools Direct	Y4	Nottinghamshire	4	3

Viewpoint 2: Factor Array

The factor array for viewpoint 2 is visually displayed in Figure 16 and provides information about consensus and distinguishing statements. Additionally, the average zero-salience line has been indicated with an arrow. For transparency, Table 30 numerically outlines each statement's z score, and rank. Table 31 summarises the distinguishing statements for viewpoint 2 in comparison to the other two viewpoints. The crib sheet is outlined in Appendix 28.

Figure 16

A figure to show the composite Q-sort for viewpoint 2.

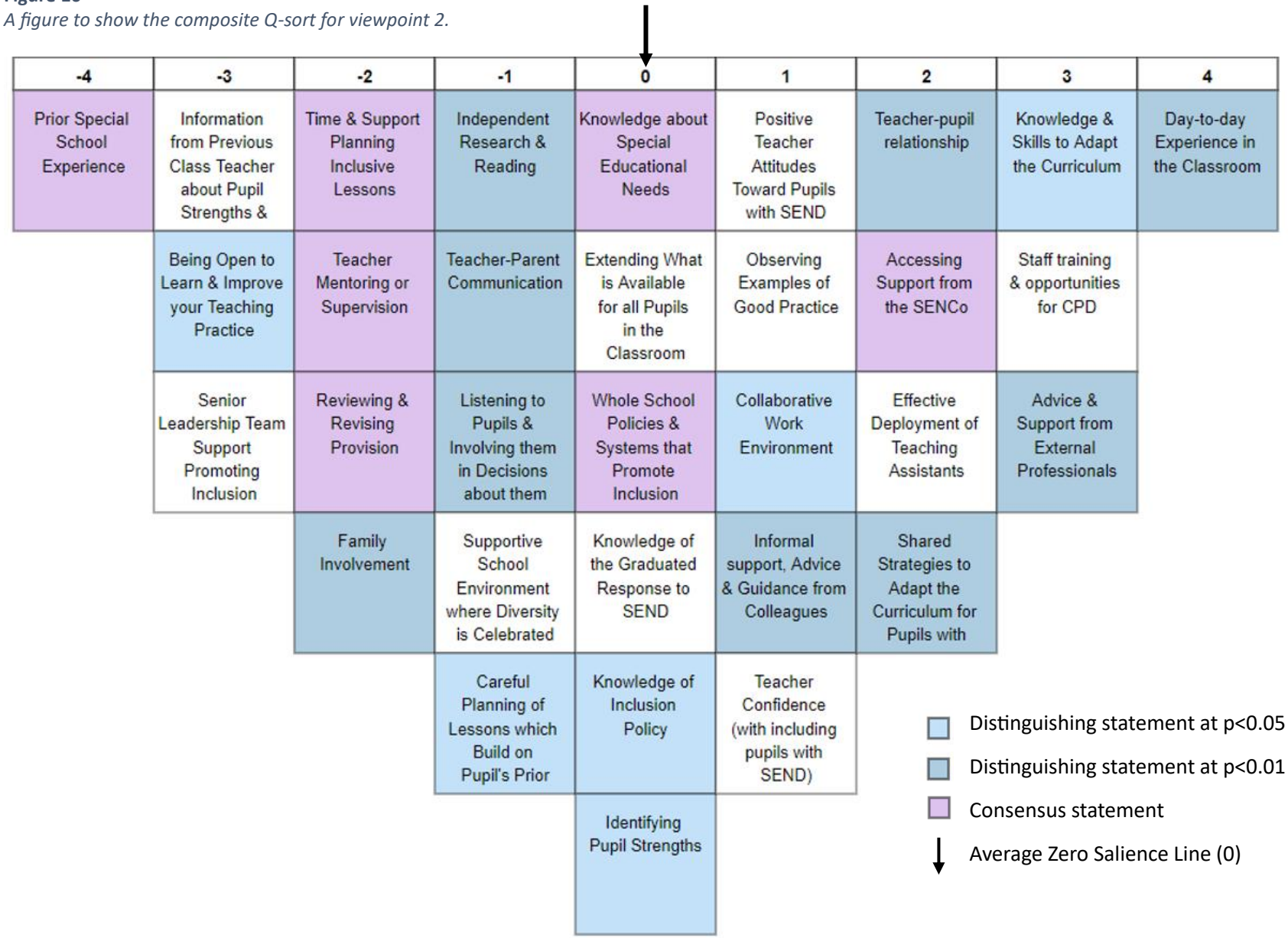


Table 30

A table to show the factor array for viewpoint 2 (average z score and rank).

Statement		Rank	Z score
5	Day-to-day Experience in the Classroom	4	2.106
11	Knowledge & Skills to Adapt the Curriculum	3	1.355
2	Staff training & opportunities for CPD	3	1.306
4	Advice & Support from External Professionals	3	1.306
1	Teacher-pupil relationship	2	1.234
24	Accessing Support from the SENCo	2	1.185
20	Effective Deployment of Teaching Assistants	2	1.113
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	2	0.799
10	Positive Teacher Attitudes Toward Pupils with SEND	1	0.678
16	Observing Examples of Good Practice	1	0.556
27	Collaborative Work Environment	1	0.386
32	Informal support, Advice & Guidance from Colleagues	1	0.314
29	Teacher Confidence (with including pupils with SEND)	1	0.242
23	Knowledge about Special Educational Needs	0	0.193
15	Extending What is Available for all Pupils in the Classroom	0	0.121
3	Whole School Policies & Systems that Promote Inclusion	0	0
21	Knowledge of the Graduated Response to SEND	0	-0.121
28	Knowledge of Inclusion Policy	0	-0.121
17	Identifying Pupil Strengths	0	-0.242
6	Independent Research & Reading	-1	-0.314
8	Teacher-Parent Communication	-1	-0.314
9	Listening to Pupils & Involving them in Decisions about them	-1	-0.556
12	Supportive School Environment where Diversity is Celebrated	-1	-0.629
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-1	-0.678
19	Time & Support Planning Inclusive Lessons	-2	-0.678
7	Teacher Mentoring or Supervision	-2	-0.75
14	Reviewing & Revising Provision	-2	-0.871
22	Family Involvement	-2	-1.234
25	Information from Previous Class Teacher about Pupil Strengths & Needs	-3	-1.306
31	Being Open to Learn & Improve your Teaching Practice	-3	-1.306
30	Senior Leadership Team Support Promoting Inclusion	-3	-1.669
26	Prior Special School Experience	-4	-2.106

Table 31

A table to show the distinguishing statements for viewpoint 2.

Distinguishing Statements			Rank	Z score
*	5	Day-to-day Experience in the Classroom	+4	2.11
	11	Knowledge & Skills to Adapt the Curriculum	+3	1.36
*	4	Advice & Support from External Professionals	+3	1.31
*	1	Teacher-pupil relationship	+2	1.23
*	13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	+2	0.8
	27	Collaborative Work Environment	+1	0.39
*	32	Informal support, Advice & Guidance from Colleagues	+1	0.31
	28	Knowledge of Inclusion Policy	0	-0.12
	17	Identifying Pupil Strengths	0	-0.24
*	6	Independent Research & Reading	-1	-0.31
*	8	Teacher-Parent Communication	-1	-0.31
*	9	Listening to Pupils & Involving them in Decisions about them	-1	-0.56
	18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-1	-0.68
*	22	Family Involvement	-2	-1.23
	31	Being Open to Learn & Improve your Teaching Practice	-3	-1.31

Note: The significance level is p <0.05. The Asterix (*) indicates significance at p<0.01.

Viewpoint 2: Qualitative Interpretation

Day-to-day experience in the classroom was the most helpful statement for participants who comprised this viewpoint (statement 5: rank +4). Qualitative findings provided further information:

> *"I think learning through experience has been so important for my practice, you have training and guidance but getting to know children as individuals and adapting things that work for them - the experience is so important."*
>
> (Participant 6)

Participants also felt it was important to have knowledge and skills to adapt the curriculum (statement 10: rank +3) and shared strategies to differentiate the curriculum for pupils with SEND (statement 13: rank +2).

"Actually knowing what you're teaching and how best to adapt that to the children - that's what helps them to access the learning."

(Participant 7)

Participants acknowledged the importance of colleague / professional support and training. Participant 6 shared *"I've also found colleagues' advice so important and monumental… The SENCo has been brilliant. Really helpful to understanding individual needs of children… my practice has become so much more inclusive because of the support I've had around me."* However, Participant 7 made the distinction between professionals that have knowledge and experience with SEND (such as EPs and the SENCo) and other colleagues. She shared how a collaborative working environment and informal advice and guidance from colleagues was "*a nice thing but haven't found any support with that. My colleagues don't feel confident in this area [inclusion of SEND] so it's not been helpful but maybe if I was surrounded my colleagues who felt more confident, then this would be different… A lot of it depends on what the environment is like."*

The following school factors were viewed as helpful:

- Staff training and opportunities for CPD (statement 2: rank +3)
- Advice and support from external professionals (statement 4: rank +3)
- Accessing support from the SENCo (statement 24: rank +2)
- Effective deployment of teaching assistants (statement 20: rank +2)

Finally, teacher-pupil relationships were viewed as helpful in facilitating the inclusion of pupils with SEND in mainstream classrooms (statement 1: rank 2).

"…getting to know children as individuals and adapting things that work for them."

(Participant 6)

Areas that were considered less helpful for the inclusion of pupils with SEND were:

- Prior special school experience (statement 26: rank -4).

  "I didn't have this [special school experience] and I don't think it was essential"

  (Participant 6).

- Information from previous teacher about pupil strengths and needs (statement 25: rank -3).

- Senior Leadership Team support promoting inclusion (statement 30: rank -3)

- Being open to learn and improve your teaching practice (statement 31: rank -3)

It is interesting that Viewpoint 2 do not appear to find statement 25 (information from previous class teacher) or 30 (SLT promoting inclusion) helpful for the inclusion of pupils with SEND, as qualiquantological data indicates that they value colleague support, advice, and expertise (statement 24, 4, 20).

Viewpoint Two Summary

Day-to-day experience in the classroom was considered most valuable for these participants, learning what facilitates inclusion for each individual child through experience. Alongside experience, knowledge, and skills to adapt the curriculum was considered valuable for the inclusion of pupils with SEND as well as knowing what works or doesn't work for each child. Participants highlighted the importance of staff training and drawing upon the knowledge and expertise of professionals, and experienced colleagues (particularly the SENCo) in facilitating the inclusion of pupils with SEND. This will now be referred to as viewpoint two (Appendix 29).

4.7.3 Viewpoint 3

Viewpoint 3: Demographic Information

Five participants loaded onto factor 3 and contributed to this viewpoint. A summary of their demographic details can be viewed in Table 32. Participants taught in Nottinghamshire and Leicester. The average age of these participants is 30.8 years, which is slightly higher than the average age of the P set (28.6 years). Participant's teacher training route included: Primary Education Degree, School Direct and PGCE. On average participants were in their 2nd year of teaching post qualification, which is the same as the average years teaching of the P set (2 years). The participants who made up this viewpoint taught the following year groups: Reception, Y1, Y4 and a mixed key stage 2 class.

On average, these participants placed the zero-salience line at -2.2 on the fixed normal distribution grid average, which was like the average for the P set (-2.5). On average, these participants rated how important they felt inclusion was to them as 4.8 and their confidence with including pupils with SEND as 3.4, similar to the overall P set average (importance: 4.6; confidence 3).

Table 32
A table to show the demographic information for viewpoint 3 participants.

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*
10	0.75	2	26	Degree	Y4	Nottinghamshire	5	4
2	0.74	2	30	Schools Direct	Reception	Nottinghamshire	5	3
1	0.68	1	43	Schools Direct	Y1	Nottinghamshire	5	3
3	0.64	2	28	Degree	KS2	Leicester	5	4
13	0.5	3	27	PGCE	Y1	Nottinghamshire	4	3

Viewpoint 3: Factor Array

The factor array for viewpoint 3 is visually displayed in Figure 17 and provides information about consensus and distinguishing statements. Additionally, the average zero-salience line has been indicated with an arow. For transparency, Table 33 numerically outlines each statement's z score, and rank. Table 34 summarises the distinguishing statements for Viewpoint 3 in comparison to the other two viewpoints. The crib sheet is outlined in Appendix 28.

Figure 17

A figure to show the composite Q-sort for viewpoint 3.

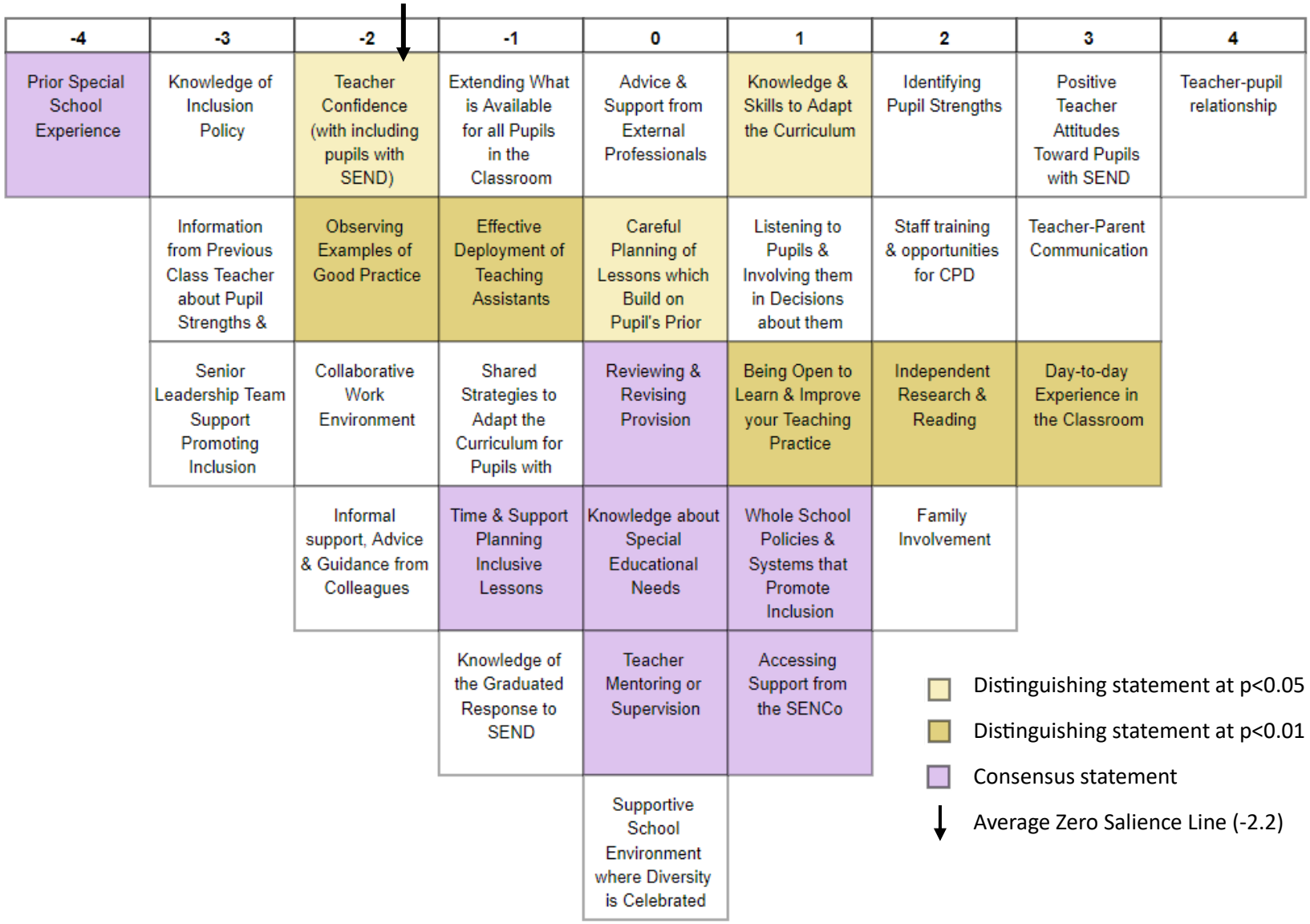


Table 33

A table to show the factor array for viewpoint 3 (average z score and rank).

Statement		Rank	Z score
1	Teacher-pupil relationship	4	2.354
10	Positive Teacher Attitudes Toward Pupils with SEND	3	1.734
8	Teacher-Parent Communication	3	1.687
5	Day-to-day Experience in the Classroom	3	0.933
17	Identifying Pupil Strengths	2	0.929
2	Staff training & opportunities for CPD	2	0.807
6	Independent Research & Reading	2	0.73
22	Family Involvement	2	0.659
11	Knowledge & Skills to Adapt the Curriculum	1	0.55
9	Listening to Pupils & Involving them in Decisions about them	1	0.488
31	Being Open to Learn & Improve your Teaching Practice	1	0.391
3	Whole School Policies & Systems that Promote Inclusion	1	0.258
24	Accessing Support from the SENCo	1	0.234
4	Advice & Support from External Professionals	0	0.192
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	0	0.116
14	Reviewing & Revising Provision	0	0.069
23	Knowledge about Special Educational Needs	0	-0.082
7	Teacher Mentoring or Supervision	0	-0.105
12	Supportive School Environment where Diversity is Celebrated	0	-0.175
15	Extending What is Available for all Pupils in the Classroom	-1	-0.217
20	Effective Deployment of Teaching Assistants	-1	-0.224
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	-1	-0.245
19	Time & Support Planning Inclusive Lessons	-1	-0.355
21	Knowledge of the Graduated Response to SEND	-1	-0.503
29	Teacher Confidence (with including pupils with SEND)	-2	-0.717
16	Observing Examples of Good Practice	-2	-0.88
27	Collaborative Work Environment	-2	-1.073
32	Informal support, Advice & Guidance from Colleagues	-2	-1.086
28	Knowledge of Inclusion Policy	-3	-1.096
25	Info from Previous Class Teacher about Pupil Strengths & Needs	-3	-1.443
30	Senior Leadership Team Support Promoting Inclusion	-3	-1.664
26	Prior Special School Experience	-4	-2.265

Table 34

A table to show the distinguishing statements for viewpoint 2.

Distinguishing Statements			Rank	Z score
*	5	Day-to-day Experience in the Classroom	+3	0.93
*	6	Independent Research & Reading	+2	0.73
	11	Knowledge & Skills to Adapt the Curriculum	+1	0.55
*	31	Being Open to Learn & Improve your Teaching Practice	+1	0.39
	18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	0	0.12
*	20	Effective Deployment of Teaching Assistants	-1	-0.22
	29	Teacher Confidence (with including pupils with SEND)	-2	-0.72
*	16	Observing Examples of Good Practice	-2	-0.88

Note: The significance level is p <0.05. The Asterix (*) indicates significance at p<0.01.

Viewpoint 3: Qualitative interpretation

Teacher-pupil relationships was regarded as the most helpful factor in facilitating the inclusion of pupils with SEND in mainstream classrooms (statement 1: rank +4). This was the same as viewpoint 1. Teacher-pupil relationships were viewed as most helpful by four out of the five participants who comprised this viewpoint, with many sharing personal experiences to demonstrate the importance of building a relationship with children. One participant ranked '*listening to pupils and involving them in decisions about them'* (+4) as most helpful, closely followed by *'teacher-pupil relationships'* (+3). They clarified in their post-sorting questionnaire how important relationships are to their practice and how listening to pupils and involving them in decisions helps them to facilitate the inclusion of pupils with SEND. Further qualitative findings related teacher-pupil relationships include:

> *"If I didn't know those children, I wouldn't be able to plan effective learning based on what they can do. Thinking about a specific child I have taught… without a relationship with him, you can have more arguments because you don't know them well - it feels more like a battle. I'm better able to adapt provision because I know what they're like."*
>
> (Participant 2)

> *"I think our relationship made more of an impact on her progress than any other factor."*
>
> (Participant 9)

"*Relationships [with children and their parents] are all really important to me and my practice… It's so important to build relationships with them and ask them what they would like to achieve and then they achieve more because they're on board too.*"

(Participant 1)

"Children need to feel safe in my classroom. I know their needs and their strengths and what they need support with. It's really important that I know them, and they know me."

(Participant 3)

"Before you even start trying to teach children you need to have that relationship as the foundation… Thinking about a little boy I've had this year, sometimes it can be a challenge, the relationship we have with each other is the most helpful thing to supporting his learning and his work. You can advocate for their views if you know them. The fact that he trusts me, and we have that understanding between us, he needs that reassurance."

(Participant 13)

Participants also felt it was important to have a positive teacher attitude toward pupils with SEND (statement 10: rank +3), identifying pupil strengths (statement 17: rank +2), and day-to-day experiences in the classroom (statement 5: rank +3).

"*It's so important to involve them [pupils with SEND] in decisions about them. Without involving them and just telling them what they're doing, we won't get the desired outcomes and that's come from experience in the past. They achieve a lot more if you involve them."*

(Participant 1)

Referring to day to day experience: *"Thinking about a little boy I've had this year…"*

(Participant 13)

"Thinking about a specific child I have taught…"

(Participant 2)

In terms of family factors, teacher-parent communication (statement 8: rank +3) and family involvement (statement 22: rank +2) was recognised as important facilitating factors for the inclusion of pupils with SEND. ***"****Relationships with children and their parents is really important to me and my practice"* (Participant 1). In terms of statements related to gaining further knowledge and understanding, participants highlighted the importance of staff training and opportunities for CPD (statement 2: rank 2) and independent research and reading (statement 2: rank +2) in helping them to facilitate inclusion.

The area considered least helpful by participants was prior special school experience (statement 26: rank -4), which was the same as viewpoint 2.

"The needs are so different in mainstream education. It was nice to see how they [special schools] work but didn't help me to facilitate inclusion of pupils with SEND in mainstream."

(Participant 10)

"I think you gain some ideas and tactics from special school experience but don't think you need to work in a special school to be able to facilitate the inclusion of pupils with SEND"

(Participant 2)

"It would have made more sense to observe good practice in a mainstream school."

(Participant 13)

Other areas that were considered less helpful for the inclusion of pupils with SEND were:

- Senior Leadership Team support promoting inclusion (statement 30: rank -3)
- Information from previous teacher about pupil strengths and needs (statement 25: rank -3)
- Knowledge of inclusion policy (statement 28: rank -3)

Viewpoint Three Summary

Developing trusting teacher-pupil relationships were central for these participants and were viewed as the foundation to their practice. Many referred to their own experience teaching individual children to highlight how this factor seemed to make more of an impact than any other factor. Alongside this, positive teacher attitude toward pupils with SEND, day-to-day experiences and teacher-parent communication were also viewed as helpful in terms of the inclusion of pupils with SEND in their classrooms. After this, staff training, and independent research and reading were also noted as helpful. This will now be referred as viewpoint three (Appendix 29).

4.8 Consensus Statements

Consensus statements that do not distinguish between any pair of factors are outlined in Table 35. They have also been shaded purple in each of the three factor arrays (Figures 15, 16, 17). Twenty-four (out of thirty-two) statements were not significant at the p<0.05 level, with five significant at the p<0.01 level (indicated with an *). It is helpful to note that the P set's average zero-salience line was -2.5. Thus, on average, statements ranked higher than -2 were viewed as helpful.

Table 35
A table to show the consensus statements.

	Statement		Viewpoint			Average
			One	Two	Three	Rank
	1	Teacher-pupil relationship	*+4*	*+2*	*+4*	*+3.3*
	24	Accessing Support from the SENCo	*+2*	*+2*	*+1*	*+1.6*
*	23	Knowledge about Special Educational Needs	*+1*	*0*	*0*	*+0.3*
	14	Reviewing & Revising Provision	*0*	*-2*	*0*	*-0.6*
*	3	Whole School Policies & Systems that Promote Inclusion	*-1*	*0*	*+1*	*0*
*	7	Teacher Mentoring or Supervision	*-1*	*-2*	*0*	*-1*
*	19	Time & Support Planning Inclusive Lessons	*-1*	*-2*	*-1*	*-1.3*
*	26	Prior Special School Experience	*-3*	*-4*	*-4*	*-3.6*

Note: The significance level is p <0.05. The Asterix (*) indicates significance at p<0.01. The P set's average zero salience line is -2.5.

Statements considered more helpful:

The data revealed that all three viewpoints considered two statements to be particularly helpful in facilitating the inclusion of pupils with SEND:

- Teacher-pupil relationships
- Accessing support from the SENCo

Additionally, many participants also provided rich qualitative data to explain why they felt teacher-pupil relationships was helpful for them, with some providing examples of what this looks like for them in the classroom. Interestingly, some participants often referred to the relationship they had with the child whilst discussing the importance of other statements such as 'day to day experience in the classroom'.

Statements considered somewhat helpful:

As the average zero-salience line is -2.5, the following statements were regarded by all three viewpoints as somewhat helpful: knowledge about SEND, reviewing and revising provision, whole school policies and systems to promote inclusion, teacher mentoring, time, and support planning inclusive lessons.

Statements considered less helpful:

All three viewpoints considered prior special school experience as less helpful for the inclusion of pupils with SEND in mainstream primary classrooms. This was the only consensus statement below the average zero-salience line (-2.5).

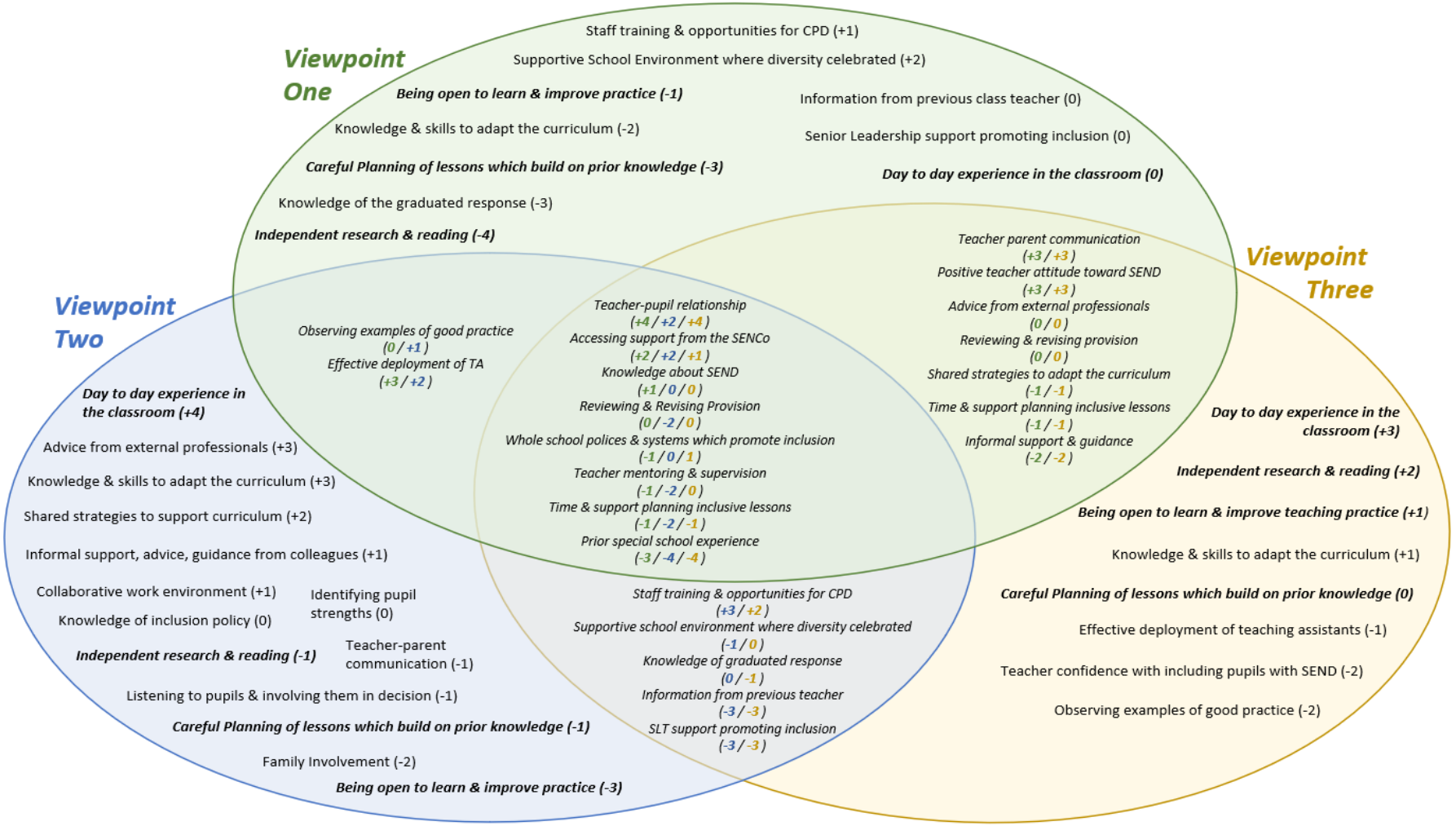
Comparing Similarities and Differences:

A comparison of key findings from each viewpoint is shown in Appendix 30. To support the reader's understanding, a Venn diagram is used to visually show the similarities and differences between each of the three viewpoints and can be viewed in Figure 18. The eight consensus statements are shown in the middle of the diagram as their ranking was similar between the three viewpoints. Distinguishing statements are shown around the edge, as their ranking was significantly different from the other two viewpoints. The z scores for four statements (5, 6, 18, 31) were distinctly different from one another (Appendix 30) and are shown in Figure 18. This implies that participants held significantly different views regarding the extent to which they believed the following areas were helpful in facilitating the inclusion of pupils with SEND in their classroom:

- Day-to-day Experience in the Classroom
- Independent Research & Reading
- Being Open to Learn & Improve your Teaching Practice
- Careful Planning of Lessons which Build on Pupil's Prior Knowledge

Figure 18

A Venn diagram to show similarities and differences of each viewpoint constructed from the data set.



Note: Consensus statements are presented in the middle of the Venn diagram as they were ranked similarly by each viewpoint. Distinguishing statements are shown around the edge. The z scores for four of the distinguishing statements were distinctly different from one and are written in bold.

4.9 Non-significant Q-sort

Q-sort five was the only completed Q-sort that did not load significantly onto one of the three viewpoints. The researcher reviewed their individual Q-sort and questionnaire comments to ascertain if any viewpoints had not been covered. Their factor loading can be found in Table 24 and was as follows: Factor 1 (0. 36) and Factor 2 (0.34), Factor 3 (0). Participant 5 placed their zero-salience line at -2 which was similar to the P set average (-2.5). Their demographic information is outlined in Table 36. This was the only participant from Coventry and the only participant who taught in Y5. There were 9 other teachers in their second year of teaching and 3 other teachers who trained via a PGCE.

Table 36

A table to show the demographic information for the non-significant Q-sort.

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*
10	0.75	2	23	PGCE	Y5	Coventry	5	3

Participant 5 appeared to have a slightly different viewpoint to that which had been interpreted from the three viewpoints. She expressed how she did value teacher-pupil relationships but didn't necessarily feel that this was helpful for the inclusion of pupils with SEND.

> *"Teacher-pupil relationship is one of the most important things for my own practice but not sure if that makes me better at including pupils with SEND."*
>
> (Participant 5)

Instead, she placed a high value on observing examples of good practice (Statement 16: rank +4) and felt this was inspirational, motivation and helpful to know how to include pupils with SEND in her own classroom.

> *"I'm a very visual learner, if I see something good, I find it easier to include this in my own practice. Having the opportunity to go into other settings and context and draw upon information from other people is really helpful. When you observe good practice… it's inspirational and motivational."*
>
> (Participant 5)

Participant 5 shared similar views to all of the other viewpoints on what was considered less helpful for the inclusion of pupils with SEND and ranked 'prior special school experience' as -4 due to the different context.

> *"Because they're set up completely differently, they may have five TAs in one classroom… you can't apply it as easily."*
>
> (Participant 5).

4.10 Additional Qualitative Information

The post-sorting questionnaire (Table 17) provided further qualitative information that is of interest to this study, including:

- *Are there any statements that you did not understand or did not make sense to you?*
- *Is there anything that you would have added to the Q-sort? E.g., statements that you felt were not included.*

The responses to the first question can be viewed in Table 37, which highlights how most participants felt they did understand the Q-set statements. Participant 1 reflected on how she felt the statements were *"clear and valid and will be important at different points in your career."* However, it is important to note that three participants were unsure about statement 20: *knowledge of the graduated response to SEND*. Participant 9 reflected on how she had ranked this statement as less helpful, as she did not understand what it was and thus it had not been helpful for her practice so far. Participant 12 reflected on how she was unsure of this terminology and how her current school referred to this concept as assess-plan-do-review cycle.

The responses to the second question can be viewed in Table 38 and highlights how five participants valued information sources that had not been included in the Q-set. Information sources Education and Health Care Plans (EHCP), provision maps, support plans, b squared and social media. Participant 3 shared how she felt EHCPs can be a "*helpful document with personal targets that might have suggestions on how to achieve inclusion".* Participant 9 shared how *"specific statements and targets for children with SEND"* can be helpful to keep in mind when thinking about inclusion. Participant 7 also shared how she had found *"social media and tips from twitter, TikTok and Facebook groups"* helpful for her practice to gain ideas around inclusive practice. However, when asked if this would

change their Q-sort arrangement if the statement had been included in the Q-set, participants shared that they would not have been ranked high nor low but instead placed around the middle of their Q-sort arrangement.

Table 37

A table to show participant feedback regarding statements they didn't understand.

Participant	Were there any statements that you did not understand?
9, 11, 12	*Knowledge of the graduated response to SEND (21)*
2, 3, 4, 5, 6, 7, 8, 10, 13, 14	*No.*
1	*No. All clear and valid, will be important at different points in your career, I think.*

Table 38

A table to show participant feedback regarding statements they would have added.

Participant	Were there any statements you felt were missing?
9	*Support plan and EHCP – specific statements and targets for children with SEND.*
1	*Paperwork side of things, support plans and provision maps.*
12	*Maybe b squared to help assess and monitor.*
7	*Social media (tips from twitter / TikTok / Facebook groups)*
3	*Perhaps something about EHCPs. This can be a really helpful document with personal targets. Might have suggestions on how to achieve inclusion in this way.*
2, 4, 5, 6, 8, 10, 11, 13, 14	*No.*

4.11 Results Summary

This chapter provides qualiquantological data to inform the research question: *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND.* To ensure transparency and coherency of results, the researcher provided an explanation of each step, presented the findings, and justified the methods used to analyse the results (Watts & Stenner, 2012). Using the program KADE, centroid factor analysis was used to extract seven unrotated factors. Statistical tests suggested retaining three factors for subsequent rotation. Varimax factor rotation produced a final three-factor solution which accounted for 49% of the study variance with one non-significant loading Q-sort. Manual rotation did not improve this factor solution.

The results show how the data from 14 completed Q-sorts have been summarised into three distinct holistic viewpoints. Consensus statements identified areas of agreement between the viewpoints, particularly in relation to the importance of teacher-pupil relationships and accessing support from the SENCo. On the contrary, all three viewpoints ranked prior special school experience as less helpful for the inclusion of pupils with SEND in mainstream classrooms. The P set's average zero salience line (-2.5) indicates that participants felt most statements (24 out of 32) were helpful for the inclusion of pupils with SEND. The following chapter will discuss the findings in relation to existing literature, evaluate the strengths and limitations of the results, and outline implications and recommendations for future research.

Chapter 5 – Discussion

5.1 Chapter Introduction

The aim of this chapter is to examine the results (chapter 4) in relation to relevant existing literature (chapter 2), evaluate the use of Q in answering the research question with reference to quality indicators and discuss the findings and implications of the present study. This chapter will progress through the following areas:

- Summary of the research findings
- Relating the findings to existing literature
- Strengths and limitations
- Implications
- Conclusions

5.2 Summary of the Research Findings

The aim of this study was to address the following research question: *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND in mainstream classrooms?*

Q provided a distinct, comprehensive insight into the range of viewpoints held by fourteen participants. By-person factor analysis identified three distinct viewpoints, highlighting the following areas as more helpful in facilitating the inclusion of pupils with SEND:

- **Viewpoint One:** valued relationships and collaboration with pupils, parents, and staff. Viewpoint one had a greater emphasis on a supportive school environment where diversity is celebrated.
- **Viewpoint Two:** valued experience, advice, and training. Viewpoint two had a greater emphasis on having knowledge and skills to adapt the curriculum and advice and support from external professionals.
- **Viewpoint Three:** valued relationships, experience, and independent learning. Viewpoint three had a greater emphasis on being open to learn and improve one's own teaching practice.

The findings suggests that a singular approach toward inclusion may not be appropriate, with a range of areas considered helpful for this participant sample. However, areas of consensus highlight the importance of **teacher-pupil relationships** and **support from the SENCo** for all three viewpoints.

The findings also revealed that participants considered:

- most of the Q-set statements as helpful (on average 24 / 32 statements).
- inclusion to be an important area in their practice.
- inclusion to be an area they could develop further confidence.
- prior special school experience was not essential for inclusive practice in mainstream schools.

Webler et al's (2009) criteria were applied to the three emergent viewpoints to ensure the final factor solution were clear, distinct, simple, and stable (Table 23). All but one participant significantly loaded onto a single factor, enabling most perspectives gained to be represented in the factor arrays. When analysing the one non-significant Q-sort, it is plausible that other viewpoints on this topic may exist, which may not have been captured within this participant sample.

The three viewpoints were moderately correlated (Dancey & Reidy, 2020). Closer inspection of each factor array identified some similarities between the viewpoints (e.g., Factors 1 and 3 agreed on what is most helpful and Factor 2 and 3 agreed on what is least helpful). However, each factor array displayed an overall view that was distinct from one another (Webler et al, 2009), with qualitative analysis revealing nuances in what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND in mainstream classrooms.

The researcher drew upon the factor arrays and interpretations to identify areas that participants may perceive as more helpful or less helpful for the inclusion of pupils with SEND in mainstream classrooms. Appendix 29-30 provides a summary of key findings from the results which will now be discussed in relation to existing literature. Whilst the researcher will comment on the statement ranked least helpful by all viewpoints, the focus of this study is: what *helps* primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND. Thus, a strength-based approach will be applied with a greater focus on the areas considered by participants as *more helpful.*

5.3 Research Findings in Relation to Existing Literature

This section will discuss key findings presented in Chapter 4 in relation to existing literature outlined in Chapter 2. Whilst the three viewpoints demonstrate the complexity of this topic and suggests that participants hold different views about what helps them to facilitate the inclusion of pupils with SEND, areas of consistency between all three viewpoints were also revealed. An important area of consensus was the fact that most of the Q-set statements (24 / 32 statements) were viewed by participants as helpful in facilitating the inclusion of pupils with SEND. The findings offer a unique and detailed account of the range of viewpoints held by fourteen primary teachers at the beginning of their career and will now be discussed in relation to existing literature.

5.3.1 Perceived Importance of Inclusion

The findings indicated a significant degree of consensus among participants regarding the importance of inclusion, with the P set average rating being 4.6 on a scale from 0 to 5. The findings showed that this view appeared to be consistent across all three viewpoints:

- Viewpoint 1: 4.5
- Viewpoint 2: 4.5
- Viewpoint 3: 4.8

The results suggest that the inclusion of pupils with SEND is generally perceived as important by primary school teachers, which is consistent with existing literature completed in the UK which found teachers hold overall positive views toward inclusion (Hodkinson, 2006; Rose, 2001). The systematic review identified that ECTs felt there was some value to inclusion and wanted to '*give it a go'* but were cautious about the counter-effects inclusion may have on other pupils (Hodkinson, 2006). Though Hodkinson's (2006) study identified that 40% of primary ECTs believed there to be benefits of inclusion, they also discovered that 30% did not and a further 30% had not yet decided. On the contrary, the findings from this study indicated that all fourteen participants (100%) perceived inclusion to be important. It is possible that participants who chose to take part in the present study felt more strongly about the importance of inclusion than the wider population.

5.3.2 Perceived Self-Efficacy regarding Inclusion

Similarly, the findings identified a significant degree of consensus among participants regarding their confidence with including pupils with SEND in their classroom, with the P set average rating being 3.2 on a scale from 0 to 5. The findings revealed a consistent view across all three viewpoints:

- Viewpoint 1: 3.2
- Viewpoint 2: 3
- Viewpoint 3: 3.4

The findings revealed that this participant sample scaled the importance of including pupils with SEND more highly than their confidence in doing so. These findings are consistent with existing literature (Norwich & Nash, 2011; Barber & Turner, 2007; Rose, 2001; Schuelka, 2018). For example, Rose (2001) identified that although teachers wanted to include pupils with SEND, they felt they required further support, resources, time, and training. The systematic literature review revealed that most ECTs judged their confidence and preparedness to teach pupils with SEND as 'adequate' with many believing 'inclusion of SEND' to be an area of development and growth in their practice (Barber & Turner, 2007; Norwich & Nash, 2011). The findings from this study suggest that more could be done to support the confidence of primary school teachers at the beginning of their career with facilitating inclusive classrooms.

5.3.3 Teacher Pupil Relationship

The importance of teacher pupil relationships was identified by all three viewpoints (+4, +4, +2) and was the most highly ranked statement for both Viewpoint 1 and 3 with many participants providing qualitative information to further emphasise the value of this statement. For example, *"I think our relationship made more of an impact on her progress than any other factor..."* (Participant 9) and "*Teacher-pupil relationships are crucial… because you don't understand a diagnosis, you understand a child. Each child is so different and unique, knowing what they're like and what they would respond well to…" (*Participant 8).

Whilst Viewpoint 2 ranked teacher-pupil relationships lower than the other two viewpoints, participants who loaded onto Viewpoint 2 still referred to the importance of the relationship they had developed with pupils in their post-sorting questionnaire. For example, *"…getting to know children as individuals and adapting things that work for them."* (Participant 6).

The findings suggest that developing teaching-pupil relationships is one of the most helpful facilitating factors for primary school teachers at the beginning of their career when thinking about the inclusion

of pupils with SEND in mainstream classrooms. This finding is consistent with existing literature (Coates et al., 2020; den Brok et al., 2010; Florian & Spratt, 2013; Morgan et al., 2023; Ofsted, 2021; UNESCO, 2016). Additionally, research investigating the views of primary ECTs within the UK revealed how the quality of relationships between teacher and pupil is an important facilitating factor for inclusion (Florian & Spratt, 2013), where teachers value, believe in and celebrate each pupil's strengths (Barber & Turner, 2007).

5.3.4 Teacher Attitude, Knowledge, and Skills

The findings identified further qualities relating to teacher attitude, knowledge and skills that were perceived as helpful in facilitating the inclusion of pupils with SEND in mainstream classrooms.

Firstly, positive teacher attitudes toward pupils with SEND was viewed as one of the most helpful statements by Viewpoint 1 and 3 (+3). Participant 11 shared "*If you don't really know how to support them, how are they supposed to feel confident in themselves and that they can access things? It's really important that you show them that you believe in them, and they can do it."* Although Viewpoint 2 ranked this statement lower than other statements, it was still viewed as helpful (+1). Findings are consistent with existing literature which highlights how positive teacher attitude toward pupils with SEND has a positive impact on their inclusion (Cooper, 1996; Florian & Spratt, 2013; Ginevra et al, 2022). For example, Florian and Spratt (2013) outline key themes identified when observing and interviewing ECTs in the UK. Key themes included: positive teacher attitudes, commitment to each child, believing all children will make progress, learn, and achieve, which align with the qualiquantological data from this study.

Secondly, listening to pupils and involving them in decisions about them was particularly viewed as helpful for Viewpoint 1 (+2) and somewhat helpful for Viewpoint 3 (+1). One participant shared *"without involving them and just telling them what they're doing, we won't get the desired outcomes… if we ask them what they would like to achieve then they achieve more because they're on board too" (Participant 1).* This aligns with contemporary literature which identifies how involving pupils in decisions about them is a key area that helps to facilitate inclusion, working *with* pupils rather than *to* them (NICE guidance, 2022; Morgan et al, 2023). In contrast, Viewpoint 2 appeared to find this statement much less helpful (-1) than other statements such as having knowledge and skills to adapt the curriculum (+3). Furthermore, Viewpoint 2's average zero salience line (0) suggests that this statement was not

considered to be helpful and therefore provides contrasting evidence to existing literature. Further research is needed to clarify this view.

Thirdly, knowledge and skills to adapt the curriculum was believed to be of high importance for Viewpoint 2, with participants ranking this statement as one of the most important (+3) out of the 32 Q-set items. Qualitative information from participant 7 provides further insight, *"Actually knowing what you're teaching and how best to adapt that to the children – that's what helps all children to access the learning."* Viewpoint 3 also felt this statement helped them to facilitate the inclusion of pupils with SEND (+1). This view is consistent with existing literature which highlights the importance of having knowledge and skills to include all learners and differentiate the curriculum appropriately (Hehir, 2012; Florian & Spratt, 2013; Barber & Turner, 2007; Kilgore et al, 2002). The systematic literature review also highlighted how ECTs in the UK wanted to develop their knowledge and skills to adapt the curriculum (Hodkinson, 2006) and wanted more input on differentiation and how to accommodate for pupils in their class (Norwich & Nash, 2011). However, the findings suggest that this view is not shared by all primary ECTs. Viewpoint 1 presents an alternative view to prior literature, perceiving 'knowledge and skills to adapt the curriculum' (-2) to be less helpful than most other statements.

5.3.5 Day-to-Day Experience in the Classroom

Viewpoint 2 believed day-to-day experience in the classroom was monumental for their practice and helped them to facilitate inclusion, with it being the most highly ranked statement (+4) out of the 32 Q-set items. Further qualitative information revealed that experience helped participants to incorporate knowledge, training, and guidance into practice: *"I think learning through experience has been so important for my practice, you have training and guidance but getting to know children as individuals and adapting things that work for them - the experience is so important."* (Participant 6). Similarly, Viewpoint 3 perceived this statement to be an important facilitating factor (+3).

These findings align with previous research, which identifies the importance of day-to-day experience in supporting ECTs to facilitate inclusion (Norwich & Nash, 2011; Barber & Turner, 2007). For example, Norwich and Nash's (2011) survey of 47 ECTs identified how the majority of ECTs valued day-to-day experience in the classroom when learning about SEND and facilitating inclusion:

- 74% of ECTs identified 'school placement' as helpful for learning about SEND.

- 85% of ECTs identified 'direct class teaching' as helpful for facilitating inclusion.

In contrast, Viewpoint 1 ranked day-to-day experience in the middle of the fixed normal distribution grid (0). One participant who loaded onto Viewpoint 1 shared that they felt day-to-day experience in the classroom "*wouldn't necessarily help you to facilitate inclusion… depending on what those experiences are to start with…" (Participant 12).* However, the average zero salience line (-2.3) for Viewpoint 1 suggests that this statement was still believed to be helpful. The findings from Viewpoint 1 suggest that future research may be required to decipher what experience is believed to be valuable in facilitating the inclusion of pupils with SEND.

5.3.6 Colleague Support & Collaboration

The findings identified the value of colleague support and collaboration in facilitating the inclusion of pupils with SEND in mainstream classrooms.

Firstly, external professional advice and support was particularly valued by Viewpoint 2, with it being one of the most highly ranked statements (+3). Further qualitative findings revealed how external professionals such as speech and language therapists, specialist teachers, and Educational Psychologists were more helpful than other colleagues as they have specialist knowledge and can provide a fresh perspective. This is consistent with existing literature which highlights how external professionals can provide valuable support to teachers, engaging in collaborative problem solving and advocating for the inclusion of pupils with SEND (Barber & Turner, 2007; Hehir, 2012; Norwich & Nash, 2011; Toye et al., 2019). Whilst Viewpoint 1 and 3 acknowledged there was some value of external professional support (0), other statements were ranked more helpful (such as SENCo and TA support). It is possible that some participants had not yet had much contact with external professionals considering they had recently begun their career.

Secondly, an area of consensus among all three viewpoints was the benefit of SENCo support (+2, +2, +1). Qualitative information also revealed *"The SENCo has been brilliant. Really helpful to understanding individual needs of children… my practice has become so much more inclusive because of the support I've had around me" (Participant 6).* The importance of SENCo support in facilitating the inclusion of pupils with SEND is consistent with previous literature investigating the views of ECTs (Barber & Turner, 2007; Norwich & Nash, 2011). For example, Barber and Turner (2007) identified that the two areas considered most helpful by the 60 primary ECTs who took part in their questionnaire was advice from

experienced colleagues and day-to-day experience in the classroom, with the combination of the two being the most frequently reported. Additionally, Norwich and Nash (2011) identified that *'more contact with SENCos whilst on placement'* was a key area suggested by ECTs to help them feel more prepared to include pupils with SEND in mainstream classrooms.

Incidentally, SENCo support was regarded by all Viewpoints as more helpful than informal advice and support from colleagues, with Viewpoint 1 and 3 ranking informal support and advice from colleagues as one of the least helpful statements (-2) and Viewpoint 2 as somewhat helpful (+1). Further qualitative information highlights how this statement may vary for each primary teacher's school context *"if I was surrounded my colleagues who felt more confident, then maybe this would be different… A lot of it depends on what the environment is like." (Participant 3).* Existing literature identifies informal advice and support from colleagues as helpful for teachers to facilitate inclusive classrooms (Barber & Turner, 2007). However, findings from the present study suggest that informal colleague advice and support is not perceived by participants as critical when thinking about what supports them to facilitate inclusion. Thus, the findings suggest the need for further research investigating what is valuable about informal colleague advice and support from primary school teachers who have positive experiences of this.

Finally, effective deployment of Teaching Assistants was regarded by Viewpoint 1 (+3) and 2 (+2) as particularly helpful. Additionally, the non-significant participant shared how *"collaboration with my TA is one of the biggest resources"* (Participant 5). This is consistent with existing research (Losberg & Zwozdiak-Myers, 2021; Hodkinson, 2006). However, the findings suggest that not all participants feel this is a key resource for facilitating inclusion, as Viewpoint 3 ranked effective deployment of TA (-1) lower than other areas such as: teacher-parent communication (+3).

5.3.7 Teacher-Parent Communication

The findings from Viewpoint 1 and 3 aligned with prior literature which highlighted the importance of teacher-parent communication (+3) in facilitating inclusive primary classroom (Bolourian et al., 2022; Morgan et al., 2023; Ofsted, 2021). In contrast, Viewpoint 2 did not place this statement as highly as the other two viewpoints (-1). The findings suggest that participants hold differing views about the extent to which home-school collaboration is important. The data suggest that this is a key area which

is valued by Viewpoint 3 who perceived both 'teacher-parent communication' (+3) and 'family involvement' (+2) as important facilitating factors, whereas Viewpoint 2 did not (-1, -2).

5.3.8 Training

Staff training and opportunities for CPD was an area perceived to be helpful by all three viewpoints but was particularly regarded as helpful by Viewpoint 2 (+3). Participants who comprised this viewpoint valued knowledge and highlighted the importance of staff training and drawing upon the expertise of professionals and colleagues. This statement was also perceived as helpful in facilitating the inclusion of pupils with SEND by Viewpoint 3 (+2) and Viewpoint 1 (+1) but was ranked lower than other Q-set statements (such as relationships and collaboration with pupils, parents, and staff).

Consistent with the existing literature, the findings emphasised the importance of staff training and opportunities for CPD in helping teachers to facilitate inclusive classrooms (Rose, 2001; Kamens et al, 2003; Barber et al, 2007; Hodkinson, 2006; Norwich & Nash, 2011). However, it is unclear what specific training and CPD opportunities would support primary teachers at the beginning of their career to facilitate the inclusion of pupils with SEND and thus provides an opportunity for future research.

5.3.9 Independent Reading and Research

The findings diverged in their view of whether independent reading and research helped them to facilitate the inclusion of pupils with SEND in mainstream classrooms (-4, -1, +2). Viewpoint 3 aligns with prior literature which suggests independent reading and research can be a helpful facilitating factor for inclusion (Barber & Turner, 2007; Norwich & Nash, 2011). It was also acknowledged that independent research on social media (such as Facebook, TikTok) was helpful for one participant. However, Viewpoint 1 provides contrasting evidence, perceiving independent reading and research to be the least helpful out of the 32 Q-set items. One participant shared, *"I personally find it really hard to learn this way"* (Participant 8) and another shared *"When you observe good practice, it's inspirational… it's easier to include in my own practice"* (Participant 5). These findings suggests that there is not a 'one size fits all' approach, with some participants finding independent research more helpful and others preferring direct experience or observing good practice.

5.3.10 Prior Special School Experience

The findings highlighted a key area of consensus among all three viewpoints about what was viewed as less helpful in facilitating the inclusion of pupils with SEND. This was the only consensus statement placed below the P set's average zero-salience line (-2.5), which indicates that this statement was believed to be less helpful than statements considered to be neutral.

- Viewpoint 1: -3
- Viewpoint 2: -4
- Viewpoint 3: -4

Further qualitative information indicates participants do not feel this was essential experience to have and how it would make more sense to observe good practice in mainstream schools rather than special schools, as the school context operates differently. For example, Participant 10 shared "*It was nice to see how they [special schools] work but didn't help me to facilitate inclusion of pupils with SEND in mainstream.*" The findings from this study provide contrasting evidence to existing literature (Coates et al., 2020; Norwich & Nash, 2011), and suggests that prior special school experience may not be as helpful as other areas for this population group.

5.3.11 Summary

Key findings have been examined and related to existing literature. Addressing a key gap in the literature, this study investigated the range of views held by primary school teachers at the beginning of their career in relation to what helps them to facilitate inclusion. Consistent with the social constructionist paradigm, the results show that there are differing views amongst participants. The findings show that the following areas were viewed as more helpful by each of the three viewpoints and are consistent with previous research:

- Viewpoint One: valued relationships and collaboration with pupils, parents, and staff.
- Viewpoint Two: valued experience, advice, and training.
- Viewpoint Three: valued relationships, experience, and independent learning.

Inconsistent with previous literature, the findings suggest that prior special school experience may not be helpful for primary school teachers at the beginning of their career. The findings also suggest that further research is required to uncover why some areas were helpful for some participants and not others, such as informal colleague and advice and support, effective deployment of teaching staff and listening to pupils and involving them in decisions about them.

Finally, whilst a range of views were identified, areas of consensus highlighted the importance of teacher-pupil relationships and accessing support from the SENCo. This study presents a significant, unique contribution to the research field – furthering our understanding of what helps primary teachers at the beginning of their career to facilitate inclusion. The strengths and limitations of this research will now be discussed.

5.4 Strengths and Limitations of the Research

By engaging in reflexivity, the researcher aims to critically reflect on how the strengths and limitations may impact the research process and findings.

Recognising that Q provided a unique qualiquantological approach, the researcher will draw upon both quantitative and qualitative assessment indicators (Armstrong, 2017; Frater, 2021). Four aspects of research trustworthiness are described by Guba (1981) and include: truth value, applicability, consistency, and neutrality. Table 39 outlines how these four areas relate to quantitative and qualitative quality constructs (Garbett, 2022; Guba, 1981; Shenton, 2004). Applying these criteria, the strengths and limitations of the present study will now be discussed.

Table 39

A table to show Guba's (1981) trustworthiness criteria related to quantitative and qualitative quality constructs.

Four Aspects of Trustworthiness in Research	**Quantitative Quality Constructs**	**Qualitative Quality Constructs**
Truth value Establishing confidence in the truth of the findings and the extent to which the research explores what it set out to.	Internal validity	Credibility
Applicability Determining the degree to which the findings have applicability in other contexts or with other subjects.	External validity	Transferability
Consistency Determining whether the findings would be consistently repeated if the study was replicated with the same / similar participants or in the same / similar context.	Reliability	Dependability
Neutrality Establishing the degree to which the findings are a function solely of participants and conditions and not researcher biases, motivations, interests, perspectives.	Objectivity	Conformability

5.4.1 Internal Validity and Credibility

Firstly, internal validity and credibility refers to the extent to which the findings are trustworthy, and the study explores what it intended to (Guba, 1981; Shenton, 2004).

5.4.1.1 Appropriate Research Method

An appropriate, well recognised research method was used for the present study, with Chapter 3 providing a transparent rationale for why Q was used to answer the research question. Q has effectively been used by previous educational psychology research to explore the holistic views of educational professionals (Frater, 2021; Hallam, 2014; Pritchard, 2021), but has not yet been used to investigate the views of primary school teachers at the beginning of their career regarding inclusion. Furthermore, Q is regarded as a useful methodology to investigate complex and socially contested phenomenon (Watts & Stenner, Stainton Roger, 1995), which researchers have identified this area of inquiry to be, presenting a clear barrier to the development of evidence-based practice and knowledge regarding inclusion (Lambert & Frederickson, 2015; Loreman et al., 2014).

5.4.1.2 Participants

The participant sample was perceived as a gap in the literature, with the systematic literature revealing very few studies investigating the views of primary ECTs on inclusion in the UK. As teachers are considered key implementers of inclusion and make daily planning and teaching decisions for the education of pupils with SEND, their views are invaluable to this area of inquiry (Kamens et al., 2003; Wolery et al., 1995). Q provided the means of exploring what helps this population to facilitate inclusion and identified practical implications to support the inclusion of pupils with SEND in mainstream primary schools.

Recommended by Q literature, purposeful snowball sampling was used to recruit participants (Webler et al., 2009), which reduced researcher bias and resulted in a diverse sample. However, it is possible that this increased the potential for self-selection bias. For example, participants who took part in this study may have felt more strongly about inclusion than the wider population. To mitigate the effects of social responding and demand characteristics, participants were provided with anonymity and were

reassured that there was no right or wrong Q-sorts or answers when completing the study. Instead, their own authentic view was of interest.

Whilst some demographic information was obtained, a possible limitation within this research is that detailed information regarding participant's school context and how they defined inclusion was not obtained. This would have provided further information to support the factor interpretations and provide possible next steps for future research. For example, Viewpoint 1 identified that a supportive school environment where diversity is celebrated as an important facilitating factor, whereas Viewpoint 2 and 3 did not. Thus, it would have been interesting to identify if there were any similarities between participant's school contexts who configured Viewpoint 1. Additionally, whilst Q provided participants with the opportunity to ascribe meaning and importance to each statement, it would have been valuable to uncover how each participant described inclusion, particularly as the literature review identified a lack of clarity surrounding what an inclusive classroom looks like (Kalambouka et al., 2007). These limitations provide useful reflections and opportunities for future research.

5.4.1.3 Triangulation and Peer Reviews

Triangulation and peer reviews are strategies suggested to ensure credibility of research (Lincoln & Guba, 1985). Drawing upon a range of data is viewed as a strength of the study, as the findings could be verified and individual method limitations reduced (Shenton, 2004; Guba, 1981; Frater, 2021).

Firstly, the concourse and subsequent Q-set was based on multiple sources including previous literature, interviews, and media to ensure sufficient coverage of the complex phenomenon of inclusion (Watts & Stenner, 2012). Thus, the finalised Q-set was a product of triangulated information (Appendix 8) and ensured that the findings produced holistic and relevant viewpoints on the intended area of inquiry (Garbett, 2022). In addition to this, Chapter 3 outlines how the Q-set was piloted, and peer reviewed to check for appropriateness, coverage, and ambiguity.

Secondly, factor interpretations were based on a range of information including qualitative factor array data, qualitative post-sort data and demographic information. This information was triangulated to produce holistic viewpoints and thus increases the credibility of the results (Shenton, 2004). Moreover, frequent peer supervision and scrutiny was implemented with two trainee educational psychologists familiar with Q. This included: reviewing online Q-sort software, supporting the refinement of the Q-set, inter-rater reliability checks on the factor extraction and factor rotation process, and scrutinization of factor interpretations. These strategies promoted researcher reflexivity, enabling potential assumptions to be challenged by those further removed from research (Shenton, 2004; Frater, 2021).

5.4.1.4 Researcher Positionality and Framing the Findings

Information regarding the researcher's positionality, is described in Chapter 1. The researcher had four years teaching experience in a mainstream primary classroom and can therefore relate to the participant sample. The researcher has since worked in three different EP services and worked alongside educational professions in a variety of mainstream primary schools. Adopting a social-constructionist epistemological views, the researcher acknowledged that they are a part of the construction of knowledge and aimed to provide a transparent and reflexive account of the research approach, with key findings related to previous literature (Burr, 2015; Mertens, 2020).

5.4.1.5 Face Validity

During the post-sorting questionnaire, participants were asked to reflect upon any areas they felt were missing or unclear in the Q-set. The findings are outlined in Chapter 4 and indicate a potential limitation of the Q-set. Firstly, four participants indicated that written documents (such as support plans, educational and health care plans) may have been an area that helped them to facilitate inclusion. Secondly, three participants indicated that they were unsure what 'knowledge of the graduated approach to SEND' was and thus could not comment on whether it was helpful. Future research may wish to consider these areas in Q-set development.

It is also important to note that this study did not ask for participant's conceptualisation of inclusion. A key difficulty for research investigating inclusion is the ambiguous and subjective nature of the term inclusion (Kalambouka et al., 2007). Webster (2022) discusses the disparity between theoretical ideals of inclusion and the actual experiences of students with SEND in mainstream schools. It is therefore possible that some primary school teachers may have had a simplistic conceptualisation of inclusion such as a teacher assistant deployment model or children with SEND working 1:1 with a member of staff (Webster, 2022; Woolfson, 2024). Frederickson and Cline (2015) query how many pupils who have been described as 'included', may in fact be receiving a combination of segregated, integrated, and inclusive practice (see Figure 1). Future research may want to investigate how primary school teachers at the beginning conceptualise inclusion.

A key strength of the research was the identification of the 'zero-salience line' (Webler et al, 2009). This was of particular importance during factor interpretation and ensured that the researcher was aware of the extent to which the statement was considered helpful or unhelpful and was able to refer to statements within the -1, 0 and +1 column (Watts & Stenner, 2012).

5.4.2 External Validity and Transferability

Secondly, external validity and transferability refers to the degree to which findings can be generalised or applied in other contexts (Guba, 1981; Shenton, 2004).

Whilst it is not possible to show the extent to which the three viewpoints revealed in this study are shared within the wider population, this is not what this study or methodological approach intended to do (Baker et al., 1994; Rodl et al., 2020; Van Exel & De Graaf, 2005; Webler et al., 2009). Instead, Q enabled the identification of nuanced holistic viewpoints regarding what helps primary teachers at the beginning of their career to facilitate inclusion, which may not have been identified with alternative methodologies such as surveys or interviews (Zabala et al., 2018). The findings of this study provide:

- a solid foundation for understanding strategies that support inclusive primary classrooms.
- insight into the range of views held by primary teachers at the beginning of their career
- implications for educational staff and pupils with SEND
- next steps for future research

Furthermore, the argument of logical generalisation suggests that significant areas of consensus identified by this study (such as the value of teacher-pupil relationships), may also be found with other primary school teachers in their first few years of teaching (Garbett, 2022; Patton, 2023).

The participant sample included primary teachers in their first, second or third year of teaching in mainstream classrooms across a range of ages, year groups, geographical locations (particularly within the East Midlands) and teacher training courses which are outlined in Chapter 4. However, one area that did not have much variation was the fact that all participants were female. Whilst this is somewhat representative of the national picture (74% female) (Department for Education, 2023b), it is a potential limitation to this study. It is possible that this study may have uncovered further viewpoints regarding what helps primary teachers at the beginning of their career, if male teachers had been included in the sample. Additionally, although larger sample sizes are generally desired to increase the generalisability of findings, the researcher adhered to Q research guidance which advises a 1:2 – 1:3 ratio between participants to statements (Watts & Stenner, 2012; Webler et al., 2009). The researcher acknowledges that low generalisability is a key limitation of the Q research design. Future research with alternative research designs may help to explore this area of inquiry with a wider participant sample.

5.4.3 Reliability and Dependability

Thirdly, reliability and dependability refer to whether the findings would be consistently repeated if the study was replicated with the same or similar participants / context (Guba, 1981; Shenton, 2004).

Aligning with the researcher's epistemological stance, Q rejects the notion that participant's subjective viewpoints are static and instead proposes that Q-sorts provide a snapshot of subjectivity at that moment in time (Watts & Stenner,2005, 2012; Cross, 2005). Having said this, some research indicates that the same Q-sort completed by the same individual correlate over time (Akhtar-Danesh et al., 2008; Brown, 1980; Nicholas, 2011).

To increase the replicability of the study, detailed accounts of the procedure are provided. This also provides the reader with information to assess whether the procedure has been implemented effectively (Shenton, 2004).

5.4.4 Objectivity and Conformability

Finally, objectivity and conformability refer to the extent to which findings are representative of participant's views and are free from researcher bias (Guba, 1981; Shenton, 2004). As discussed, the researcher used triangulation and peer reviews to minimise potential research bias and endeavoured to provide a transparent account and rationale for decisions made (Shenton, 2004; Watts & Stenner, 2012). This included:

- drawing upon a range of sources, literature and interviews when developing the concourse
- piloting the Q-set before completing the study
- employing a range of statistical criteria to inform the factor extraction process
- frequent inter-rater reliability checks during the analysis process
- employing a range of statistical criteria to inform the factor extraction process
- utilising varimax rotation within the factor rotation process
- using a systematic and transparent approach toward factor interpretation
- inviting scrutiny from individuals with Q expertise on the final factor interpretations

This section provided an overview of the strengths and limitations of the present study. The implications for future research and professionals working in education will now be discussed.

5.5 Implications

The findings of this research have important implications for primary teachers, school leaders, educational psychologists, teacher training courses, policy makers and any individual passionate about the inclusion of pupils with SEND in mainstream primary classrooms. The findings indicate that there are a range of views held by participants regarding what helps them to facilitate inclusion. Distinguishing statements revealed that some participants valued a supportive school environment and listening to pupils and involving them in decisions about them (Viewpoint 1), others appreciated advice and support from external professionals and shared strategies to adapt the curriculum (Viewpoint 2), whereas others valued being open to learn and improve their practice and drew upon their own independent reading and research (Viewpoint 3). Thus, consistent with previous findings, it is unlikely that a 'one size fits all' approach toward facilitating inclusion will be successful (Odom et al., 2004; Frater, 2021).

Having said this, the findings revealed areas considered helpful by all three viewpoints and highlight the importance of these areas when thinking about the inclusion of pupils with SEND in mainstream primary classrooms. These will now be discussed in relation to the psychological theories that underpin them.

- ***Teacher-Pupil Relationships***

In the context of education, teachers can serve as secondary attachment figures (Bowlby, 1969). A secure, trusting relationship with a teacher can foster a child's sense of safety and confidence, facilitating learning and emotional well-being (Bergin & Bergin, 2009). Psychologists have highlighted the dynamic link between children's relationships and engagement in learning in school and emphasise the importance of teachers creating a classroom environment that supports attachment by being responsive, consistent, and attuned to the emotional needs of children (Geddes, 2017; Bergin & Bergin, 2009; Bombèr, 2011; Rimm-Kaufman & Sandilos, 2011).

Furthermore, humanistic theories (Rogers, 1995), sociocultural theory (Vygotsky, 1978) and self-determination theory (Ryan & Deci, 2000) also accentuate the importance of teacher-pupil relationships. Rogers (1995) emphasises the importance of fostering an environment of unconditional positive regard, empathy, and genuineness to support individual's growth. Vygotsky (1978) highlights how children learn best when they engage in social interactions with teachers and peers to help them

internalise new knowledge and skills. Additionally, Ryan and Deci (2000) maintain that individuals have inherent psychological needs for autonomy, competence, and relatedness. Teachers can support these needs through developing teacher-pupil relationships and subsequently enhancing children's motivation and engagement in learning (Osterman, 2023; Ruzek et al, 2016).

- ***Advice and Support from the SENCo***

Ecological systems theory emphasises the multiple layers of environment that influence a child's development (see Figure 3), from the teacher and classroom level to broader contexts such as school policies and societal attitudes (Bronfenbrenner & Morris, 2006). SENCOs work within these layers and can advocate for systemic change to support the inclusion of students with SEND and work collaboratively with a range of educational practitioners such as EPs. Researchers have discovered how SENCOs can act as a bridge between EPs and teachers, sharing expertise, resources, and perspectives to create a cohesive approach to support the inclusion of pupils with SEND and integrating psychological recommendations in educational settings (Barton, 2003).

- ***Staff Training and Opportunities for CPD***

Bandura's (1978) self-efficacy theory highlights the importance of belief in one's capabilities to execute actions required to manage prospective situations. Staff training and CPD programs aim to build teachers' self-efficacy by providing them with the knowledge, skills, and resources necessary to effectively support students with diverse needs, thereby enhancing their confidence and competence (Wray et al, 2022). Moreover, psychological theories highlight the importance of training and CPD drawing upon these principles:

- The adult learning model maintains that adults learn best when they are self-directed, have practical learning experiences and can apply new knowledge immediately (Knowles, 1984). Thus, staff training and CPD programs designed to support inclusion should be relevant, practical, and collaborative, allowing educators to engage actively and apply inclusive practices in their classrooms.
- The importance of continuous learning through reflective practice (Schön, 1983) asserts that staff training and CPD should encourage teacher reflection, assessing their teaching methods, recognising biases, and identifying areas for improvement in supporting inclusive education.

- Viewing school organisations as complex systems with interrelated parts (Bronfenbrenner & Morris, 2006), suggests effective training and CPD recognises that promoting inclusion involves change at multiple levels within the school system including school policies, practice, and culture.
- Understanding the complexity of implementing and sustaining change and how Lewin's (1951) change theory can help support this process, helping them to let go of old practices, adopt new inclusive strategies, and establish these as standard practices in their teaching.

- ***Positive Teacher Attitudes Toward Pupils with SEND***

Firstly, Ajzen's (1991) theory of planned behaviour suggests that an individual's attitudes, subjective norms, and perceived behavioural control influence their intentions and behaviours. Research has found that positive attitudes towards pupils with SEND can lead to more inclusive teaching practices (Avramidis & Norwich, 2002; Forlin & Chambers, 2011; Boyle et al., 2020).

Secondly, attribution theory (Heider, 1958; Kelley, 1973; Weiner, 1985) examines how individuals perceive, interpret, and understand the cause of their own and others' behaviours and the effects of these perceptions on their own emotional and motivational states. Thus, teachers' attributions about a child's special educational needs can influence their attitude and responses. For example, viewing difficulties in learning as a professional dilemma for the teacher, shifting away from a *within-child* perspective and adapting the *environment* to be more inclusive of all children's needs (Florian & Spratt, 2013). This broader and holistic understanding fosters empathy and can reduce negative biases, leading to more positive, supportive, and inclusive classroom environments (Avramidis & Norwich, 2002; Florian & Black-Hawkins, 2011).

Thirdly, social learning theory (Bandura, 1977) maintains that teachers act as role models and their behaviours, attitudes and interactions can significantly influence children. Positive teacher attitudes and behaviours can encourage similar behaviours in children, promoting a conducive learning environment (Forlin & Chambers, 2011).

Finally, self-determination theory (Ryan & Deci, 2000) explores how individuals have inherent psychological needs for autonomy, competence, and relatedness. When teachers support these needs by providing a sense of autonomy, fostering competence through appropriate challenges, and creating a sense of belonging, students are more likely to be motivated, engaged, and successful in their learning (Osterman, 2023; Ruzek et al, 2016).

- ***Day-to-Day Experience in the Classroom***

Constructivist theories (Piaget, 1972; Vygotsky, 1978) emphasises how learning is an active, process-driven experience where individuals build their own understanding based on their interactions with the world. This perspective highlights the importance of teachers' day-to-day experiences, actively learning and constructing knowledge through experience and interactions in the classroom. The adult learning model also highlights the importance of practical learning experiences (Knowles, 1984). For example, so that primary school teachers can apply knowledge (that supports the inclusive education) in context (Florian, 2014).

- ***Knowledge about SEND***

Knowledge about SEND is essential for teachers to design and implement strategies that support children with SEND and accommodate all learners (Ainscow et al, 2013; Wray et al, 2022). For example, Vygotsky's (1978) Zone of Proximal Development, highlights the importance of having knowledge about SEND and providing appropriate scaffolding to help them learn. Additionally, drawing upon Ajzen's (1991) theory of planned behaviour and Bandura's (1978) self-efficacy theory, teachers with comprehensive knowledge about SEND are more likely to develop positive attitudes towards inclusion, perceive inclusion as a normative expectation, and feel confident in their ability to implement inclusive practices. This increased self-efficacy can lead to more effective and proactive inclusion strategies in the classroom (Lyons et al, 2016).

5.5.1 Implications for Policymakers and Local Authorities

Drawing upon a strength-based approach, a focus for policymakers, teacher training courses, EPs and SLTs should be upon areas believed to facilitate inclusion by all viewpoints. The findings also revealed that all participants felt they could improve their confidence with including pupils with SEND. It is important that concerns within this population are heard and considered if the desired outcome is to facilitate inclusion.

The literature review simultaneously outlines key legislation which states the importance of inclusion and key barriers to its successful implementation. One such barrier, is the lack of clarity and guidance

around what inclusion is and how it can be achieved. If the desired goal is inclusion for all children (UNESCO, 1994; DfE & DoH, 2015), then it is important for policymakers and local authorities to address whether current policy direction is likely to achieve this. The findings from this study suggest that a one size fits all approach may not be appropriate but provide foundational principles that can act as a guide for policymakers. A useful starting point may be identifying what successful inclusion looks like practically, perhaps drawing upon UNESCO's (2017) inclusive practice framework.

Furthermore, another key barrier outlined by the literature review was the significant tension between opposing government agenda: to raise academic standards for all pupils (attainment agenda) and develop educationally inclusive policies and practices (inclusion agenda) (Ainscow et al., 2006; Brown, 2018; Rouse & Florian, 1997). Policymakers may also consider how to disentangle these antagonistic agendas, in favour of an approach that supports schools to promote education for all children with clearer incentives for inclusion (Farrell & Ainscow, 2002; Florian et al., 2004; Frater,2021).

The findings from this study align with the notion that teachers are key implementers of inclusion (Booth et al., 2000; Peček et al., 2008; Schuelka, 2018), with several areas considered helpful for primary school teachers at the beginning of their career to facilitate inclusion. Policymakers may need to think about what capacity there is in the current curriculum and day-to-day timetable for primary school teachers to develop trusting relationships with children, access advice and support from the SENCo, offer opportunities for staff training and CPD and provide information about SEND. This is also an important area for school leaders to reflect on a school-wide level.

Finally, it is interesting to discover that three out of fourteen participants conceded to not being aware of 'the graduated response to SEND'. Policymakers may want to reassess how accessible inclusion policy is for primary school teachers at the beginning of their careers and what information would support them to facilitate inclusion.

5.5.2 Implications for Teacher Training

The findings from this study indicate that many participants considered staff training and opportunities for CPD an important area that would support them to facilitate inclusion. This is consistent with previous literature (Barber & Turner, 2007; Hodkinson, 2006; Norwich & Nash, 2011; Rose, 2001) and highlights the importance of further exploration surrounding what training would be most helpful and how it could be incorporated into teacher training programmes. The Department for Education may consider how to implement specific teaching and training around inclusion and provide further

knowledge about SEND. The findings indicated a significant consensus that prior special school experience was less helpful than most other areas, with it being below the zero-salience line for all viewpoints and the lowest ranked statement for two viewpoints. This is important information for teacher training programmes, with many participants alluding to the fact that it would be more favourable to have the opportunity to observe good, inclusive practice in mainstream schools during their training. Participants shared that they felt prior special school experience was not necessary and was difficult to transfer this experience to mainstream school contexts. The Department for Education may want to consider what experience would be helpful for primary teacher trainees to gain before becoming qualifying.

5.5.3 Implications for Schools

A supportive school environment where diversity is celebrated was viewed as a key area of viewpoint one; this helps to facilitate the inclusion of pupils with SEND and is consistent with prior literature (Ainscow & Sandill, 2010; Ferguson, 2008; Lyons et al., 2016). It is interesting that this perspective was not shared across all viewpoints. Similarly, whole school policies and systems that promote inclusion were not rated highly by any of the three viewpoints. Whilst acknowledging the complex dilemmas schools face with upholding their commitment to contradictive government agenda, it would be helpful for school leaders to reflect on how inclusive practice is supported, celebrated, and promoted in their setting (Ainscow et al., 2006). This is reinforced by research which stresses the importance of each school identifying and addressing their own barriers to inclusion (Banks, 2021; Booth & Ainscow, 2002; UNESCO, 2017).

One of the key areas perceived to be helpful by all viewpoints was accessing support from the SENCo and is consistent with previous literature (Barber & Turner, 2008; Norwich & Nash, 2011). Whilst contextual barriers prevent SENCos from providing regular 1:1 support for all primary teachers, the findings suggest that it would be beneficial for school leaders to investigate how SENCos can be best utilised (Lyons et al., 2016). It may also be beneficial for them to reflect on how information from the SENCo could be cascaded to all staff. Furthermore, as the findings show that teacher mentoring was not viewed as particularly helpful by any of the three viewpoints, school leaders may need to reflect on what their mentoring system looks like and investigate what would be beneficial for this population group (Morgan, 2023; NICE Guidance, 2022).

As discussed, it would be helpful for schools to consider what opportunities there are for primary teachers to access training and CPD, as this was helpful for all three viewpoints and is consistent with prior literature (Rose, 2001; Norwich & Nash, 2011). These opportunities require protected time, which schools should consider pragmatically, weighing up the practical costs alongside the projected benefits.

5.5.4 Implications for Primary Teachers

The findings have implications for primary teachers (particularly at the beginning of their careers) and provide a reflective tool to help individuals reflect on what helps them to facilitate inclusion. The findings also suggest that there is not a one size fits all approach, with this study identifying three distinct viewpoints. This suggest that primary teachers may view strategies to support inclusion differently and highlights the importance of self-reflection. However, findings identified that most of the Q-set statements (on average 23 out of 32) were considered helpful by participants. This suggests that the Q-set statements (and Q-sort activity) may be a useful exercise to support primary teacher's self-reflection about what helps them to facilitate the inclusion of pupils with SEND.

Additionally, many primary teachers identified the importance of their own attitude, knowledge, and skills on the inclusion of pupils with SEND, such as positive teacher attitudes toward pupils with SEND and knowledge about SEND. Thus, the statements included in the Q-set may support primary teachers to audit their knowledge, skills, and attitude. For example:

- *Example Statement (What current knowledge and skills do you have to adapt the curriculum?)*
- *What is the impact of this statement on the inclusion of pupils with SEND in your class?*
- *Is this an area you feel motivated to develop?*
- *What step or action might support this development?*

Findings from the study indicate the importance of teacher-pupil relationships and day-to-day experience. Thus, it may be helpful for primary teachers to reflect on how they build and prioritise relationships with children with SEND and what aspects of their daily experiences are considered helpful. It may also be helpful for primary teachers to ask pupils in their class how they feel about their relationship and day-to-day experiences. This may help to triangulate information and support them to build upon areas that are considered helpful by children as well as themselves. Further importance was ascribed to the support and collaboration of colleagues and teacher-parent communication. It may be helpful for primary teachers to reflect on what these areas looks like in their school context and what might help them to further develop their inclusive practice.

5.5.53 Implications for Educational Psychologists

Researchers highlight how EPs are well placed to promote inclusion (Berger, 2013; Farrell, 2004; Lambert & Frederickson, 2015) and the importance of listening to teacher's voices to achieve this (Anderson et al, 2007). The findings of this study have implications for how EPs may support primary teachers and schools with inclusion.

EPs may have a practical role alongside other educational professionals in delivering training and supporting CPD around inclusion (BPS, 2019). This may also support primary teachers at the beginning of their career to develop their confidence with including pupils with SEND, foster positive attitudes toward the inclusion of pupils with SEND and increase levels of intrinsic motivation to include pupils with SEND (Chiner & Cardona, 2013; Sharma et al., 2008).

Considering the range of views identified by participants regarding what helps them to facilitate inclusion, EPs may be able to reflect upon individual's perception of inclusion and co-construct solutions based on what is viewed as helpful for them. The Q-set may act as a tool for EPs to help primary teachers to reflect on what is helpful and build upon strengths of the situation. It may also be a helpful tool to spot areas for systemic development, such as what SLT support promoting inclusion or teacher-parent communication looks like at their school. EPs will be able to draw upon their knowledge and skills to support collaborative problem-solving and develop positive and effective ways forward (West & Idol, 1987).

The findings from this research indicates that teacher mentoring and supervision was not a strongly valued area. Instead, advice and support from the SENCo was viewed as more helpful by all three viewpoints. Whilst contextual barriers prevent SENCos from providing regular 1:1 support for all primary teachers, it is possible that supervision systems require a change of focus, with primary ECTs receiving more support and joint problem solving around how to include pupils with SEND. EPs may consider what support systems can be made regularly accessible for primary teachers at the beginning of their careers and whether training school staff on how to provide effective supervision sessions would be beneficial. Additionally, EPs often work collaboratively with schools, families and wider communities and thus are well placed to share strategies that may support the inclusion of pupils with SEND in their day-to-day practice.

Interestingly, viewpoints diverged on the extent to which they viewed professional advice and support helped them to facilitate inclusion. Whilst it is possible that some participants may not yet have

received support from external professionals, it is also possible that improvements could be made to the way EPs work with primary teachers at the beginning of their careers. EPs may consider following up this information by asking them what support (if any) they have received from EPs, what support was helpful for them in facilitating inclusion and what could be further improved. This would provide EPs with further insight into their practice to support primary teachers at the beginning of their career and indirectly support the inclusion of pupils with SEND.

5.5.6 Implications for Future Research

Using Q methodology, this study was effective in answering the research question: what helps primary teachers at the beginning of their career to facilitate the inclusion of pupils with SEND, with three distinguishable viewpoints identified among the participant sample.

However, the findings also identified one non-significant Q-sort, which suggests that further viewpoints may exist among this participant sample. Further research is required to uncover if this is the case. In-depth interviews may help to explore some of the identified themes within this study such as: what helps primary school teachers at the beginning of their career to develop a teacher-pupil relationship, how does this help to facilitate inclusion and what are some of the challenges or potential barriers to being able to develop this.

A necessary next step from this study would be to address the limited generalisability of the findings. Survey designs may help to explore the prevalence of the identified views within the wider population and enable a wider participant sample such as Barber and Turner (2007) or Norwich and Nash (2011). Researchers may want to investigate the extent to which participants agree with each of the individual Q-set statements or the extent to which they agree with each viewpoint (Webler et al, 2009). This would provide helpful information for national policy and teacher training courses.

On the contrary, future researchers may choose to use a case study design to provide valuable information regarding how the areas identified in the Q-set may be practically implemented to facilitate inclusion such as Florian and Spratt (2013). This might help to uncover what the impact of strategies has on pupils with SEND. Drawing upon a strength-based approach, appreciative inquiry may also provide a useful methodology to identify what effective inclusive practice looks like in a specific setting or context.

Utilising Q, a next step from this study would be to explore the views of secondary school teachers at the beginning of their career or experienced primary teachers. Further research into these areas would

enable comparisons to be made between the viewpoints of specific participant sample groups. Firstly, investigating the views of secondary teachers at the beginning of their career would uncover useful information as this is a similarly underrepresented participant sample group in literature that is also experiencing retention difficulties. Additionally, the systematic review identified that secondary ECTs rated their SEND preparation lower than other areas (Norwich & Nash, 2011; TDA, 2008). Due to the contrasting school contexts, the Q-set will most likely need to be adapted for use with secondary teachers. Secondly, investigating the views of experienced primary teachers may also help to uncover useful information. Whilst primary teachers are identified as key facilitators of inclusion, many feel unequipped to meet their needs (deBettencourt, 1999; Golder et al., 2005; Kearney & Durand, 1992; Rouse, 2008; Meister & Melnick, 2003).

Overall, an important implication from the present study is the need for further research exploring inclusive education. Despite legislation outlining the importance of inclusion on a global and national level, the literature review highlights a substantial gap in the empirical evidence-base surrounding what supports inclusive practice.

5.6 Conclusions

This research has addressed a key gap in existing literature and aligns with a key government agenda - providing new knowledge to help promote inclusive classrooms in the UK. Using Q-methodology, this study explores the range of views held by 14 primary school teachers in their first, second and third year of teaching about a valuable, yet complex and ambiguous topic. Participants sorted a 32-statement Q-set, arranging possible answers to the question *"what helps you to facilitate the inclusion of pupils with SEND in your classroom"* on a continuum from more helpful to less helpful. Findings show that participants felt most statements (24 out of 32) were helpful. By-person factor analysis was used to ascertain if any patterns existed within the sample and uncovered macroscopic similarities and differences between participants' Q sorts. Three viewpoints were identified and highlight the importance of the following areas:

- Viewpoint One: valued relationships and collaboration with pupils, parents, and staff, with a greater emphasis on a supportive school environment where diversity is celebrated.
- Viewpoint Two: valued experience, advice, and training, with a greater emphasis on having knowledge and skills to adapt the curriculum and advice and support from external professionals.
- Viewpoint Three: valued relationships, experience, and independent learning, with a greater emphasis on being open to learn and improve one's own teaching practice.

This suggests that a singular approach toward inclusion may not be appropriate, with a range of areas considered helpful for this participant sample. However, areas of consensus highlight the importance of teacher-pupil relationships and support from the SENCo for all three viewpoints. This study makes a unique contribution to research, addressing a key gap in the literature and developing our understanding of what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND. The findings provide several significant implications for professional practice, future research and offers ways forward for individuals with a desire to promote inclusive practice.

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Appendices

Appendix 1- Key Terminology used in Q-Methodology Research

Concourse	This involves a list of items that are relevant to the research question and describe what is currently known about a specific area of inquiry. The concourse is usually made up of statements, but some research has included singular words, pictures, or smells.
Q-set	This is a condensed version of the concourse. The finalised Q-set contains items particularly pertinent and representative when answering the research question. The Q-set is usually between 40 – 80 items. The Q-set may be developed using a structured or unstructured method.
Structured Q-set	A structured Q-set is developed using a framework or set of themes to arrange the statements.
Unstructured Q-set	An unstructured Q-set is developed by looking at the research topic as a whole.
P set	This describes the participant sample. Q research often works best when it is conducted with a specific population group.
Q-sort	This describes a participant's systematic ordering of items included in the Q-set onto a continuum related to a particular research topic. The continuum can range in length.
Q-Grid	This is the grid that participants place Q-set items and is a continuum from two poles. The items may be configured onto the grid using a fixed or free distribution.
Fixed Distribution	All items in the Q-set must fill all available spaces on the Q-grid continuum. A fixed distribution means that items will be forced into a bell-shaped curve with the least number of spaces at either pole of the continuum and the greatest number of spaces in the middle.
Free Distribution	Items in the Q-set can be placed at any point on the Q-grid continuum. There is not a restricted number of spaces that items can be placed.
Zero-salience line	The column that a participant feels most neutral about in their Q-sort
Factor	Groups of participants that configured their Q-sort in a similar way. Q research often identifies between 3 and 6 factors.
Factor Extraction	This is completed using a software program to correlate the Q-sort data and extract factors.
Factor Rotation	This is completed after factor extraction to ensure participants are associated with only one factor. This may include manual rotation, varimax rotation (automated program) or a combination of the two.
Varimax rotation	This is an automated process that seeks the mathematical best factor solution
Manual rotation	This involves the researcher rotating factors by-hand in any direction of size around their origin. Two factors can be rotated at a time.
Factor Array	A summary Q-sort for each factor, which is calculated using the z-score average of all the Q-sorts that loaded onto that factor.
Factor Interpretation	This describes the process of interpreting each factor arrays alongside qualitative data gathered to provide a holistic summary of all the viewpoints identified.
Confounding Q-sort	Q sorts that load onto more than one factor.
Non-significant Q-sort	Q sorts that do not load significantly onto any factors.
Eigenvalue	This indicates each factor's *'statistical strength and explanatory power'* (Watts & Stenner, 2012, p. 195).
Z score	This is the total weighted average for each item in the Q-set for each factor. The z score average is based on all the Q-sorts that were loaded onto that factor.

Appendix 2 – Search Summary & Strategy

My Research Question	What Helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with SEND?
Systematic Literature Review Question	What is known about primary school teachers (at the beginning of their careers) views on inclusion? • What is known about their self-efficacy / confidence in relation to the inclusion of pupils with SEND? • What is known about what helps them to facilitate the inclusion of pupils with SEND?
Places to Search for Information	SCOPUS, Psych INFO, ERIC, NuSearch
Inclusion Criteria	• Limited to 2003-2023 (last 20 years) • Participants: must include primary ECTs (extended to allow research with both primary and secondary ECTs) • ECTs must teach in mainstream schools not special schools • Studies must investigate the views of ECTs in relation to inclusion • Quantitative, qualitative and mixed methodology research designs included
Exclusion Criteria	• All studies prior to 2003 not included • Studies not available online excluded • Studies not written in English excluded • Studies completed outside of the UK excluded

Database	*Date of Search*	*Search Limits*	*Search Strategy*	*Results*	*Comments*
SCOPUS	12/7/23	• 2003 –2023 • English Language • UK based • Peer-reviewed articles	(Newly Qualified Teacher OR Recently Qualified Teacher OR Early Career Teacher) AND (inclu or inclusion or inclusive education or inclusive classroom) AND (Views OR Attitudes OR Viewpoints OR Perceptions OR Perspective OR Opinions OR Standpoints OR Outlook)	All geographical locations: 39 UK based research: 15	Following title screening – 5 studies
ERIC	12/7/23	• 2003 –2023 • English Language	(Newly Qualified Teacher OR Recently Qualified Teacher OR Early Career Teacher) AND	All geographical locations: 27 UK based research: 14	Following title screening – 4 studies

		• UK based • Peer-reviewed articles	(inclu or inclusion or inclusive education or inclusive classroom) AND (Views OR Attitudes OR Viewpoints OR Perceptions OR Perspective OR Opinions OR Standpoints OR Outlook)		
PsychINFO	12/7/23	• 2003 –2023 • English Language • Peer-reviewed articles	(Newly Qualified Teacher OR Recently Qualified Teacher OR Early Career Teacher) AND (inclu or inclusion or inclusive education or inclusive classroom) AND (Views OR Attitudes OR Viewpoints OR Perceptions OR Perspective OR Opinions OR Standpoints OR Outlook)	2	Following title screening – 1 study
NuSearch	12/7/23	• 2003 –2023 • English Language • Peer-reviewed articles • Open-access • Available online	(Newly Qualified Teacher OR Recently Qualified Teacher OR Early Career Teacher) AND (inclu or inclusion or inclusive education or inclusive classroom) AND (Views OR Attitudes OR Viewpoints OR Perceptions OR Perspective OR Opinions OR Standpoints OR Outlook)	509 results / 8 Identified of interest through manual searching	Following title screening – 6 studies

Appendix 3- Summary of Studies Identified During the Search Process

Reference	*Where it was Identified*	*When it was excluded*	*Reason for Exclusion*
Black-Hawkins & Amrhein (2014)	NuSearch	Full-text screening	This study **did not meet the geographical inclusion criteria** as it included ECTs from Germany as well as the UK. This study had to be excluded because the German education system is not the same as the UK education system. This study also only investigated challenges for ECTs not facilitating factors.
Westbrook et al (2015)	PsychINFO	Abstract screening	This study **did not meet the geographical inclusion criteria** as it investigated ECTs in primary classes in Tanzania. Thus it was excluded.
Hornby (2009)	NuSearch	Full-text screening	This study did not investigate ECT self-efficacy in relation to inclusion or what helps facilitate inclusion but instead looked cooperative learning specifically. This study **did not meet the research focus inclusion criteria** and was excluded.
Kershner (2016)	ERIC	Full-text screening	This study did not investigate ECT self-efficacy in relation to inclusion or what helps facilitate inclusion but instead looked at the relationship between inclusion, dialogue, and psychology. This study **did not meet the research focus inclusion criteria** and was excluded.
Kennelly et al (2008)	SCOPUS	Abstract screening	This study did not investigate ECT self-efficacy in relation to inclusion or what helps facilitate inclusion but instead looked at sustainability. This study **did not meet the research focus inclusion criteria** and was excluded. This study also investigated primary teacher trainees so did not meet the participant inclusion criteria.
Vickerman & Coates (2009)	ERIC	Full-text screening	This study did not include primary ECTs so **did not meet the participant inclusion criteria** (instead involved Secondary PE teacher trainees and recently qualified Secondary PE teachers).
Kendall (2019)	NuSearch	Full-text screening	This study **did not meet the participant inclusion criteria** as the participant sample included only one ECT along with other teaching professions such as a SENCo, experienced teachers and SLT. For this reason, the study was excluded.
Walton & Ruszynak (2020)	SCOPUS	Abstract screening	This study did not include primary ECTs so **did not meet the participant inclusion criteria**

Coates et al (2020)	NuSearch	Abstract screening	This study did not include primary ECTs so did not meet the participant inclusion criteria.
Richards (2010)	SCOPUS	Abstract screening	This study did not include primary ECTs (teacher trainees) and was not clear about the two small groups included in the study so did not meet the participant inclusion criteria.
Kennelly et al (2008)	SCOPUS	Abstract screening	This study did not investigate ECT self-efficacy in relation to inclusion or what helps facilitate inclusion but instead looked at sustainability. This study did not meet the research focus inclusion criteria and was excluded. This study also investigated primary teacher trainees so did not meet the participant inclusion criteria.
Reference	*Where it was Identified*	*Reason for inclusion*	
Barber & Turner (2007)	ERIC, SCOPUS	Investigated primary ECT views in relation to inclusion.	
Hodkinson (2006)	NuSearch	Investigated primary ECT views in relation to inclusion.	
Florain & Spratt (2013)	ERIC	Investigated primary (and secondary) ECT views in relation to inclusion.	
Norwich & Nash (2011)	SCOPUS, NuSearch	Investigated primary (and secondary) ECT views in relation to inclusion.	

Appendix 4 – Weight of Evidence Framework (Based on Gough, 2007)

Weight of Evidence A	***Weight of Evidence B***	***Weight of Evidence C***	***Weight of Evidence D***
generic judgment about the quality of evidence	*judgments about the research design*	*research relevance to the research question*	*overall judgement*

- Non-review specific judgement
- Coherence / integrity of the evidence
- Due to specific population groups, studies will not be limited to the presence of control groups / randomised designs / sample size
	- Review specific judgments
	- Relevance of research design
	- Due to limited research in this area research design will not be restricted
		- Review specific judgement
		- Relevance of evidence and analysis
		- Due to limited research in this area research that investigates primary and secondary ECTs together will be included
			- The extent to which the study contributes evidence to answering the review question
			  ○ Low (L)
			  ○ Medium (M)
			  ○ High (H)

Restrictions
- Research limited to last 20 years
- Clarity of research question and purpose
- Explicit reporting of results
- Limitations of the study considered
	Restrictions
	- Research must report ECT views in relation to inclusion including
	  ○ ECT Self-efficacy / confidence related to inclusion
	  ○ Factors believed to facilitate inclusion
	- Quantitative and qualitative data will support this research question
		Restrictions
		- Sample must include primary ECTs
		- Studies must investigate ECT views on inclusion
		- Studies must include a literature review
			This will be based on a variety of factors such as:
			- Participant Sample (must include primary ECTs)
			- Research focus (investigating ECT self-efficacy and facilitating factors)
			- Clear purpose of study outlined
			- Explicit reporting of results
			- Presence of literature review
			- Presences of limitations

Appendix 5 – Quality Appraisal of Eligible Studies (Gough, 2007; Pawson et al, 2003)

Research Study	***Weight of Evidence A***				***Weight of Evidence B***	***Weight of Evidence C***		***Weight of Evidence D***
	Transparency (clarity of purpose)	Accuracy	Accessibility (understandable)	Specificity (method specific quality)	Purposively (fit for purpose method)	Utility (relevant answers)	Propriety (legal and ethical)	Overall judgement
Florian & Spratt (2013)	H (outlined purpose of study)	M (some subjective interpretations)	H	H (provided analysis framework)	M (facilitating factors clearly outlined / ECT self-efficacy open to interpretation)	M (relevant answers to facilitating factors)	H	M
Norwich & Nash (2011)	H (outlined purpose of study)	H (raw data shared)	H	M (specific questionnaire items not shared)	M (ECT preparedness & facilitating factors outlined)	H (relevant answers to ECT self-efficacy / facilitating factors)	H	M
Barber & Turner (2007)	H (outlined purpose of study)	H (raw data shared)	H	H (provided specific details of questionnaire)	H (ECT self-efficacy & facilitating factors outlined)	H (relevant answers to ECT self-efficacy / facilitating factors)	H	H
Hodkinson (2006)	H (outlined purpose of study)	M (some subjective interpretations)	H	M (specific questionnaire items not shared)	H (facilitating factors outlined / ECT self-efficacy open to interpretation)	M (relevant answers to facilitating factors)	H	M

This weight of evidence framework was derived using numerical values with a three-point scale Low (1), Medium (2) and High (3). Whilst Pawson et al's (2003) model suggests giving scores out of 10, a three-point scale was chosen for consistency with Gough's weight of evidence framework.

Low (L)

Medium (M)

High (H)

Appendix 6 – The Concourse Developed for the Present Study

What Helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with SEND?

	Statement	Source
1.	***Staff Training***	Barber & Turner (2007)
2.	***Day to day experience with pupils in class***	Barber & Turner (2007)
3.	***Informal advice from experienced colleagues***	Barber & Turner (2007)
4.	***School-based induction***	Barber & Turner (2007)
5.	***Own research and reading***	Barber & Turner (2007)
6.	***Mentor support***	Barber & Turner (2007)
7.	***SENCo support***	Barber & Turner (2007)
8.	***Advice and support from EP***	Barber & Turner (2007)
9.	***Beliefs about the rights of the child***	Barber & Turner (2007)
10.	***Up-to date knowledge about SEND***	Barber & Turner (2007)
11.	***Celebrating pupil's strengths***	Barber & Turner (2007)
12.	***Skills in differentiation***	Barber & Turner (2007)
13.	***Previous experience***	Barber & Turner (2007)
14.	***Good support systems in the school for teacher and child***	Barber & Turner (2007)
15.	***Being fresh and open to new ideas***	Barber & Turner (2007)
16.	***Observing effective differentiation in practice***	Coates et al (2020)
17.	***Learning from experienced members of staff***	Coates et al (2020)
18.	***Better understanding of how to differentiate learning to cater for the needs of a range of pupils***	Coates et al (2020)
19.	***Building rapport with pupils***	Coates et al (2020)
20.	***Special school experience***	Coates et al (2020)
21.	***Teaching practices which include all children***	Florian & Spratt (2013)
22.	***Differentiation achieved through choice of activity for everyone***	Florian & Spratt (2013)
23.	***Language that expresses the value of all children***	Florian & Spratt (2013)
24.	***Using formal assessment to support learning***	Florian & Spratt (2013)
25.	***Teaching focuses on what is to be taught and how rather than who is to learn it***	Florian & Spratt (2013, p. 128)
26.	***Quality of relationships between teacher and pupils (trust)***	Florian & Spratt (2013)
27.	***Flexible approach – driven by the needs of the child rather than coverage of material***	Florian & Spratt (2013)
28.	***Seeking and trying out new ways of working***	Florian & Spratt (2013)
29.	***Committed to continuing professional development***	Florian & Spratt (2013)
30.	***Shifting focus from difference among learners to the learning of all children***	Florian & Spratt (2013)
31.	***Seeking pupil views***	Florian & Spratt (2013)
32.	***Offering a choice of tasks***	Florian & Rouse (2001)
33.	***Teaching meets all needs (adaptation of teaching style)***	Hodkinson (2006)

34.	***Have a policy that relates to inclusion***	Hodkinson (2006)
35.	***Positive aspects of diversity emphasised in the classroom***	Hodkinson (2006)
36.	***Training for teachers***	Hodkinson (2006)
37.	***Welcoming and supportive atmosphere***	Hodkinson (2006)
38.	***Support from outside agencies***	Hodkinson (2006)
39.	***Effective employment of support staff***	Hodkinson (2006)
40.	***Careful planning of lessons***	Hodkinson (2006)
41.	***Everybody given equal opportunity***	Hodkinson (2006)
42.	***Not just about pupils fitting in***	Hodkinson (2006)
43.	***Provision of additional resources***	Hodkinson (2006)
44.	***Treat all children as equals***	Hodkinson (2006)
45.	***Support with how to work with Tas***	Norwich & Nash (2011)
46.	***More hands-on teaching of SEND***	Norwich & Nash (2011)
47.	***Classroom observations (with a focus on SEND)***	Norwich & Nash (2011)
48.	***Readings books, articles, websites***	Norwich & Nash (2011)
49.	***Direct class teaching experience***	Norwich & Nash (2011)
50.	***Support with how to accommodate pupils in the classroom***	Norwich & Nash (2011)
51.	***Input from specialist teachings in SEND***	Norwich & Nash (2011)
52.	***SENCo support***	Norwich & Nash (2011)
53.	***More training on effective differentiation***	Norwich & Nash (2011)
54.	***Teacher-pupil relationship (knowing the child)***	Informal discussions with Trainee Educational Psychologists
55.	***Shadowing opportunities***	Informal discussions with Trainee Educational Psychologists
56.	***Training courses***	Informal discussions with Trainee Educational Psychologists
57.	***Communication with parents***	Informal discussions with Trainee Educational Psychologists
58.	***Senior leadership team support***	Informal discussions with Trainee Educational Psychologists
59.	***Supervision***	Informal discussions with Trainee Educational Psychologists
60.	***Observing examples of good practice***	Informal discussions with Trainee Educational Psychologists
61.	***Differentiated tasks***	Informal discussions with Trainee Educational Psychologists
62.	***Explaining and involving pupils in the decisions about what targeted support is offered to them***	(National Institute for Health and Care Excellence, 2022)
63.	***Clear guidance on how to identify individual pupils for targeted support based on their specific needs***	NICE guidance (2022)
64.	***A whole-school approach to support pupils which promotes a relationships and inclusion***	NICE guidance (2022)

65.	***Support for staff – protected time for supervision and continuing professional development***	NICE guidance (2022)
66.	***Planning and delivering a curriculum which build on pupil's previous learning***	NICE guidance (2022)
67.	***Staff sharing good practice and insights with each other***	Ofsted (2021)
68.	***Home-school relationships***	Ofsted (2021)
69.	***Pupil centred school support***	Ofsted (2021)
70.	***Multi-agency collaboration and partnership working***	Ofsted (2021)
71.	***Staff developing positive relationships with pupils***	Ofsted (2021)
72.	***The use of pictorial and diagrammatic stimuli***	Cooper (1996)
73.	***Highly structure written tasks to help pupils with writing difficulties***	Cooper (1996)
74.	***Differentiated tasks and materials***	Cooper (1996)
75.	***Whole class teaching strategies***	Cooper (1996)
76.	***Positive teacher attitudes towards pupils with SEND***	Ginevra et al (2022)
77.	***Identifying pupil's strengths***	Ginevra et al (2022)
78.	***Information about classification and identifying SEND***	Kamens et al (2003)
79.	***Training on pupils with specific area of SEND***	Kamens et al (2003)
80.	***Background information about pupils***	Kamens et al (2003)
81.	***Information from previous teachers and what a pupil can realistically achieve***	Kamens et al (2003)
82.	***Information about how to deliver the curriculum in an appropriate way***	Kamens et al (2003)
83.	***Training on strategies for adapting the curriculum for pupils with SEND***	Kamens et al (2003)
84.	***Administrative support (scheduled time for planning)***	Kamens et al (2003)
85.	***Listening to the pupil***	Morgan et al (2023)
86.	***Employing PACE***	Morgan et al (2023)
87.	***Reviewing and revising provision***	Morgan et al (2023)
88.	***Prioritise relationship***	Morgan et al (2023)
89.	***Be open to change and to learn***	Morgan et al (2023)
90.	***Build in supervision***	Morgan et al (2023)
91.	***Employing PACE (playfulness,***	Morgan et al (2023)
92.	***Doing with the pupil rather than to***	Morgan et al (2023)
93.	***Effective deployment of TA***	Losberg & Myers (2021)
94.	***Teacher flexibility***	Losberg & Zwozdiak-Myers (2021)
95.	***Whole-class approaches***	Losberg & Zwozdiak-Myers (2021)
96.	***Emphasis on Learner's Capabilities***	Losberg & Zwozdiak-Myers (2021)
97.	***Commitment to on-going Professional Development***	Losberg & Zwozdiak-Myers (2021)
98.	***TA Interventions***	Losberg & Zwozdiak-Myers (2021)
99.	***Ability-based Tasks***	Losberg & Zwozdiak-Myers (2021)
100.	***Family involvement***	Banks (2023)
101.	***Staff training***	Rose (2001)

102.	***Support and resources to facilitate inclusion***	Rose (2001)
103.	***Offering a choice of tasks***	Hehir (2012)
104.	***Daily lessons that are thoughtfully planned***	Hehir (2012)
105.	***Clear goals and objectives***	Hehir (2012)
106.	***Activities are varied based on prior knowledge***	Hehir (2012)
107.	***Peer or Professional Support***	Hehir (2012)
108.	***Response to Intervention***	Hehir (2012)
109.	***Multi-tiered system of student support***	Hehir (2012)
110.	***Explicit Instruction***	Hehir (2012)
111.	***Modifications and accommodations as needed***	Hehir (2012)
112.	***Response to Intervention***	Hoppey & McLeskey (2014)
113.	***Multi-tiered system of student support***	Hoppey & McLeskey (2014)
114.	***Explicit Instruction***	Kilgore et al (2002)
115.	***Modifications and accommodations as needed***	Kilgore et al (2002)
116.	***Provide multiple means of representation, engagement, action / expression***	National Center on Universal Design for Learning (2014)
117.	***Assigning special jobs or responsibilities was highly regarded as a tool for building an inclusive classroom environment.***	Bolourian et al (2022)
118.	***Recognising student talents, strengths, and interests w***	Bolourian et al (2022)
119.	***understanding of the observable characteristics***	Bolourian et al (2022)
120.	***evidence-based behaviour management strategies***	Bolourian et al (2022)
121.	***Physical classroom - space for movement, purposeful seating, proximity to the teacher***	Bolourian et al (2022)
122.	***home-school collaboration and communication for building positive relationships***	Bolourian et al (2022)
123.	***"ordinary" daily classroom practices (e.g., consistency, greeting students by name at the door***	Bolourian et al (2022)
124.	***Training***	Bolourian et al (2022)
125.	***Training on specific areas of SEND (e.g. ADHD)***	Toye et al (Toye et al., 2019)
126.	***Educational Psychologist support***	Toye et al (2019)
127.	***Reducing stigma around types of SEND***	Toye et al (2019)
128.	***Staff Training***	Schuelka (2018)
129.	***Whole school approach (which promotes inclusion)***	Schuelka (2018)
130.	***Leaders modelling and demonstrating inclusive education***	Schuelka (2018)

Appendix 7 – The Initial Q-Set (Prior to the Pilot Study)

	Statement	*Source*
1.	*Teacher-Pupil Relationship*	Information discussions with Educational Professionals / Peer Review Morgan et al (2023) Coates et al (2020) Ofsted (2021)
2.	*Staff Training*	Information discussions with Educational Professionals / Peer Review Rose (2001) Kamens et al (2003) Barber & Turner (2007) Hodkinson (2006) Norwich & Nash (2011)
3.	*Whole School policies and systems that promote inclusion*	Information discussions with Educational Professionals / Peer Review Barber & Turner (2007) Hodkinson (2006) Norwich & Nash (2011) Schuelka (2018)
4.	*Advice and support from Professionals*	Information discussions with Educational Professionals / Peer Review Barber & Turner (2007) Hodkinson (2006) Norwich & Nash (2011) Toye et al (2019)
5.	*Day-to-day experience in the classroom*	Information discussions with Educational Professionals / Peer Review Barber & Turner (2007) Norwich & Nash (2011)
6.	*Independent research and reading*	Information discussions with Educational Professionals / Peer Review Barber & Turner (2007) Norwich & Nash (2011)
7.	*Teacher Support and Supervision*	Information discussions with Educational Professionals / Peer Review NICE guidance (2022) Morgan et al (2023)
8.	*Teacher-Parent Communication*	Information discussions with Educational Professionals / Peer Review Ofsted (2021) Morgan et al (2023) Bolourian et al (2022)
9.	*Listening to the pupil and involving then in decisions*	Information discussions with Educational Professionals / Peer Review NICE guidance (2022) Morgan et al (2023)
10.	*Positive teacher attitudes toward pupils with SEND*	Information discussions with Educational Professionals / Peer Review Cooper (1996) Florian & Spratt (2013)
11.	*Knowledge and skills to modify the curriculum*	Information discussions with Educational Professionals / Peer Review Hehir (2012)
12.	*Protected time for continuing professional development*	NICE guidance (2022) Losberg & Zwozdiak-Myers (2021) Florian & Spratt (2013)
13.	*Supportive school environment where diversity is celebrated*	Information discussions with Educational Professionals / Peer Review Hodkinson (2006)
14.	*Shared Strategies to adapt the curriculum for pupils with SEND*	Information discussions with Educational Professionals / Peer Review Kamens et al (2003)
15.	*Reviewing and revising provision*	Information discussions with Educational Professionals / Peer Review Morgan et al (2023)

16. *Differentiated tasks and material*	Information discussions with Educational Professionals / Peer Review Cooper (1996) Kilgore et al (2002)
17. *Observing examples of good practice*	Information discussions with Educational Professionals / Peer Review Norwich & Nash (2011)
18. *Identifying Pupil Strengths*	Information discussions with Educational Professionals / Peer Review Ginevra et al (2022) Bolourian et al (2022)
19. *Informal advice from colleagues*	Information discussions with Educational Professionals / Peer Review Barber & Turner (2007) Hehir (2012)
20. *Careful planning of lessons that build on prior knowledge*	Florian & Spratt (2013) Hehir (2012) Hodkinson (2006)
21. *Time and support planning inclusive lessons*	Information discussions with Educational Professionals / Peer Review Florian & Spratt (2013) Rose (2001)
22. *Effective deployment of teaching assistants*	Information discussions with Educational Professionals / Peer Review Losberg & Zwozdiak-Myers (2021) Hodkinson (2006)
23. *Knowledge of the graduated response to SEND*	Information discussions with Educational Professionals / Peer Review Kamens et al (2003)
24. *Family involvement*	Information discussions with Educational Professionals / Peer Review Losberg & Zwozdiak-Myers (2021) Banks (2023)
25. *Extending what is available for everybody (multiple means of engagement, action, expression)*	Information discussions with Educational Professionals / Peer Review Florian & Spratt (2013) Universal design for learning (2014) Cooper (1996) Florian & Rouse (2001) Hehir (2012)
26. *Knowledge about Special Educational Needs*	Information discussions with Educational Professionals / Peer Review Kamens et al (2003) Toye et al (2019)
27. *Support from the SENCo*	Barber & Turner (2007) Norwich & Nash (2011)
28. *Information from previous class teacher about pupil's strengths & needs*	Information discussions with Educational Professionals / Peer Review Kamens et al (2003) Bolourian et al (2022) Ginevra et al (2022)
29. *Prior Special School Experience*	Coates et al (2020) Norwich & Nash (2011)
30. *Collaborative Work Environment*	Hodkinson (2006) Schuelka (2018)
31. *Knowledge of Inclusion Policy*	Hodkinson (2006)
32. *Teacher Self-Efficacy*	Information discussions with Educational Professionals / Peer Review
33. *Senior Leadership Team Support*	Information discussions with Educational Professionals / Peer Review Schuelka (2018)
34. *Being open to learn*	Information discussions with Educational Professionals / Peer Review Barber & Turner (2007) Losberg & Zwozdiak-Myers (2021) Morgan et al (2023)

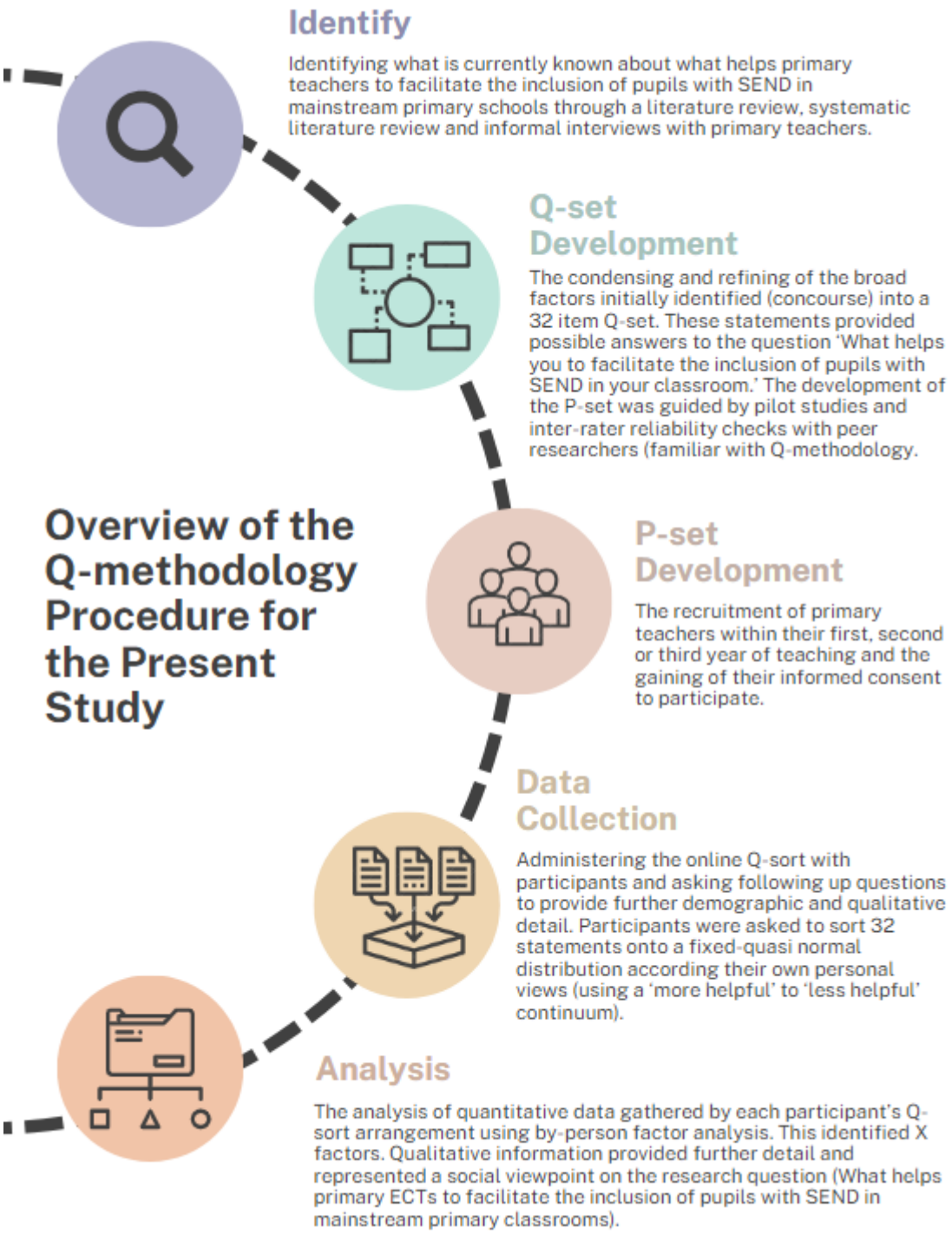
Appendix 8 – The Finalised 32-Statement Q-Set

1. Teacher-pupil relationship
2. Staff training & opportunities for CPD
3. Whole School Policies & Systems that Promote Inclusion
4. Advice & Support from External Professionals
5. Day-to-day Experience in the Classroom
6. Independent Research & Reading
7. Teacher Mentoring or Supervision
8. Teacher-Parent Communication
9. Listening to Pupils & Involving them in Decisions about them
10. Positive Teacher Attitudes Toward Pupils with SEND
11. Knowledge & Skills to Adapt the Curriculum
12. Supportive School Environment where Diversity is Celebrated
13. Shared Strategies to Adapt the Curriculum for Pupils with SEND
14. Reviewing & Revising Provision
15. Extending What is Available for all Pupils in the Classroom
16. Observing Examples of Good Practice
17. Identifying Pupil Strengths
18. Careful Planning of Lessons which Build on Pupil's Prior Knowledge
19. Time & Support Planning Inclusive Lessons
20. Effective Deployment of Teaching Assistants
21. Knowledge of the Graduated Response to SEND
22. Family Involvement
23. Knowledge about Special Educational Needs
24. Accessing Support from the SENCo
25. Information from Previous Class Teacher about Pupil Strengths & Needs
26. Prior Special School Experience
27. Collaborative Work Environment
28. Knowledge of Inclusion Policy
29. Teacher Confidence (with including pupils with SEND)
30. Senior Leadership Team Support Promoting Inclusion
31. Being Open to Learn & Improve your Teaching Practice
32. Informal support, Advice & Guidance from Colleagues

Appendix 9 – Research Timeline for the Present Study

Action	Time scale	Planned Action	Potential issues / risks	Proposed contingency	Outcome
Pre-study Considerations	April – July 2023	Secure ethical approval for the present study. Complete literature review and develop the concourse (possible items to be used in the Q-set). Develop an action plan. Create a research poster (following ethical guidelines).	Delayed ethical approval. Difficulties identifying items to be used in the Q-sort. Time pressure difficulties (balancing placement and university requirements)	Review the research aims and question. Review the methodology. Draw upon guidance from university (e.g., tutorials)	→ Ethical approval obtained. (Appendix 18) → Concourse developed. (Appendix 6) → Research Poster created. (Appendix 13)
Participant Recruitment Phase	August – December 2023	Identify contacts to disperse research opportunity to target population. Draw upon professional and personal contacts. Provide further information and consent forms to interested participants. Obtain informed consent from participants	The researcher does not receive emails from interested participants (difficulties obtaining a large enough sample) Difficulties finding a time for the participant and researcher to meet for an MS Teams meeting	Possibility to widen the participant inclusion criteria (due to difficulties with participant recruitment, the inclusion criteria was extended to primary teachers in the first, second and third year of teaching). Possibility for the Q-sort to be completed independently (providing participants with an information pack)	→ P set inclusion criteria widened. → Sixteen interested participants emailed the researcher for further information.
Pilot Study Phase	August – September 2023	Conduct pilot study and peer reviews to test the study. Obtain informed consent from pilot participants. Identify and action areas of improvement. Finalise the Q-set.	Difficulties obtaining pilot participants. Difficulties with the Q-set items (unclear, ambiguous, overlapping) Difficulties with the online program QTip (difficult to use / understand / navigate) Time pressure difficulties and constraints	Draw upon personal and professional contacts. Follow-up pilot study if required (if multiple actions and improvements are required) Draw upon guidance from university (e.g., tutorials)	→ Pilot Study completed with four participants. → Feedback obtained and improvements actioned (Appendix 12)
Data Collection Phase	September-December 2023	Arrange an MS teams meeting with participants who have provided informed consent. Send participants their unique website link to complete the online Q-sort. Ask participants follow-up questions. Debrief participants.	Difficulties arranging an MS teams meeting with participants. Participants do not attend the MS teams meeting. The online Q-sort does not work, or the results are not saved. Internet difficulties.	Researcher flexibility- ask participants when would be best for them to complete the study (e.g., after school, in planning time, during half term). Send participants an MS teams calendar link and a reminder email about the study. Remind participants to save the Q-sort and check it has been uploaded before ending the meeting.	→ Data collected from fourteen participants.
Analysis Phase	January – February 2024	Download computer software to complete the by-person factor analysis (e.g., PQ Method) Draw upon university contacts that may be able so support this phase (e.g., peer support)	Software difficulties. Time pressure difficulties and constraints. Researcher error or bias when completing the analysis phase.	Draw upon guidance from university and peer support. Inter-rater reliability checks with peer researchers. If the PQ method software does not work, access IT help / use a different software.	→ Factor Analysis completed. → Peer Review Completed.
Final Write-up Phase	July 2023 – May 2024	Create an action plan to break down each section into manageable chunks. Write up thesis.	Time pressure difficulties and constraints	Draw upon guidance from university and peer support.	→ Thesis Completed.

Appendix 10 – Overview of the Q Procedure for the Present Study



Appendix 11 – The Pilot Study Consent Form

School of Psychology

Pilot Study Consent Form

University of Nottingham
UK | CHINA | MALAYSIA

Title of Project: A Q-Methodological study: What helps Primary Early Careers Teachers to facilitate the inclusion of pupils with special educational needs and disabilities.

Ethics Approval Number: S1520

Researcher: Jessica Butler [jessica.butler@nottingham.ac.uk]

Research Supervisor: Yvonne Francis [yvonne.francis@nottingham.ac.uk]

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily (if applicable)? YES/NO
- Do you understand that you are free to withdraw from the study? (At any time and without giving a reason) YES/NO
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part.

I understand that I am free to withdraw at any time."

Signature of the Participant: Date:

Name (in block capitals)

I have explained the study to the above participant, and he/she has agreed to take part.

Signature of researcher: Date:

Appendix 12 – The Pilot Study Information Sheet

School of Psychology

Pilot Study Information Sheet

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Title of Project: Whelps Primary Teachers at beginning of their Career to facilitate the inclusion of pupils with Special Educational Needs and Disabilities: A Q-methodology Study.

Ethics Approval Number: S1520

Researcher: Jessica Butler */ Jessica.butler@nottingham.ac.uk*

Supervisor: Yvonne Francis / yvonne.francis@nottingham.ac.uk

I am a Trainee Educational Psychologist, currently completing my Doctorate in Applied Educational Psychology at the University of Nottingham. As part of my studies, I will be completing a research study which hopes to further our understanding of *what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with Special Educational Needs or Disabilities (SEND).*

This is an invitation to take part within the pilot phase of my study. Before you decide if you wish to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

This research uses Q methodology to explore the diverse and subjective views held by ECTs. If choose to participate, you will be asked to sort around 40 different statements that are possible answers to the question *'What helps you to facilitate the inclusion of pupils with SEND in your classroom.'* You will be asked to sort the items on a scale from most helpful to least helpful. This study follows a 'fixed distribution' so there will be a limited number of items you can place at each level of the scale, with the greatest number of items in the middle and the least number of items end of the scale.

The picture below helps to show what is meant by this process. Importantly, the extent to which you feel the item is helpful in facilitating the inclusion of pupils with SEND will depend on where you place the item on the scale. The finished distribution of items is called a 'Q-sort.'

After you have finished the Q-sort, you will be asked a few further questions such as:

- How did you train to become a primary teacher?
- How important is inclusion to you?
- Why did you choose your highest and lowest choice?

Q-methodological studies use both qualitative (follow-up answers) and quantitative (Q-sort) data collection methods and allow the exploration of complex topics from a specific population's viewpoint (in this case the inclusion of pupils with SEND from the viewpoints of primary ECTs). When all the participants have completed their Q-sort, the data will be analysed collectively to identify key themes and viewpoints shared by the participant sample group.

This research will take place online via a Microsoft Teams Call with the researcher. It is estimated that the Q-sort procedure will last between 30 to 6 minutes. Participation in this study is voluntary and you are under no obligation to take part. You are free to withdraw at any point before or during the study. All data collected will be kept confidential and used for research purposes only. It will be stored in compliance with the Data Protection Act.

As an online participant in this research that will take place on MS Teams, we are obliged to make you aware that there is always a potential (albeit low) risk of intrusion by outside agents, for example through hacking, and therefore the possibility of being identified.

If you have any questions or concerns, please do not hesitate to ask now. We can also be contacted after your participation at the above address.

If you have any complaints about the study, please contact:

Stephen Jackson (Chair of Ethics Committee)

stephen.jackson@nottingham.ac.uk

Appendix 13 – The Pilot Study Review Form

Name:

Date:

Role: e.g. Trainee Educational psychologist and peer Q-methodology researcher

Peer Review Task: Please read the information below / have a go at accessing the online link sent to your email. It would be much appreciated if you could then answer the follow-up questions.

Information About the Study

Research Question: ***Q-methodological study: What helps Primary Early Career's Teachers to facilitate the inclusion of children with Special Educational Needs and Disabilities.***

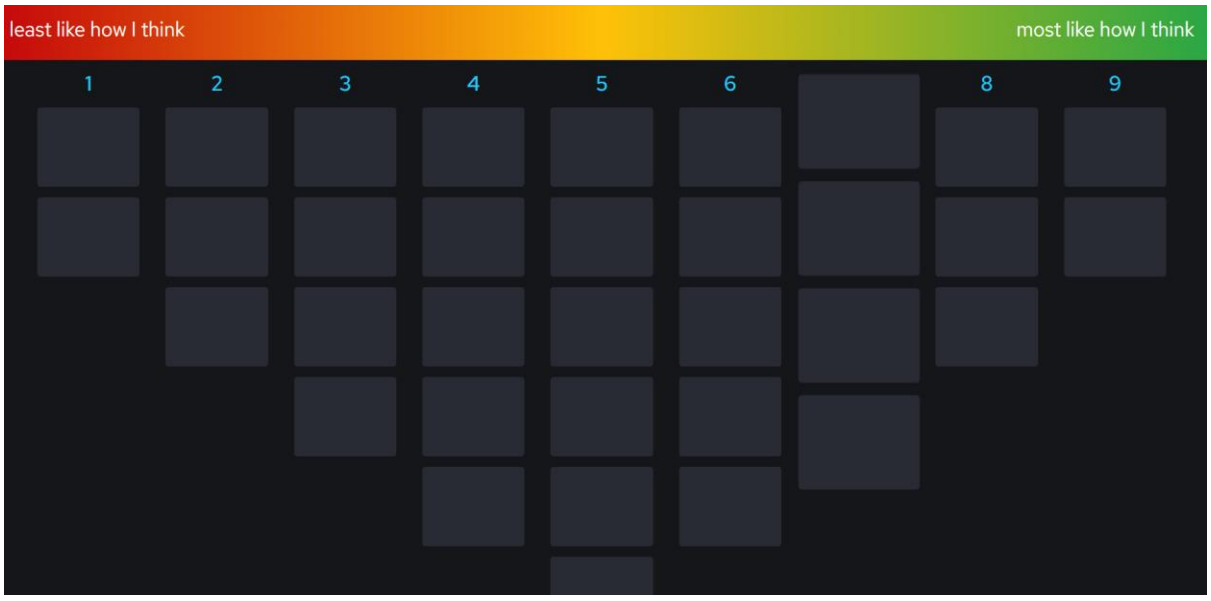
Aim of Task:

Participants will be asked to attend an MS Teams meeting with the researcher to help guide them through the process. The task will include two parts.

Step 1. Participants will be asked to sort 34 statements (Table 1) on a continuum.

As a Primary ECT, I think _____ helps me to facilitate the inclusion of pupils with SEND in my classroom.

Less Helpful ---------- More Helpful



Step 2. Participants will be asked follow-up questions (Table 2)

Table 1: Q-Set (34-Statements)

	Statement	***Comment***
1	Teacher-Pupil Relationship	
2	Staff Training	
3	Whole School Policies & Systems that Promote Inclusion	
4	Advice & Support from Professionals	
5	Day-to-day Experience in the Classroom	
6	Independent Research & Reading	
7	Teacher Support & Supervision	
8	Teacher-Parent Communication	
9	Listening to Pupils & Involving them in Decisions about them	
10	Positive Teacher Attitudes Toward Pupils with SEND	
11	Knowledge & Skills to Modify the Curriculum	
12	Protected Time & Opportunities for Continuous Professional Development	
13	Supportive School Environment where Diversity is Celebrated	
14	Shared Strategies to Adapt the Curriculum for Pupils with SEND	
15	Reviewing & Revising Provision	
16	Differentiated Tasks & Materials	
17	Observing Examples of Good Practice	
18	Identifying Pupil Strengths	
19	Informal Advice from Colleagues	
20	Planning Lessons which Build on Pupil's Prior Knowledge	
21	Time & Support Planning Inclusive Lessons	
22	Effective Deployment of Teaching Assistants	
23	Knowledge of the Graduated Response to SEND	
24	Family Involvement	
25	Extending what is Available for Everybody in the Class (range of tasks / resources / guidance)	
26	Knowledge about Special Educational Needs	
27	Accessing Support from the SENCo	
28	Information from Previous Class Teacher about Pupil Strengths & Needs	
29	Special School Experience	
30	Collaborative Work Environment	
31	Knowledge of Inclusion Policy	
32	Teacher Self-Efficacy	
33	Senior Leadership Team Support	
34	Being Open to Learn	

Table 2: Post Q-Set Questionnaire

Participant Number	
Age	
Gender	
How did you train to become a teacher? *E.g., Teacher First, PGCE*	
How many years have you been teaching post-qualification?	
What year group do you currently teach?	
What county area do you currently teach?	
On a scale from 0-5, where 0 is not important and 5 is very important. ***How important is inclusion to you?*** *(please underline)*	*1* *2* *3* *4* *5* *Very low* *Low* *Medium* *High* *Very high*
How would you rate your level of ***confidence*** *with regards to the inclusion of pupils with SEND within the mainstream environment?* *(please underline)*	*1* *2* *3* *4* *5* *Very low* *Low* *Medium* *High* *Very high*
Which statements did you sort as ***most helpful*** *and* ***why?***	
Which statements did you sort as ***least helpful*** *and* ***why?***	
Are there any statements that you did not understand or did not make sense to you?	
Is there anything that you would have added to the Q-sort? E.g., statements that you felt were not included.	

Peer Review Feedback

1. Did any statements in the Q-set express **similar or overlapping ideas/concepts**?

Please provide the statement numbers of any statements that seemed *similar / overlapping.*

2. Did you feel the Q-set statements were **clear**?

Please provide the statement numbers of any that seemed *unclear.*

3. Do you feel any of the statements could be **interpreted** in different ways?

Please provide the statement numbers of any that could be *interpreted in different ways.*

4. Do you feel that the Q-set **adequately covered** the broad range of factors that help teachers to facilitate the inclusion of pupils with SEND?

Did you feel there were any *key areas missing*? Please provide details.

5. Is it possible that you may hold some bias in your interpretation of the Q-set? If so, what might your biases be?

General Comments

6. Overall, how did you find the Q-set and sorting activity?

7. Do you have any suggestions or comments that would further improve the finalised Q-set?

Appendix 14 – Collated Feedback from the Pilot Study

The different colours fonts are used to indicate the four different participants included in the pilot study

Comments regarding the Q-Sorting PROCESS	**SUGGESTIONS** There are a lot of statements to sort, and it might present as quite overwhelming… Stress that time needed to reflect on each individual card rather than getting out all the set and scanning across. This can be done once all the cards have been placed but I really feel that each needs to be considered individually. There was a slight glitch at one point where it prevented me clicking and dragging a card, but this was resolved by clicking the next and previous card buttons and trying the click and drag action again. With regards to the numbers on the cards, I wonder if it would be helpful for a brief note to be added so that participants are aware that these numbers are not important to them and that they should avoid letting them influence how they sort the cards in any way. Perhaps stating that they are for the researcher's use during data analysis. **STRENGTHS** Good – love the online platform, easy to use How snazzy is this q-sort programme! Very easy to use. I really enjoyed filling this in. The software was visually engaging whilst remaining straightforward to use. I really appreciated being able to click and drag the statements from one column to another an unlimited amount of time until I was happy with the final sort. I really like how the cards are presented randomly and not in number order. I also feel that the presence of the question at the top throughout meant that I could double check I was answering the specific question. The post-sort questions are great and allow you to clarify and explore any parts of the sort that you feel are particularly pertinent and also give the participant opportunity to explain their reasoning/choices. At first reading, they seem quite similar, but this is not the case. Each one is very important and, whilst there is some overlap, each one does have a different meaning.
Comments regarding any MISSING statements	Definitely no areas missing – very thorough and more than adequate I did not feel any areas were missing during or after the sort. Good coverage No

Comments regarding the CLARITY of statements	**SUGGESTIONS** I think you could explain what exactly you mean by Teacher self-efficacy, e.g. confidence in ability to……. (Perhaps definition needed for this?) Perhaps consistency between CHILD and PUPIL? Card 9 'Themselves?' 'Decisions that impact them?' statement 25 (extending what is available...) number 34 (being open to learn) - is that the teacher being open to learn or the pupils? **STRENGTHS** • I thought the statements were written concisely and using straightforward, unambiguous language and terms which the target population would likely be familiar with.
Comments regarding any OVERLAPPING statements	26 and 31 – could specify inclusion policy for that school? ○ Knowledge about Special Educational Needs ○ Knowledge of inclusion policy Could 12 and 2 be combined under the 'umbrella' of CPD (Continuing Professional Development)? ○ Staff Training ○ Protected Time & Opportunities for Continuous Professional Development (could these be overlapping?) I'm wondering if 19, 33 and 27 could be considered similar to 4 as colleagues, SENCos, SLT (Senior Leadership Team) could all be classed as professionals, would it be beneficial to combine these? ○ Informal Advice from Colleagues ○ Senior Leadership Team Support ○ Accessing Support from the SENCo ○ Advice & Support from Professionals Perhaps 12 and 21- use of the word 'time'. ○ Time & Support Planning Inclusive Lessons ○ Protected Time & Opportunities for Continuous Professional Development Possibly overlapping - 14,16,11 ○ Shared Strategies to Adapt the Curriculum for Pupils with SEND ○ Differentiated Tasks & Materials ○ Knowledge & Skills to Modify the Curriculum
Comments regarding any statements that could be INTERPRETED DIFFERENTLY	34 – being open to learn (as the teacher? Or the pupils?) 5 – day to day experience (For the teacher? Or the pupils?) Perhaps in relation to how one defines 'inclusion' could they be interpreted in different ways?

Appendix 15 – Recruitment Poster

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Educational Psychology Research

What helps Early Career Teachers (ECT) to facilitate the inclusion of pupils with SEND in Primary Schools?

Who? If you are in your 1st, 2nd, or 3rd year of primary teaching - this is an invitation for you to share your views!

What? This research will be completed online and will involve participants sorting a number of possible answers to the above question on a scale from 'most helpful' and 'least helpful'. Participants will also be asked a few follow-up questions, such as 'can you explain your top choice.' It will take approximately 30-40mins.

When? Autumn Term 2023

How? If you are interested in taking part in this online research study please contact the email below.

jessica.butler@nottingham.ac.uk

Appendix 16 – Information Sheet

School of Psychology

Information Sheet

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Title of Project: What helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with Special Educational Needs and Disabilities: A Q-Methodology Study.

Ethics Approval Number: S1520

Researcher: Jessica Butler

Contact Details: Jessica.butler@nottingham.ac.uk

Supervisor: Yvonne Francis

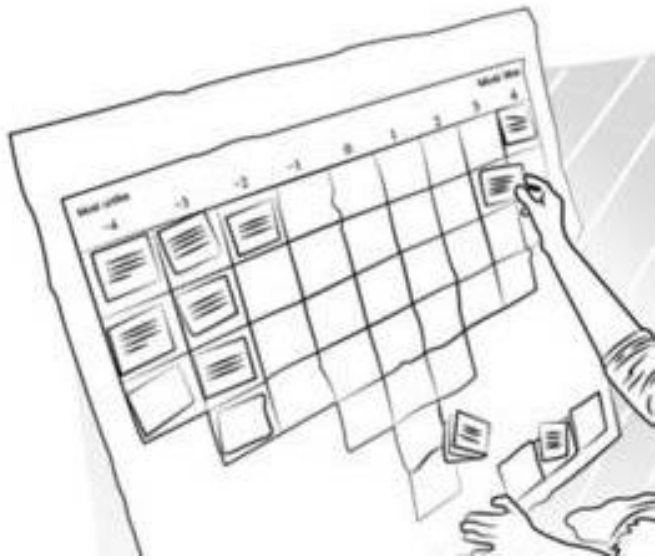
yvonne.francis@nottingham.ac.uk

I am a Trainee Educational Psychologist, currently completing my Doctorate in Applied Educational Psychology at the University of Nottingham. As part of my studies, I will be completing a research study which hopes to further our understanding of *what helps primary Early Career's Teachers (ECT) to facilitate the inclusion of pupils with Special Educational Needs or Disabilities (SEND).*

This is an invitation for Primary Teachers in their first, second and third year of teaching to take part in a research study.

The reason you have been approached to take part in this research is because you are an ECT in a primary school mainstream setting. As there is little knowledge on what ECTs think about this area of investigation, this research aims to fill this gap. Before you decide if you wish to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

This research uses Q methodology to explore the diverse and subjective views held by ECTs. If choose to participate, you will be asked to sort around 40 different statements that are possible answers to the question *'What helps primary Early Career Teachers to facilitate the inclusion of pupils with SEND.'* You will be asked to sort the items on a scale from most helpful to least helpful. This study follows a 'fixed distribution' so there will be a limited number of items you can place at each level of the scale, with the greatest number of items in the middle and the least number of items end of the scale. This picture below helps to show what is meant by this process. Importantly, the extent to which you feel the item is helpful in facilitating the inclusion of pupils with SEND will depend on where you place the item on the scale. The finished distribution of items is called a 'Q-sort.'



After you have finished the Q-sort, you will be asked a few further questions such as:

- How did you train to become a primary teacher?
- How important is inclusion to you?
- Why did you choose your highest and lowest choice?

Q-methodological studies use both qualitative (follow-up answers) and quantitative (Q-sort) data collection methods and allow the exploration of complex topics from a specific population's viewpoint (in this case the inclusion of pupils with SEND from the viewpoints of primary school teachers at the beginning of their careers). When all the participants have completed their Q-sort, the data will be analysed collectively to identify key themes and viewpoints shared by the participant sample group.

This research will take place online via a Microsoft Teams Call with the researcher. It is estimated that the Q-sort procedure will last between 30 to 6 minutes. Participation in this study is voluntary and you are under no obligation to take part. You are free to withdraw at any point before or during the study. All data collected will be kept confidential and used for research purposes only. It will be stored in compliance with the Data Protection Act.

As an online participant in this research that will take place on MS Teams, we are obliged to make you aware that there is always a potential (albeit low) risk of intrusion by outside agents, for example through hacking, and therefore the possibility of being identified.

If you have any questions or concerns, please do not hesitate to ask now. We can also be contacted after your participation at the above address.

If you have any complaints about the study, please contact:

Stephen Jackson (Chair of Ethics Committee)

stephen.jackson@nottingham.ac.uk

Appendix 17 – Participant Consent Form

School of Psychology

Consent Form

University of Nottingham
UK | CHINA | MALAYSIA

Title of Project: What helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with Special Educational Needs and Disabilities: A Q-Methodology Study.

Ethics Approval Number: S1520

Researcher: Jessica Butler [jessica.butler@nottingham.ac.uk]

Research Supervisor: Yvonne Francis [yvonne.francis@nottingham.ac.uk]

The participant should answer these questions independently:

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily (if applicable)? YES/NO
- Do you understand that you are free to withdraw from the study? (At any time and without giving a reason) YES/NO
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time."

Signature of the Participant: *Date:*

Name (in block capitals)

I have explained the study to the above participant, and he/she has agreed to take part.

Signature of researcher: *Date:*

Appendix 18 – The Researcher's Script for the Present Study

Introduction

- Thank you so much for your participation in this study
- My name is Jess and I'm going to talk you through the two tasks involved in this study
- The first task involves a card sorting activity.
- This will be completed online using the link I sent you via email.
- And the second task will involve a short follow-up questionnaire after you have completed the card sort.

Explanation of the Q-sort

- The card sorting activity will involve sorting 32 statements on a continuum from 'more helpful' to 'less helpful'. The cards are all possible 'answers' to the question what helps you to facilitate the inclusion of pupils with SEND in my classroom.
- If you feel the statement does help you to facilitate the inclusion of pupils with, SEND in your classroom then you will put it toward the right.
- If you feel it is less helpful you will put it toward the left.
- The cards have been shuffled randomly in the pack, so the statement numbers aren't important.
- You will notice that there is a fixed distribution to the grid. This means that you can only put one card at the highest space on the continuum and one card at the lowest space on the continuum. You can place the most cards in the middle of the continuum.
- You may find it easiest to read all the statements first or you could place the cards as you go and re-order them however you like.
- Remember, this study is asking for your views so there is no right or wrong answers – just what is helpful for you! Whatever helps you to facilitate the inclusion of pupils with SEND in your classroom.
- There is no set time for this task, it is until you feel happy with your overall configuration. When you've placed all the cards in the slots you can then review your final configuration and make any other changes you feel are appropriate to reflect you view. For example, you may want to swap some cards round at the end.

Preparing for the Q-sorting activity

- Feel free to turn off your camera and microphone whilst you complete the online card sort and then turn your camera back on or give me a message when you have completed it and are ready to move onto the follow-up questionnaire.
- Do you have any questions?
- Do you want to click on the link and check that everything is working?
- I'll be here if you need any help – just pop back on or write in the chat
- (Participant and researcher turned off their camera) - Participant completed online Q-sort.

Follow-up Questionnaire & Debrief

- Participant indicated to researcher that they had finished.
- Thank you for completing the online Q-sort, I'm now going to ask you a few follow-up questions. Your personal details will be kept anonymous. Would you mind sharing your age? Sex? Etc (The researcher asked all the questions on the questionnaire)
- Thank you for your participation. I will now email you a debrief form. If you have any further questions about the study don't hesitate to contact me. Many thanks again.

Appendix 19 – Debrief Sheet

School of Psychology

Debrief Sheet

University of Nottingham
UK | CHINA | MALAYSIA

Title of Project: What Helps Primary School Teachers at the Beginning of their Career to Facilitate the Inclusion of Pupils with Special Educational Needs and Disabilities: A Q-methodology Study.

Information about the Research Rationale

This study explored the viewpoints of primary school teachers at the beginning of their career about what helps them to facilitate the inclusion of pupils with Special Educational Needs in mainstream primary classrooms. All schools have a duty under the Equality Act (2010), United Nations (2007) and SEND code of practice (DfE/DoH, 2015), to protect all individuals from discrimination and promote inclusive education for all. However, the SEND system is critiqued for not going far enough, with limited research and guidance on how children can be better included in mainstream schools (Crocker, 2023). Moreover, many teachers feel that they are not given sufficient training, support, and resources to be effective at facilitating an inclusive education (DfE, 2018; Singal, 2009; Schuelka, 2018).

Through gathering the views of teachers at the beginning of their primary teacher career, this study hopes to uncover what helps them to facilitate the inclusion of pupils with SEND in their classrooms. The implication of this research offers a way forward in ensuring future initiatives regarding the inclusion of SEND pupils are developed and delivered in a way that is likely to be supported by primary ECTs. The researcher hopes that the data gathered from this study will support professionals (such as educational psychologists) and educational systems (such as primary teacher training courses) to build upon what helps ECTs to facilitate the inclusion of pupils with SEND.

Information about the Research Method

Q methodology was the method used in this research and involved the following procedure:

a) A review of relevant literature and focus groups with teachers to identify items to be included in the Q-sort (around 40 statements that facilitate the inclusion of SEND pupils)
2. Approximately 30 participants were asked to systematically rank the Q set according to the value they assigned to each statement.
3. Participants were also asked to provide demographic information (e.g. what training course / how important inclusion is for you) and complete a follow-up questionnaire (e.g. why did you rank this item most highly)
4. The Q sort data was analysed using a statistical by-person analysis with a computer package, PQ method. This was used to identify groups of participants who ranked the statements in a similar way.

References

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Thank you for taking part in this study.

If you require further support as a result of taking part in this study, please do not hesitate to contact us.

Contact Details

Researcher: Jessica Butler (Trainee Educational Psychologist)
Email: jessica.butler@nottingham.ac.uk

Research Supervisor: Yvonne Francis (Academic and Professional Tutor)
Address: School of Psychology University of Nottingham, East Drive, University Park Campus, Nottingham, NG7 2RD
Telephone: 0115 846 7238
Supervising Researcher: Yvonne Francis
Email: yvonne.francis@nottingham.ac.uk

Appendix 20 – Ethical Approval

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

School of Psychology
The University of Nottingham
University Park
Nottingham
NG7 2RD

T: +44 (0)115 8467403 or (0)115 9514344

SJ/tp

Ref: **S1520**

Tuesday 6th June 2023

Dear Jessica Butler and Yvonne Francis,

Ethics Committee Review
Thank you for submitting an account of your proposed research 'Q-methodological study: What helps Primary Early Career's Teachers to facilitate the inclusion of children with Special Educational Needs and Disabilities.'

That proposal has now been reviewed by the Ethics Committee and I am pleased to tell you that your submission has met with the committee's approval.

Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research, then you should consult those Codes of Practice. The Committee should be informed immediately should any participant complaints or adverse events arise during the study.

Independently of the Ethics Committee procedures, supervisors also have responsibilities for the risk assessment of projects as detailed in the safety pages of the University web site. Ethics Committee approval does not alter, replace, or remove those responsibilities, nor does it certify that they have been met.

Yours sincerely

Appendix 21 – Demographic Information and Participant Numbers

Demographic information used to generate unique participant numbers before the data was manually loaded into KADE.

Years Teaching	*Gender*	*Age*	*Training*	*Year Group*	*Location*	*Importance*	*Confidence*	*Unique Code*
2	F	25	SCITT	Y2	Sheffield	4	3	2F25ST2S43
2	F	27	SCITT	Y1	Nottingham	5	4	2F27ST1N54
2	F	24	PGCE	Reception	Sheffield	5	2	2F24PG0S52
1	F	43	Schools Direct	Y1	Nottinghamshire	5	3	1F43SD1N53
3	F	24	Degree	Y4	Bradford	4	3	3F24DE4B43
3	F	27	PGCE	Y1	Nottinghamshire	4	3	3F27PG1N43
2	F	24	Degree	Y4	Nottinghamshire	4	3	2F24SD4N43
2	F	28	Schools Direct	Y2	Nottinghamshire	5	3	2F28SD2N53
2	F	30	Schools Direct	Reception	Nottinghamshire	5	3	2F30SD0N53
1	F	22	Degree	Y4	Nottinghamshire	4	4	1F22DE4N44
2	F	26	Degree	Y4	Nottinghamshire	5	4	2F26DE4N53
2	F	28	Degree	KS2	Leicester	5	4	2F28DE6L54
2	F	49	PGCE	Y1	Nottinghamshire	5	3	2F49PG1N53
2	F	23	PGCE	Y5	Coventry	5	3	2F23PG5C53

Appendix 22 – Seven Factor Extraction using Centroid Factor Analysis.

This is a screenshot taken from the KADE program which shows the unrotated correlation matrix following a seven-factor extraction using CFA.

KADE

Home Edit View Window Help Language

KADE v1.2.1

1. Input
2. Data
3. Correlations
4. Factors
5. Rotation
6. Loadings
7. Output

Project Log

Clear Project

Help

Attribution / License

Centroid Factors | Principal Components | Reset Analysis

Brown Centroid Factors | Horst 5.5 Centroid Factors

Select Number of Factors: 1 2 3 4 5 6 7 8 Extract

Nm ↑	Participant	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
1	1F43SD1N53	0.6121	0.2668	-0.3064	0.1593	-0.0775	0.0111	-0.1692
2	2F30SD0N53	0.6234	0.0669	-0.4242	0.1616	-0.0943	0.0152	-0.1667
3	2F28DE6L54	0.6008	0.1635	-0.3001	0.1103	-0.2585	0.0956	0.0207
4	2F27ST1N54	0.5573	0.2016	0.0681	0.0441	0.4378	0.231	-0.0793
5	2F23PG5C53	0.383	-0.1442	0.2829	0.0447	-0.2797	0.1127	-0.2285
6	2F28SD2N53	0.4761	-0.6657	0.1631	0.3156	-0.2337	0.079	-0.1886
7	2F24SD4N43	0.554	-0.4295	-0.0079	0.0938	0.3132	0.0938	0.2094
8	2F24PG0S52	0.6941	-0.1252	0.1788	0.0146	0.17	0.0207	0.0814
9	2F25ST2S43	0.629	0.3123	0.2226	0.1224	-0.145	0.0319	0.2736
10	2F26DE4N53	0.6324	-0.2072	-0.4864	0.22	0.2096	0.035	0.0796
11	1F22DE4N44	0.5919	0.1472	0.1923	0.0436	0.3374	0.1132	-0.3253
12	3F24DE4B43	0.3946	0.1143	0.3492	0.0887	-0.0014	0.0001	-0.0224
13	3F27PG1N43	0.7092	-0.0622	-0.1007	0.0089	-0.0524	0.0061	0.1703
14	2F49PG1N53	0.6976	0.2418	0.2312	0.0889	-0.2684	0.1034	0.3583

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Eigenvalues	4.8882	1.0448	1.0159	0.2573	0.7869	0.1168	0.5463
% explained variance	35	7	7	2	6	1	4
cumulative % explained variance	35	42	49	51	57	58	62

Appendix 23 – Statistical Test Data

A table to show the results of the Kaiser-Guttman Criterion (Guttman, 1954; Kaiser, 1960)

This statistical test suggests that only factors with an eigenvalue greater than one should be retained (Watts & Stenner, 2012). This statistical test identified 3 factors with an Eigenvalue greater than 1, as shown in the Table below.

Factor	Eigenvalue greater than 1	Kaiser-Guttman Criterion (Yes / No)
1	4.8882	Y
2	1.0448	Y
3	1.0159	Y
4	0.2573	N
5	0.7869	N
6	0.1168	N
7	0.5463	N

A table to show the results of Brown's significant loading test (Brown, 1980)

This statistical test uses the equation below to identify the significance level: 2.58 x (1÷ √$no.of\ items\ in\ a\ Q\ set$). The Significance Level for the present study = *2.58 x(1÷ √32) = 0.456083873865***.** If a factor has two or more Q-sorts that significantly load onto the factor then the factor meets Brown's significant loading test. The researcher looked at each factor and identified if the factor had two of more Q-sorts that loaded onto the factor significantly (higher than 0.46). Only one factor met Brown's significant loading test.

Factor	Two or more significant loading Q-sorts (unrotated correlation matrix)	Brown's significant loading test (Yes / No)
1	12	Y
2	1	N
3	1	N
4	0	N
5	0	N
6	0	N
7	0	N

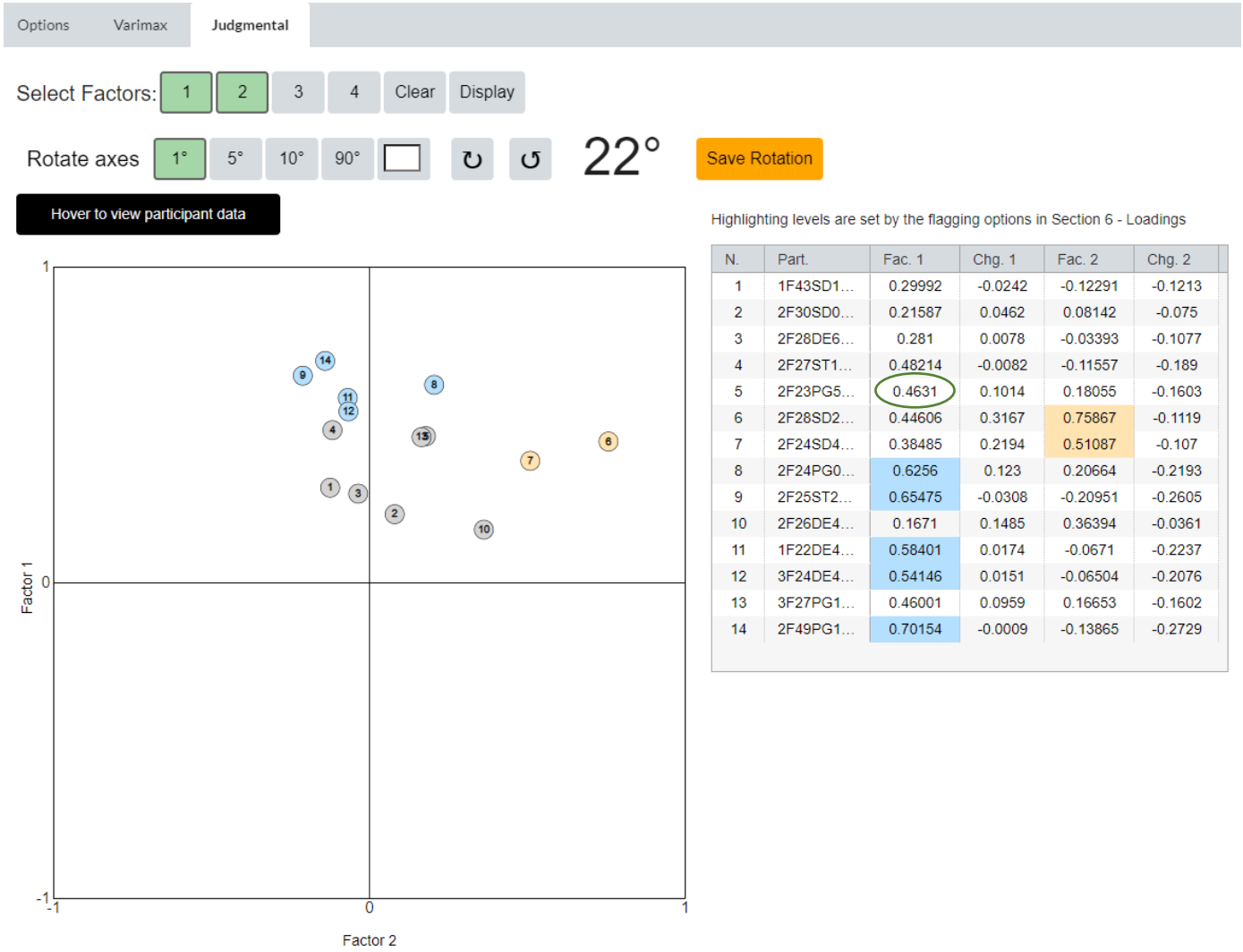
A table to show the results of Humphrey's rule (Brown, 1980)

This statistical test uses the equation below to identify the standard error: 1÷√$no.of\ items\ in\ Q{-}set$. Thus, the Standard Error for the present study = 1÷√32 = 0.176776695297**.** A factor is said to meet Humphrey's rule if the cross product of the two highest loading factors are higher than standard error (0.18). Three factors met Humphrey's rule.

Factor	Product of two highest loadings multiplied are above the standard error (0.18)	Humphrey's rule (Yes / No)
1	0.49	Y
2	0.29	Y
3	0.21	Y
4	0.06	N
5	0.15	N
6	0.03	N
7	0.1	N

Appendix 24 – Manual Rotation Process

This is a screenshot taken from KADE which shows the results (each Q-sorts loadings) after manually rotating Factor 1 and 2 +22 degrees. The researcher rotated by 1 degree at a time until Q-sort 5 (non-significant Q-sort) loaded onto a factor significantly (0.46). This Q-sort has been circled green.



Highlighting levels are set by the flagging options in Section 6 - Loadings

N.	Part.	Fac. 1	Chg. 1	Fac. 2	Chg. 2
1	1F43SD1...	0.29992	-0.0242	-0.12291	-0.1213
2	2F30SD0...	0.21587	0.0462	0.08142	-0.075
3	2F28DE6...	0.281	0.0078	-0.03393	-0.1077
4	2F27ST1...	0.48214	-0.0082	-0.11557	-0.189
5	2F23PG5...	0.4631	0.1014	0.18055	-0.1603
6	2F28SD2...	0.44606	0.3167	0.75867	-0.1119
7	2F24SD4...	0.38485	0.2194	0.51087	-0.107
8	2F24PG0...	0.6256	0.123	0.20664	-0.2193
9	2F25ST2...	0.65475	-0.0308	-0.20951	-0.2605
10	2F26DE4...	0.1671	0.1485	0.36394	-0.0361
11	1F22DE4...	0.58401	0.0174	-0.0671	-0.2237
12	3F24DE4...	0.54146	0.0151	-0.06504	-0.2076
13	3F27PG1...	0.46001	0.0959	0.16653	-0.1602
14	2F49PG1...	0.70154	-0.0009	-0.13865	-0.2729

Appendix 25 – Three-Factor Solution Before and After Manual Rotation

A table to show the three-factor solution after varimax rotation.

This is a screenshot taken from the KADE program which shows the results after varimax rotation for the three-factor solution. The significance level for the present study is 0.46. Thus, 13 out of 14 Q-sorts significantly load onto one of the three factors. The 1 non-significant Q-sort is circled in green.

Num...	Participant	FG	Factor 1	F	Factor 2	F	Factor 3	F
14	2F49PG1N53	F1-1	0.7024	☑	0.1342	☐	0.307	☐
9	2F25ST2S43	F1-2	0.6856	☑	0.051	☐	0.2904	☐
11	1F22DE4N44	F1-3	0.5666	☑	0.1566	☐	0.2473	☐
12	3F24DE4B43	F1-4	0.5264	☑	0.1425	☐	0.0119	☐
8	2F24PG0S52	F1-5	0.5026	☑	0.426	☐	0.2662	☐
4	2F27ST1N54	F1-6	0.4903	☑	0.0735	☐	0.3298	☐
5	2F23PG5C53	F1-7	0.3617	☐	0.3409	☐	0.0012	☐
6	2F28SD2N53	F2-1	0.1294	☐	0.8705	☑	0.105	☐
7	2F24SD4N43	F2-2	0.1655	☐	0.6178	☑	0.2828	☐
10	2F26DE4N53	F3-1	0.0186	☐	0.4	☐	0.7533	☑
2	2F30SD0N53	F3-2	0.1697	☐	0.1564	☐	0.7387	☑
1	1F43SD1N53	F3-3	0.3241	☐	-0.0016	☐	0.6779	☑
3	2F28DE6L54	F3-4	0.2732	☐	0.0738	☐	0.6392	☑
13	3F27PG1N43	F3-5	0.3641	☐	0.3267	☐	0.4963	☑

A table to show the three-factor solution after varimax and manual rotation.

The researcher used manual rotation to see if it was possible to load Q-sort 5 significantly onto Factor 1 or Factor 2. Rotating Factor 1 and 2 by +20 degrees (as shown in Appendix 20) resulted in Q-sort 5 significantly loading onto Factor 1. However, this also resulted in Q-sort 13 loading significantly onto both Factor 1 and Factor 3 (confounding). Thus, this did not produce a better factor solution.

Num...	Participant	FG	Factor 1	F	Factor 2	F	Factor 3	F
14	2F49PG1N53	F1-1	0.7015	☑	-0.1387	☐	0.307	☐
9	2F25ST2S43	F1-2	0.6548	☑	-0.2095	☐	0.2904	☐
8	2F24PG0S52	F1-3	0.6256	☑	0.2066	☐	0.2662	☐
11	1F22DE4N44	F1-4	0.584	☑	-0.0671	☐	0.2473	☐
12	3F24DE4B43	F1-5	0.5415	☑	-0.065	☐	0.0119	☐
4	2F27ST1N54	F1-6	0.4821	☑	-0.1156	☐	0.3298	☐
5	2F23PG5C53	F1-7	0.4631	☑	0.1805	☐	0.0012	☐
6	2F28SD2N53	F2-1	0.4461	☐	0.7587	☑	0.105	☐
7	2F24SD4N43	F2-2	0.3849	☐	0.5109	☑	0.2828	☐
10	2F26DE4N53	F3-1	0.1671	☐	0.3639	☐	0.7533	☑
2	2F30SD0N53	F3-2	0.2159	☐	0.0814	☐	0.7387	☑
1	1F43SD1N53	F3-3	0.2999	☐	-0.1229	☐	0.6779	☑
3	2F28DE6L54	F3-4	0.281	☐	-0.0339	☐	0.6392	☑
13	3F27PG1N43	F3-5	0.46	☐	0.1665	☐	0.4963	☑

Appendix 26 – One-Factor Solution

A table to show the one-factor solution after CFA and varimax rotation.

Q-sort		Factor 1
1	1F43SD1N53	0.6121
2	2F30SD0N53	0.6234
3	2F28DE6L54	0.6008
4	2F27ST1N54	0.5573
5	2F23PG5C53	0.383
6	2F28SD2N53	0.4762
7	2F24SD4N43	0.554
8	2F24PG0S52	0.6941
9	2F25ST2S43	0.629
10	2F26DE4N53	0.6324
11	1F22DE4N44	0.5919
12	3F24DE4B43	0.3946
13	3F27PG1N43	0.7092
14	2F49PG1N53	0.6976
% Explained Variance		35

Note: CFA and varimax rotation were completed using KADE. The rows highlighted in green show the loadings which met the significance level for this study (0.46). 12 out of 14 Q-sorts loaded significantly onto Factor 1.

Appendix 27 – Two-Factor Solution

A table to show the one-factor solution after CFA and varimax rotation.

Q-sort		Factor 1	Factor 2
1	1F43SD1N53	0.6528	0.1405
2	2F30SD0N53	0.5453	0.3094
3	2F28DE6L54	0.5834	0.2178
4	2F27ST1N54	0.5702	0.1615
5	2F23PG5C53	0.2269	0.3406
6	2F28SD2N53	-0.0017	0.8185
7	2F24SD4N43	0.1993	0.6721
8	2F24PG0S52	0.4907	0.5067
9	2F25ST2S43	0.6931	0.1134
10	2F26DE4N53	0.3927	0.5373
11	1F22DE4N44	0.5666	0.2258
12	3F24DE4B43	0.3872	0.1374
13	3F27PG1N43	0.5397	0.4643
14	2F49PG1N53	0.7077	0.2106
% Explained Variance		26	17

Note: CFA and varimax rotation were completed using KADE. The rows highlighted in green show the loadings which significantly loaded onto Factor 1. The loadings highlighted in blue significantly loaded onto Factor 2. Two loadings were non-significant (Q-sort 5 and 12). Two loadings were confounding (Q-sort 8 and 13). Non-significant and confounding Q-sorts have been highlighted grey.

Appendix 28 – Factor Interpretation Crib Sheet

Recommended by Watts and Stenner (2012), crib sheets were generated or each factor array. Each crib sheet will outline the following information for each factor.

a) *pole statements* – Information regarding the highest and lowest ranked statements
b) *distinguishing statements* - Information regarding statements ranked significantly higher and lower than any other factor.
c) *qualitative information* – Information from the Q-sort Questionnaire regarding the statements in the Q-set
d) *demographic information* - Information about the participants who loaded significantly onto that factor.
e) *consensus statements*– Information about statements ranked similarly by each factor.

Raw data will then be presented and compared for each factor (f). This will include information regarding each factor's score, rank score and rank order.

Factor One Crib Sheet

a) Pole statements for Factor 1		
Statement		**Rank**
1	Teacher-pupil relationship	4
20 **8** **10**	Effective Deployment of Teaching Assistants Teacher-Parent Communication Positive Teacher Attitudes Toward Pupils with SEND	3
12 **29** **24** **9**	Supportive School Environment where Diversity is Celebrated Teacher Confidence (with including pupils with SEND) Accessing Support from the SENCo Listening to Pupils & Involving them in Decisions about them	2
17 **15** **23** **2** **22**	Identifying Pupil Strengths Extending What is Available for all Pupils in the Classroom Knowledge about Special Educational Needs Staff training & opportunities for CPD Family Involvement	1

5	Day-to-day Experience in the Classroom	0
16	Observing Examples of Good Practice	
25	Information from Previous Class Teacher about Pupil Strengths & Needs	
4	Advice & Support from External Professionals	
14	Reviewing & Revising Provision	
30	Senior Leadership Team Support Promoting Inclusion	
19	Time & Support Planning Inclusive Lessons	-1
7	Teacher Mentoring or Supervision	
3	Whole School Policies & Systems that Promote Inclusion	
31	Being Open to Learn & Improve your Teaching Practice	
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	
27	Collaborative Work Environment	-2
11	Knowledge & Skills to Adapt the Curriculum	
32	Informal support, Advice & Guidance from Colleagues	
28	Knowledge of Inclusion Policy	
21	Knowledge of the Graduated Response to SEND	-3
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	
26	Prior Special School Experience	
6	Independent Research & Reading	-4

b) Distinguishing statements for Factor 1

Statement		**Z score**	**Significance**
12	Supportive School Environment where Diversity is Celebrated	1.26	p<0.01
2	Staff training & opportunities for CPD	0.21	p<0.05
5	Day-to-day Experience in the Classroom	0.07	p<0.01
25	Information from Previous Class Teacher about Pupil Strengths & Needs	-0.01	p<0.01
30	Senior Leadership Team Support Promoting Inclusion	-0.18	p<0.01
31	Being Open to Learn & Improve your Teaching Practice	-0.45	p<0.05
11	Knowledge & Skills to Adapt the Curriculum	-0.73	p<0.01
21	Knowledge of the Graduated Response to SEND	-1.45	p<0.01
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-1.65	p<0.05
6	Independent Research & Reading	-1.86	p<0.01

Statements ranked more positively in Factor 1 than in any other factor array		**Statements ranked more negatively in Factor 1 than in any other factor array**	
Rank	**Statement**	**Rank**	**Statement**
3	20 Effective Deployment of Teaching Assistants	**0**	5 Day-to-day Experience in the Classroom

3	8	Teacher-Parent Communication	**0**	4	Advice & Support from External Professionals
3	10	Positive Teacher Attitudes Toward Pupils with SEND	**-1**	3	Whole School Policies & Systems that Promote Inclusion
2	12	Supportive School Environment where Diversity is Celebrated	**-1**	13	Shared Strategies to Adapt the Curriculum for Pupils with SEND
2	29	Teacher Confidence (with including pupils with SEND)	**-2**	27	Collaborative Work Environment
2	24	Accessing Support from the SENCo	**-2**	11	Knowledge & Skills to Adapt the Curriculum
2	9	Listening to Pupils & Involving them in Decisions about them	**-2**	32	Informal support, Advice & Guidance from Colleagues
1	15	Extending What is Available for all Pupils in the Classroom	**-3**	21	Knowledge of the Graduated Response to SEND
1	23	Knowledge about Special Educational Needs	-3	18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge
0	25	Info from Previous Class Teacher about Pupil Strengths & Needs	-4	6	Independent Research & Reading
0	14	Reviewing & Revising Provision			
0	30	Senior Leadership Team Support Promoting Inclusion			

c) Qualitative Information for Factor 1

Post Q-Sort Questionnaire Information Regarding Pole Statements

Participant	Most helpful
14	***Teacher-pupil relationships*** *(1) - I think that's the most important thing for any pupil if they're SEND or not– if you get that right it makes everything else much more. If they're comfortable and trust you and know you – they're much more ready to learn. Doesn't matter if SEND or not.*
9	***Teacher-pupil relationships*** *(1) - because it helps you know what works and doesn't work for that particular child and helps you to work together.*
8	***Teacher-pupil relationships*** *(1) - because you don't understand a diagnosis, you understand a child. Each child is so different and unique, knowing what they're like and what they would respond well to. I have to bond with a child for their sake and for my sake. You want to do better for that child if you know them and you love them and they want to do better for you if they feel love and happy.*
4	***Teacher-pupil relationships*** *(1) - If you don't have that you have nothing to go off, especially with SEND, can be in environment that is more difficult*

11	***Teacher confidence*** *(29) - because you need to be confident in your own practice to facilitate effective inclusion. if you don't really know how to support them, how are they supposed to feel confident in themselves that they can access things. Really important that you show them that you believe in them and they can do it.*
12	***Support planning inclusive lessons*** *(19) - most helpful and ideal would be if someone with more knowledge and experience can sit down with you and support your planning of inclusive lessons.*

Participant	**Least helpful**
14	***Knowledge of the graduated approach*** *(21) - Not that it isn't important but it's similar to some of the other answers.*
9	***Knowledge of the graduated approach*** *(21) - don't know what it is so it's not been helpful so far*
11	***Prior special school experience*** *(26) - I don't have any and I don't think a lot of mainstream teachers do, and I don't think that's essential.*
12	***Day-to-day experience*** *(5) – I don't think this would necessarily help you to facilitate inclusion – depending on what those experiences are to start with…*
8	***Independent reading & research*** *(6) - I'd go to everything else before that. I find it hard to learn this way*
4	***Planning of lessons which build on pupil's prior knowledge*** *(18) – I think this is probably less important for pupils with SEND.*

Qualitative Information regarding unclear or missing statements	
Participant	**Were there any statements that you did not understand?**
4	*No*
8	*No*
9	*Knowledge of the graduated response to SEND (21)*
11	*Knowledge of the graduated response to SEND (21)*
12	*Knowledge of the graduated response to SEND (21)*
14	*No*
Participant	**Were there any statements that you would have added?**
4	*No*
8	*No*
9	*Support plan and EHCP – specific statements and targets for children with SEND.*
11	*No*
12	*Maybe b squared to help assess and monitor.*
14	*No*

Participant	**Which column has the statements you feel most neutral about? (Zero-salience line)**	
	Column number on PQ Method	*Column value*

4	*4*		*-1*
8	*4*		*-1*
9	*2*		*-3*
11	*4*		*-1*
12	*4*		*-1*
14	*2*		*-3*
Average	*3.3*		*-2.3*

e) Demographic Information for Factor 1

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*
4	0.5	2	27	SCITT	Y1	Nottingham	5	4
8	0.5	2	24	PGCE	Reception	Sheffield	5	2
9	0.69	2	25	SCITT	Y2	Sheffield	4	3
11	0.57	1	22	Degree	Y4	Nottinghamshire	4	4
12	0.53	3	24	Degree	Y4	Bradford	4	3
14	0.70	2	49	PGCE	Y1	Nottinghamshire	5	3

Factor Two Crib Sheet

a) Pole statements for Factor 2

Statement		Rank
5	Day-to-day Experience in the Classroom	4
11	Knowledge & Skills to Adapt the Curriculum	3
2	Staff training & opportunities for CPD	3
4	Advice & Support from External Professionals	3
1	Teacher-pupil relationship	2
24	Accessing Support from the SENCo	2
20	Effective Deployment of Teaching Assistants	2
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	2

10	Positive Teacher Attitudes Toward Pupils with SEND	1
16	Observing Examples of Good Practice	1
27	Collaborative Work Environment	1
32	Informal support, Advice & Guidance from Colleagues	1
29	Teacher Confidence (with including pupils with SEND)	1
23	Knowledge about Special Educational Needs	0
15	Extending What is Available for all Pupils in the Classroom	0
3	Whole School Policies & Systems that Promote Inclusion	0
21	Knowledge of the Graduated Response to SEND	0
28	Knowledge of Inclusion Policy	0
17	Identifying Pupil Strengths	0
6	Independent Research & Reading	-1
8	Teacher-Parent Communication	-1
9	Listening to Pupils & Involving them in Decisions about them	-1
12	Supportive School Environment where Diversity is Celebrated	-1
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-1
19	Time & Support Planning Inclusive Lessons	-2
7	Teacher Mentoring or Supervision	-2
14	Reviewing & Revising Provision	-2
22	Family Involvement	-2
25	Information from Previous Class Teacher about Pupil Strengths & Needs	-3
31	Being Open to Learn & Improve your Teaching Practice	-3
30	Senior Leadership Team Support Promoting Inclusion	-3
26	Prior Special School Experience	-4

b) Distinguishing statements for Factor 2

Statement		Z score	Significance
5	Day-to-day Experience in the Classroom	2.11	p<0.01
11	Knowledge & Skills to Adapt the Curriculum	1.36	p<0.05
4	Advice & Support from External Professionals	1.31	p<0.01
1	Teacher-pupil relationship	1.23	p<0.01
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	0.8	p<0.01
27	Collaborative Work Environment	0.39	p<0.05
32	Informal support, Advice & Guidance from Colleagues	0.31	p<0.01
28	Knowledge of Inclusion Policy	-0.12	p<0.05

17	Identifying Pupil Strengths	-0.24	p<0.05
6	Independent Research & Reading	-0.31	p<0.01
8	Teacher-Parent Communication	-0.31	p<0.01
9	Listening to Pupils & Involving them in Decisions about them	-0.56	p<0.01
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	-0.68	p<0.05
14	Reviewing & Revising Provision	-0.87	p<0.05
22	Family Involvement	-1.23	p<0.01
31	Being Open to Learn & Improve your Teaching Practice	-1.31	p<0.05

Statements ranked more positively in Factor 2 than in any other factor array			**Statements ranked more negatively in Factor 2 than in any other factor array**		
Rank	**Statement**		**Rank**	**Statement**	
4	5	Day-to-day Experience in the Classroom	**0**	23	Knowledge about Special Educational Needs
3	11	Knowledge & Skills to Adapt the Curriculum	**0**	17	Identifying Pupil Strengths
3	2	Staff training & opportunities for CPD	**-1**	8	Teacher-Parent Communication
3	4	Advice & Support from External Professionals	**-1**	9	Listening to Pupils & Involving them in Decisions about them
2	24	Accessing Support from the SENCo	**-1**	12	Supportive School Environment where Diversity is Celebrated
2	13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	**-2**	19	Time & Support Planning Inclusive Lessons
1	16	Observing Examples of Good Practice	**-2**	7	Teacher Mentoring or Supervision
1	27	Collaborative Work Environment	**-2**	14	Reviewing & Revising Provision
1	32	Informal support, Advice & Guidance from Colleagues	**-2**	22	Family Involvement
0	21	Knowledge of the Graduated Response to SEND	**-3**	25	Information from Previous Class Teacher about Pupil Strengths & Needs
0	28	Knowledge of Inclusion Policy	**-3**	31	Being Open to Learn & Improve your Teaching Practice

c) Qualitative Information Factor 2

Post Q-Sort Questionnaire Information Regarding Pole Statements

Participant	**Most helpful**
6	***Day to day experience in the classroom*** *(5) - I think learning through experience has been so important for my practice, you have training and guidance but getting to know children as*

	individuals and adapting things that work for them - the experience is so important. I've also found colleagues advice so important and has been monumental.
7	***Knowledge & skills to adapt curriculum*** *(11) - That one for me, because I found you can know the skills to make lessons inclusive but if you don't know the curriculum. Actually knowing what you're teaching and how best to adapt that to their children that helps them to access the learning*

Participant	**Least helpful**
6	**Prior special school experience** *(26)* - I didn't have this and don't think essential.
7	**Collaborative work environment** *(27)* - I don't think that helps me to facilitate the inclusion of pupils with SEND in my classroom. It's a nice thing but haven't found any support with that. My colleagues don't feel confident in this area (inclusion of SEND) so it's not been helpful.

Qualitative Information regarding unclear or missing statements

Participant	**Were there any statements that you did not understand?**
6	*No*
7	*No*

Participant	**Were there any statements that you would have added?**
6	*No*
7	*Social media (tips from twitter / TikTok / Facebook groups)*

Participant	**Which column has the statements you feel most neutral about? (Zero-salience line)**	
	Column number (on PQ Method)	***Column value***
6	*5*	*0*
7	*5*	*0*
Average	*5*	*0*

d) Demographic Information for Factor 2

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*
6	0.87	2	28	Schools Direct	Y2	Nottinghamshire	5	3
7	0.62	2	24	Schools Direct	Y4	Nottinghamshire	4	3

Factor Three Crib Sheet

a) Pole statements for Factor 3

Statement		Rank
1	Teacher-pupil relationship	4
10	Positive Teacher Attitudes Toward Pupils with SEND	3
8	Teacher-Parent Communication	
5	Day-to-day Experience in the Classroom	
17	Identifying Pupil Strengths	2
2	Staff training & opportunities for CPD	
6	Independent Research & Reading	
22	Family Involvement	
11	Knowledge & Skills to Adapt the Curriculum	1
9	Listening to Pupils & Involving them in Decisions about them	
31	Being Open to Learn & Improve your Teaching Practice	
3	Whole School Policies & Systems that Promote Inclusion	
24	Accessing Support from the SENCo	
4	Advice & Support from External Professionals	0
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	
14	Reviewing & Revising Provision	
23	Knowledge about Special Educational Needs	
7	Teacher Mentoring or Supervision	
12	Supportive School Environment where Diversity is Celebrated	
15	Extending What is Available for all Pupils in the Classroom	-1
20	Effective Deployment of Teaching Assistants	
13	Shared Strategies to Adapt the Curriculum for Pupils with SEND	
19	Time & Support Planning Inclusive Lessons	
21	Knowledge of the Graduated Response to SEND	
29	Teacher Confidence (with including pupils with SEND)	-2
16	Observing Examples of Good Practice	
27	Collaborative Work Environment	
32	Informal support, Advice & Guidance from Colleagues	
28	Knowledge of Inclusion Policy	-3
25	Info from Previous Class Teacher about Pupil Strengths & Needs	
30	Senior Leadership Team Support Promoting Inclusion	

26	Prior Special School Experience	-4

b) Distinguishing statements for Factor 3

Statement		Z score	Significance
5	Day-to-day Experience in the Classroom	0.93	p<0.01
6	Independent Research & Reading	0.73	p<0.01
11	Knowledge & Skills to Adapt the Curriculum	0.55	p<0.05
31	Being Open to Learn & Improve your Teaching Practice	0.39	p<0.01
18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	0.12	p<0.05
20	Effective Deployment of Teaching Assistants	-0.22	p<0.01
29	Teacher Confidence (with including pupils with SEND)	-0.72	p<0.05
16	Observing Examples of Good Practice	-0.88	p<0.01

Statements ranked more positively in Factor 3 than in any other factor array			**Statements ranked more negatively in Factor 3 than in any other factor array**		
Rank	**Statement**		**Rank**	**Statement**	
3	10	Positive Teacher Attitudes Toward Pupils with SEND	**0**	4	Advice & Support from External Professionals
3	8	Teacher-Parent Communication	**0**	23	Knowledge about Special Educational Needs
2	17	Identifying Pupil Strengths	**-1**	15	Extending What is Available for all Pupils in the Classroom
2	6	Independent Research & Reading	**-1**	20	Effective Deployment of Teaching Assistants
2	22	Family Involvement	**-1**	13	Shared Strategies to Adapt the Curriculum for Pupils with SEND
1	31	Being Open to Learn & Improve your Teaching Practice	**-2**	29	Teacher Confidence (with including pupils with SEND)
1	3	Whole School Policies & Systems that Promote Inclusion	**-2**	16	Observing Examples of Good Practice
0	18	Careful Planning of Lessons which Build on Pupil's Prior Knowledge	**-2**	27	Collaborative Work Environment
0	14	Reviewing & Revising Provision	**-2**	32	Informal support, Advice & Guidance from Colleagues
0	7	Teacher Mentoring or Supervision	**-3**	28	Knowledge of Inclusion Policy
			-3	25	Info from Previous Class Teacher about Pupil Strengths & Needs

	-3	30	Senior Leadership Team Support Promoting Inclusion

c) Qualitative Information Factor 3

Post Q-Sort Questionnaire Information Regarding Pole Statements

Participant	Most helpful
10	***Teacher-pupil relationship*** *(1) - If I didn't know those children, I wouldn't be able to plan effective learning based on what they can do. Thinking about a specific child I have taught, without the relationship with him, you can have more arguments because you don't know them well, feels more like battle. I'm better able to adapt provision because I know what they're like.*
2	***Teacher pupil relationship*** *(1) - when I did my initial training year where the SEND pupil was very much knows her own mind and it was so important to build relationship with her. I think our relationship made more of an impact on her progress than any other factor.*
1	***Listening to pupils & involving them in decision*** *(9)* ***-*** *Relationships are all really important to me and my practice and listening to pupils and involving them in decisions about them. Without involving them and just telling them what they're doing, we won't get the desired outcomes and that's come from experience in the past. So important to build relationships with them and ask them what they would like to achieve and then they achieve more because they're on board too. It has a more positive impact for that child. They achieve a lot more if you involve them. Important in my whole practice, the approach I take with all children not just children with SEND.*
3	***Teacher-pupil relationship*** *(1) - children need to feel safe in my classroom. I know their needs and their strengths and what they need support with. It's really important that I know them and they know me.*
13	***Teacher pupil relationship*** *(1) - Thinking about a little boy I've had this year, sometimes it can be a challenge, the relationship we have with each other is the most helpful thing to supporting his learning and his work. Because I know him so well, this won't work because of this… can advocate for their views, if you know them. If you've not got that it's even harder when you have meetings… the fact that he trusts me, and we have that understanding between us, he needs that reassurance. Before you even start trying to teach children you need to have that relationship as the foundation.*
Participant	**Least helpful**
10	***Prior special school experience*** *(26) - I did have some experience (did some supply as a TA) but the needs are so different in mainstream education, didn't prepare me to adapt the curriculum. It was nice to see how they work, but didn't help me to facilitate inclusion of pupils with SEND in mainstream.*
2	***Prior special school experience*** *(26) - I've never worked in a special school and don't feel it was essential experience to have.*

1	***Prior special school experience*** *(26) - I think you gain some ideas and tactics from special school experience but don't think you need to work in a special school to be able to facilitate the inclusion of pupils with SEND*
3	***Informal support advice / guidance from colleagues*** *(32) - because I'm the only one in the SEND team I don't find this helps my ability to facilitate inclusion, it's more helpful to have external agencies (C&I team, other DSP, SALT, SEMH team) and the SENCo than other colleagues.*
13	***Prior special school experience*** *(26) - simply because if you do you training you have to have experience there but it doesn't seem to be that relevant to the experience I actually have in mainstream. Didn't necessarily support me…It would have made more sense to observe good practice in a mainstream school.*

Qualitative Information regarding unclear or missing statements	
Participant	**Were there any statements that you did not understand?**
1	*No. All clear and valid, will be important at different points in your career, I think.*
2	*No.*
3	*No.*
10	*No.*
13	*No.*
Participant	**Were there any statements you felt were missing?**
1	*Paperwork side of things, support plans and provision maps.*
2	*No.*
3	*Perhaps something about EHCPs. This can be a really helpful document with personal targets. Might have suggestions on how to achieve inclusion in this way.*
10	*No.*
13	*No.*

Participant	**Which column has the statements you feel most neutral about? (Zero-salience line)**	
	Column number on PQ Method	***Column value***
1	1	*-4*
2	3	*-2*
3	5	*0*
10	*3*	*-2*
13	*4*	*-1*
Average	*3.2*	*-2.2*

e) Demographic Information for Factor 3

Q-sort	*Loading*	*Years teaching*	*Age*	*Teacher Training*	*Current Year Group*	*Area teaching*	*Importance Rating*	*Confidence Rating*

1	0.68	1	43	Schools Direct	Y1	Nottinghamshire	5	3
2	0.74	2	30	Schools Direct	Reception	Nottinghamshire	5	3
3	0.64	2	28	Degree	KS2	Leicester	5	4
10	0.75	2	26	Degree	Y4	Nottinghamshire	5	4
13	0.5	3	27	PGCE	Y1	Nottinghamshire	4	3

a) Comparison of Pole Statements

Pole statements for each factor and their relative ranking with the other two factors

Statement		Factor Ranking		
		One	Two	Three
1	Teacher-pupil relationship	+4	2	+4
5	Day to day experiences in the classroom	0	+4	+3
6	Independent research and reading	-4	-1	+2
26	Prior Special School Experience	-3	-4	-4

e) Consensus Statements

Consensus statements and their relative ranking for each factor

Statement			Factor Ranking			Average
			One	Two	Three	Rank
	1	Teacher-pupil relationship	*+4*	*+2*	*+4*	*+3.3*
	24	Accessing Support from the SENCo	*+2*	*+2*	*+1*	*+1.6*
*	23	Knowledge about Special Educational Needs	*+1*	*0*	*0*	*+0.3*
	14	Reviewing & Revising Provision	*0*	*-2*	*0*	*-0.6*
*	3	Whole School Policies & Systems that Promote Inclusion	*-1*	*0*	*+1*	*0*
*	7	Teacher Mentoring or Supervision	*-1*	*-2*	*0*	*-1*
*	19	Time & Support Planning Inclusive Lessons	*-1*	*-2*	*-1*	*-1.3*
*	26	Prior Special School Experience	*-3*	*-4*	*-4*	*-3.6*

Note: prior-special school experience is the only consensus statement below the average zero-salience line (-2.5)

f) A Comparison of each Factor's Z scores, Rank score, and Rank order for each Statement.

	Factor 1			Factor 2			Factor 3		
Statement	Z score	Rank	Rank Order	Z score	Rank	Rank Order	Z score	Rank	Rank Order
1. Teacher-pupil relationship	2.45	4	1	1.23	2	5	2.35	4	1
2. Staff training & opportunities for CPD	0.21	1	12	1.31	3	3	0.81	2	6
3. Policies & Systems that Promote Inclusion	-0.21	-1	22	0	0	16	0.26	1	12
4. Advice & Support from External Professionals	-0.04	0	17	1.31	3	4	0.19	0	14
5. Day-to-day Experience in the Classroom	0.07	0	14	2.11	4	1	0.93	3	4
6. Independent Research & Reading	-1.86	-4	32	-0.31	-1	20	0.73	2	7
7. Teacher Mentoring or Supervision	-0.21	-1	21	-0.75	-2	26	-0.11	0	18
8. Teacher-Parent Communication	1.33	3	3	-0.31	-1	21	1.69	3	3
9. Listening to Pupils & Involving them in Decisions	0.74	2	8	-0.56	-1	22	0.49	1	10
10. Positive Teacher Attitudes Toward Pupils with SEND	1.3	3	4	0.68	1	9	1.73	3	2
11. Knowledge & Skills to Adapt the Curriculum	-0.73	-2	26	1.36	3	2	0.55	1	9
12. Supportive School Env where Diversity is Celebrated	1.26	2	5	-0.63	-1	23	-0.18	0	19
13. Shared Strategies to Adapt the Curriculum	-0.55	-1	24	0.8	2	8	-0.25	-1	22
14. Reviewing & Revising Provision	-0.09	0	18	-0.87	-2	27	0.07	0	16
15. Extending What is Available for all Pupils	0.55	1	10	0.12	0	15	-0.22	-1	20
16. Observing Examples of Good Practice	0.04	0	15	0.56	1	10	-0.88	-2	26
17. Identifying Pupil Strengths	0.6	1	9	-0.24	0	19	0.93	2	5
18. Careful Planning of Lessons (build on prior knowledge)	-1.65	-3	30	-0.68	-1	24	0.12	0	15
19. Time & Support Planning Inclusive Lessons	-0.18	-1	20	-0.68	-2	25	-0.36	-1	23
20. Effective Deployment of Teaching Assistants	1.37	3	2	1.11	2	7	-0.22	-1	21
21. Knowledge of the Graduated Response to SEND	-1.45	-3	29	-0.12	0	17	-0.5	-1	24

22. Family Involvement	0.17	1	13	-1.23	-2	28	0.66	2	8
23. Knowledge about Special Educational Needs	0.32	1	11	0.19	0	14	-0.08	0	17
24. Accessing Support from the SENCo	0.76	2	7	1.19	2	6	0.23	1	13
25. Info from Previous CT about Pupil Strengths & Needs	-0.01	0	16	-1.31	-3	29	-1.44	-3	30
26. Prior Special School Experience	-1.84	-3	31	-2.11	-4	32	-2.27	-4	32
27. Collaborative Work Environment	-0.58	-2	25	0.39	1	11	-1.07	-2	27
28. Knowledge of Inclusion Policy	-1.24	-2	28	-0.12	0	18	-1.1	-3	29
29. Teacher Confidence (with inclusion)	0.87	2	6	0.24	1	13	-0.72	-2	25
30. SLT support Promoting Inclusion	-0.18	0	19	-1.67	-3	31	-1.66	-3	31
31. Being Open to Learn & Improve your Practice	-0.45	-1	23	-1.31	-3	30	0.39	1	11
32. Informal support, advice & guidance from Colleague	-0.8	-2	27	0.31	1	12	-1.09	-2	28

Code:

Red highlight = lowest ranked statements (-4 or -3)

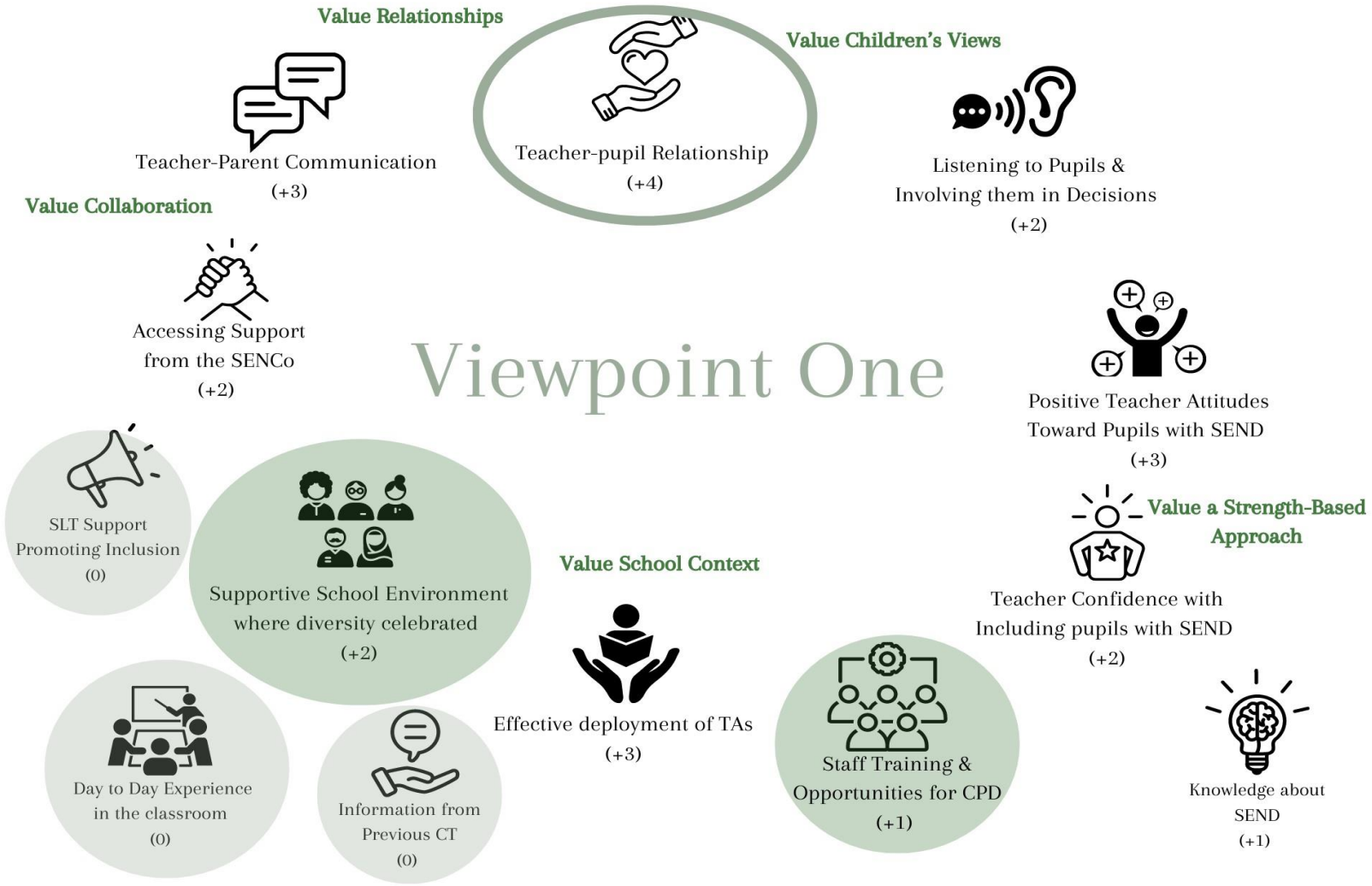
Green highlight – highest ranked statements (+4 or +3)

Orange highlight = ranked highly (+2)

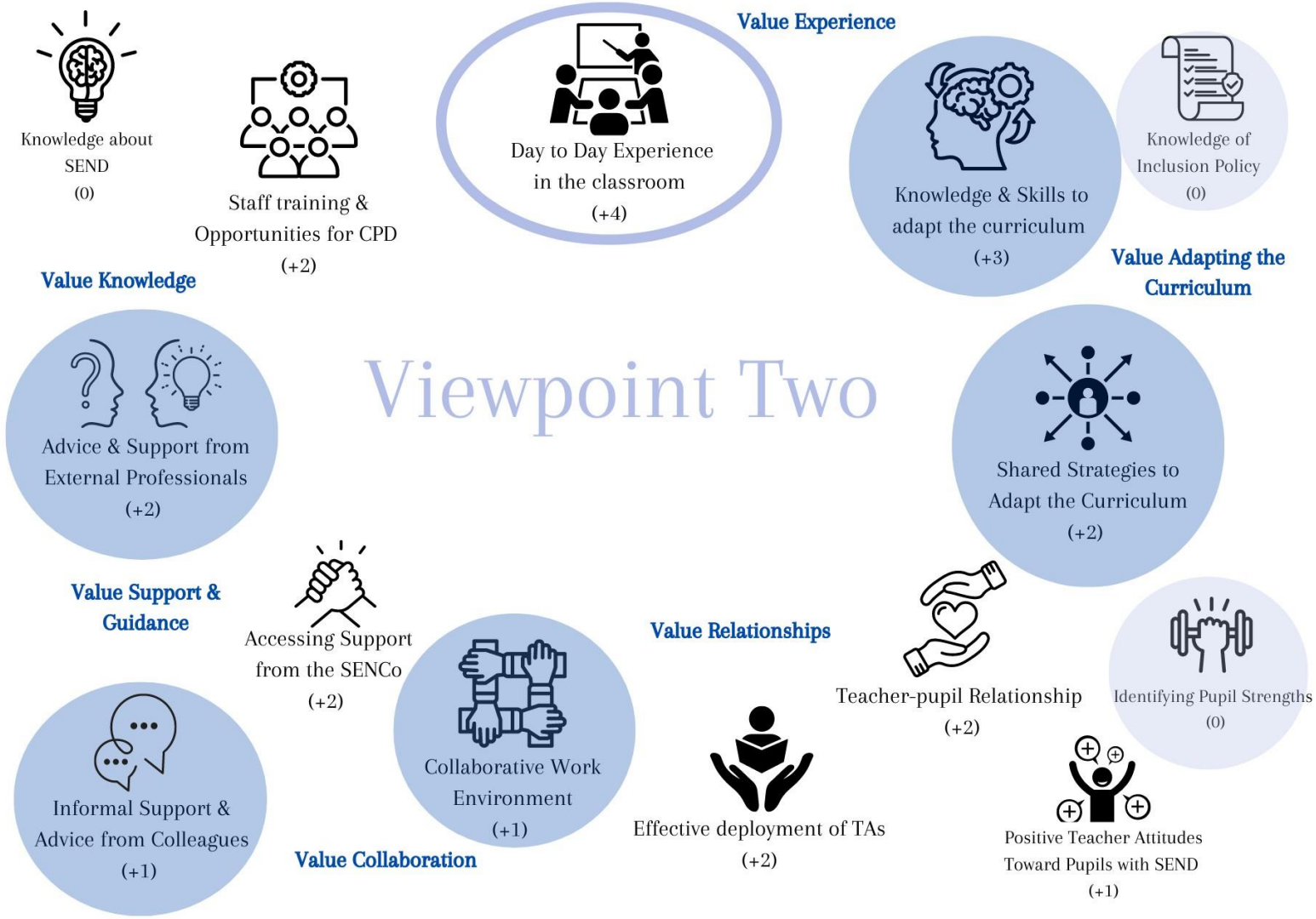
Purple highlight = found to be more helpful by more than one viewpoint

Purple writing = found to be less helpful by more than one viewpoint

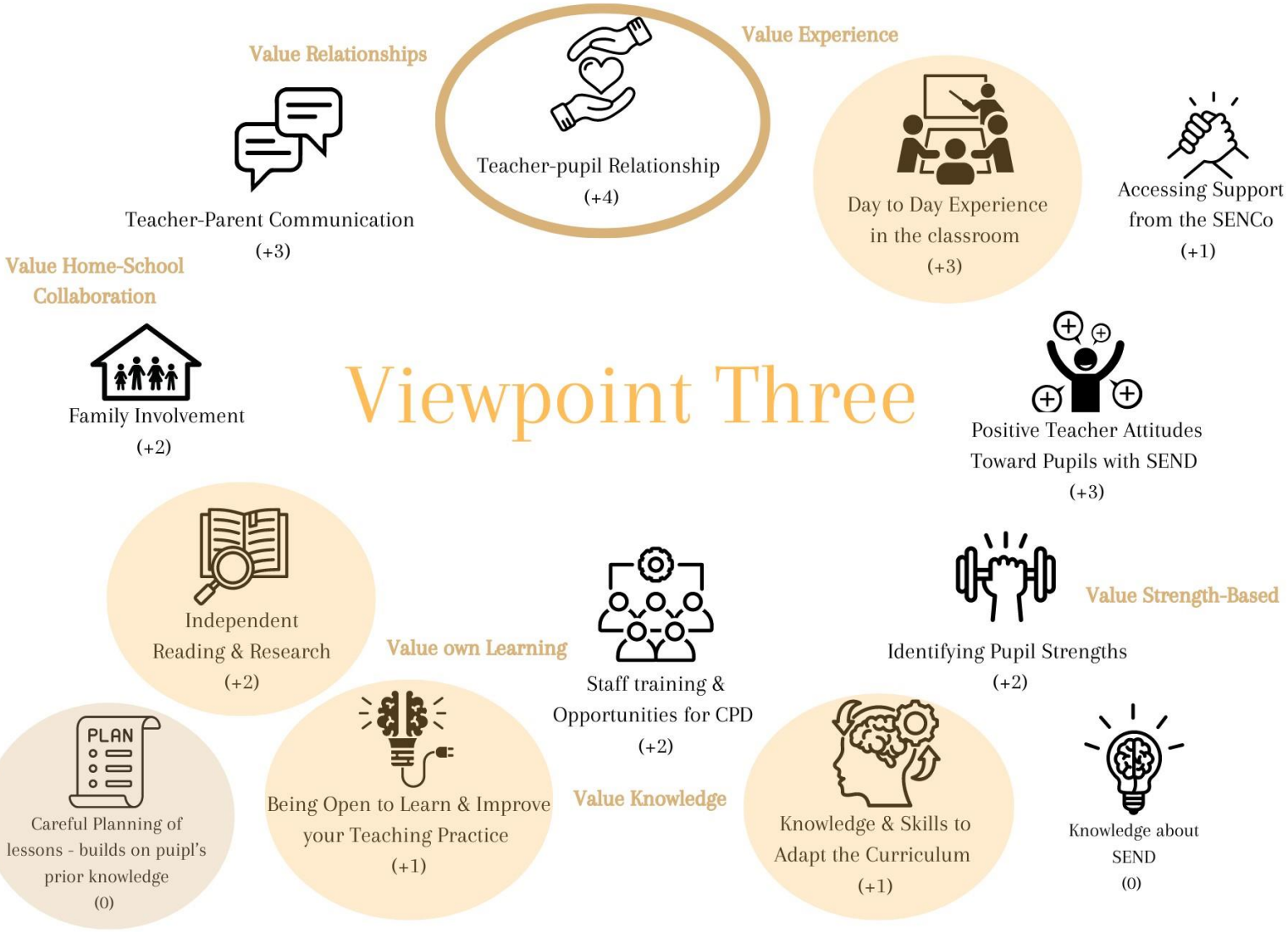
Appendix 29 – Key Themes Identified by each Viewpoint.



Note: This figure provides a summary of Viewpoint One and includes highly ranked statements (+4, +3, +2) and distinguishing statements (above 0) identified in factor 1 (see Appendix 28 & 30). The highest ranked statement is circled, distinguishing statements are shaded, and key themes are written in green.



Note: This figure provides a summary of Viewpoint Two and includes highly ranked statements (+4, +3, +2) and distinguishing statements (above 0) identified in factor 2 (see Appendix 28 & 30). The highest ranked statement is circled, distinguishing statements are shaded, and key themes are written in blue.



Note: This figure provides a summary of Viewpoint Three and includes highly ranked statements (+4, +3, +2) and distinguishing statements (above 0) identified in factor 3 (see Appendix 28 & 30). The highest ranked statement is circled, distinguishing statements are shaded, and key themes are written in yellow.

Appendix 30 – A Comparison of Key Findings from each Viewpoint

A table to outline and compare key findings from each of three viewpoints.

	Viewpoint 1	*Viewpoint 2*	*Viewpoint 3*
Perceived Importance of Inclusion (average rating on a scale from 0 – 5)	4.5	4.5	4.8
Perceived Confidence with Inclusion (average rating on a scale from 0 – 5)	3.2	3	3.4
Average Zero Salience Line (the column participants felt most neutral about)	-2.3	0	-2.2
The statement considered most helpful	Teacher-pupil Relationship (+4)	Day-to-Day Experience in the Classroom (+4)	Teacher-pupil Relationship (+4)
The statement considered least helpful	Independent Research & Reading (-4)	Prior Special School Experience (-4)	Prior Special School Experience (-4)
Statements considered more helpful (ranked highly) *Statements in bold = significantly different to other viewpoints at p <0.01*	• Teacher-pupil Relationship (+4) • Effective deployment of TAs (+3) • Teacher-Parent Communication (+3) • Positive Teacher Attitudes Toward Pupils with SEND (+3) • **Supportive School Env where Diversity is Celebrated (+2)**	• Day-to-Day Experience in the Classroom (+4) • Knowledge & Skills to Adapt the curriculum (+3) • Staff Training & Opportunities for CPD (+3) • Advice & Support from External Professionals (+3) • **Teacher-pupil Relationship (+2)**	• Teacher-pupil Relationship (+4) • Positive Teacher Attitudes toward Pupils with SEND (+3) • Teacher-Parent Communication (+3) • **Day-to-day Experience in the Classroom (+3)** • Identifying Pupil Strengths (+2)

	• Teacher Confidence (with inclusion) (+2) • Accessing Support from the SENCo (+2) • Listening to Pupils & Involving them in Decisions (+2)	• Accessing Support from the SENCo (+2) • Effective deployment of TAs (+2) • **Shared Strategies to Adapt the Curriculum (+2)**	• Staff training & opportunities for CPD (+2) • **Independent Research & Reading (+2)** • Family Involvement (+2)
Distinguishing statements considered some-what helpful (ranked above 0) *Statements in bold = significantly different to other viewpoints at p <0.01*	• Staff training & opportunities for CPD (+1) • **Day-to-day Experience in the Classroom (0)** • **Information from Previous Class Teacher about Pupil Strengths & Needs (0)** • **Senior Leadership Team Support Promoting Inclusion (0)**	• Collaborative Work Environment (+1) • **Informal support, Advice & Guidance from Colleagues (+1)** • Knowledge of Inclusion Policy (0) • Identifying Pupil Strengths (0)	• Knowledge & Skills to Adapt the Curriculum (+1) • **Being Open to Learn & Improve your Teaching Practice (+1)** • Careful Planning of Lessons which Build on Pupil's Prior Knowledge (0)

A table to outline the P set's average Zero-Salience Line, Importance of Inclusion, Confidence with Inclusion

Participant	**Zero-salience line**		***Importance (0 – 5)***	***Confidence (0 – 5)***
	Column number (1 – 9)	*Column Value (-4 - +4)*		
1	1	-4	5	3
2	3	-2	5	3
3	5	0	5	4
4	4	-1	5	4
5	3	-2	5	3
6	5	0	5	3
7	5	0	4	3
8	4	-1	5	2
9	2	-3	4	3
10	3	-2	5	4
11	4	-1	4	4
12	4	-1	4	3
13	4	-1	4	3
14	2	-3	5	3
Average	49/14 = 3.5	-2.5	65/14 = 4.6	43/14 = 3

Appendix 31 – Positionality Statement

Throughout the research process I have reflected on my own positionality. This includes my own personal and professional motivations for the present study (Section 1.3), ontological and epistemological stance (Section 3.3) and further reflections below.

Positionality on Objectivity

Whilst adopting a social constructionist perspective, I was aware of the significant tension when seeking objectivity in qualitative research and how it is often limited and context dependent. I was also aware that researchers bring their own perspectives and values to their work which influence the questions they may ask, the methods that they may use and the interpretations that they make. Whilst I was aware of this drawback in qualitative research, I also acknowledged that Q-methodology presents a unique qualiquantological approach to research, drawing upon both qualitative and quantitative methods. For this reason, Watts and Stenner (2012) argue that it can provide a unique blend of objectivity and subjectivity.

- Objectivity – Q-methodology employs rigorous statistical techniques to analyse patterns in the data, allowing me to identify commonalities and differences in viewpoints across the participant sample in a quantifiable manner.
- Subjectivity – Q-methodology respects and value individuals' perspectives, enabling each participant to rank and sort statements in the Q-sorting task based on their own personal view.

Acknowledging that pure objectivity is unattainable in qualitative research I aimed to be reflexive, transparent, and acknowledged my own positionality to research. Throughout the research process I have aimed to be clear and transparent about the options I could have used when conducting a Q-methodology study and have provided an explanation about each step, before outlining the method I adopted in the present study, alongside rationales for the decisions that I made. I have also presented all the information that I collected (see Results Chapter and Appendix 28) to allow readers to come to their own conclusions.

Positionality on Reflexivity

Throughout the research process I aimed to be critically aware that individuals have their own beliefs, knowledge and social realities which are constructed through social interactions. Adopting a social

constructionist perspective, I aimed to examine and reveal the construction of a specific participants group (fourteen primary teachers at the beginning of their career) and have presented the three distinct viewpoints that emerged from the data about what helps this specific population group to include pupils with SEND in their classrooms. I am also aware that as the researcher I am involved in the construction of knowledge and have aimed to be reflexive and aware of the impact that I may have had on the research, for example the questions that I asked participants (Table 17), the way I interacted with participants (Appendix 18) and the way that I interpreted the findings (Chapter 4: Results and Appendix 29). By engaging in reflexivity and recognising my own personal and professional motivations for the present study, I have aimed to provide a transparent account of how I gathered and interpreted the data and have drawn upon inter-rater reliability checks with two peer researchers familiar with Q.

Personal Reflections on the Research Process

- My own personal experience as a primary school teacher was a key motivation for the present study. I found that inclusion was something that aligned with my own values and was something that I wanted all pupils in my class to feel but found it difficult to know where to begin, with little guidance available to draw upon. This motivated me to gather information and create a Q-sort of possible ideas to support primary school teachers to reflect on what helps them to facilitate the inclusion of pupils with SEND.
- Whilst teaching, I also felt there was often a greater pressure to improve children's academic achievement in schools (attainment agenda) and was concerned about the impact this may have on facilitating an inclusive classroom environment, where all children feel valued, welcomed and supported to learn in the same educational space (inclusion agenda). As a primary school teacher in England, I felt this tension between contradictory government agenda (described in the literature review) first hand and was further motivated to investigate how we can support primary school teachers to facilitate inclusive classrooms where all children's learning and progress matters equally.
- My own personal experience as trainee educational psychologist further motivated me to investigate this area of research. I observed how valuable it was to listen to teachers' voices and build upon what is working well. I also noticed how it can be hard as a primary school teacher to have space to reflect on your own practice and how educational psychologists have a privileged position to view a school system more holistically and question how schools are currently operating and if there is a different way of working that may help them to achieve their goals.

- During the doctorate program, I noticed my perspective shift from a primary school teacher to a trainee educational psychologist. I was motivated to investigate primary school teachers views at the beginning of their career but was also aware that my own perspective had shifted and wanted to make sure that I investigated participant's views rather than my own. Adopting a social constructionist perspective, I was aware of the impact the researcher can have on the construction of knowledge and aimed to be reflexive, thinking carefully about the questions I asked participants, piloting the study with experienced teachers and presenting the data clearly and transparently.
- At first, I found the prospect of using Q methodology for the present research study a little daunting as it is not a well-known method. However, I found the systematic process helpful, breaking down the research process into small, manageable steps. I also found it helpful to complete this study alongside two peer Q methodology researchers and drew upon regular inter-rater reliability checks. I felt that Q methodology provided a way for me to investigate participants holistic and subjective views and promote open communication around a complex topic (what helps primary school teachers at the beginning of their career to facilitate inclusion).
- I personally appreciated that by-person factor analysis involved a systematic process and enabled me to identify microscopic similarities and differences in participants views. This method helped me to present participant's subjective views regarding a complex topic with a level of objectivity, aligning with my positionality statement.
- I found that the systematic literature review process was helpful in identifying a key gap in the literature and rationale for the present study as well as developing the concourse and subsequent Q-set (possible ideas to the question what helps primary school teachers at the beginning of their career to facilitate the inclusion of pupils with SEND). I personally would have appreciated the Q sorting activity when I was primary school teacher and hope that this collection of ideas will help other primary school teachers at the beginning of their careers to reflect on what is helpful for them (and can draw upon more in their practice), as well as spot areas that could be better utilised.