The Utility of the Continuum of Support Framework in Supporting Class Teachers and Special Education Teachers in the Identification and Monitoring of Pupils' Educational Needs.

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Doctoral thesis submitted to the Department of Educational Psychology, Inclusive and Special Education, Mary Immaculate College, in partial fulfilment of the requirements for the degree of Professional Doctorate in Educational and Child Psychology (DECPsy).

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Abstract

Background: The context for this study was prompted by the introduction of a new model for the allocation of special education teaching resources for mainstream schools (National Council for Special Education [NCSE], 2014; Department of Education and Skills [DES], 2017a) that aligns itself fundamentally with the National Educational Psychological Service (NEPS) three stage process model of service delivery (DES, 2016). Shevlin et al. (2013a) suggested that some schools were not aware of, or were not uniformly following, the three-staged problem-solving framework recommended by NEPS, the Continuum of Support.

Aims: This study sought to explore class teachers' and special education teachers' perspectives on the Continuum of Support framework in providing support to pupils with special educational needs (SEN). The overarching aims of this research were to explore their perspectives by examining (1) the utility of this problem-solving framework; and (2) the supportive and constraining factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages.

Methods: This study adopted a phenomenological research approach. Engeström's (1987) Activity Theory was utilised as a theoretical perspective. Semi-structured interviews were conducted to gather qualitative data from class teachers and special education teachers working in mainstream primary schools across Ireland. Thematic analysis was utilised to analyse the interview data using an inductive and deductive approach.

Results: The results offer a descriptive picture of the utility of the Continuum of Support framework through the creation of an Activity System model. Results suggest implications for policy and practice with particular implications for the practice of educational psychologists.

Conclusion: The study's findings contribute to the knowledge base on the utility of the Continuum of Support framework in both educational and psychological practice. Through the use of Activity Theory as a psychological framework, primary and secondary contradictions, or areas of tension between components of the Continuum of Support Activity System model, were explored and discussed. This highlighted potential areas of change, growth, and development for both mainstream primary schools and educational psychologists.

Keywords: *Continuum of Support, Supportive Factors, Constraining Factors, Activity Theory, Inductive and Deductive Thematic Analysis.*

Declaration

The work has not previously been accepted for any degree and is not being concurrently submitted for any degree.

This research is being submitted in fulfilment of the requirements of the Doctorate in Educational and Child Psychology (DECPsy) at Mary Immaculate College.

I hereby declare that I am the sole author of this thesis. Where the use has been made of other people, it has been fully acknowledged and referenced.

I hereby give my permission for my thesis, if accepted, to be available for reading and interlibrary loans, and for the title and summary to be made available to outside organisations.

Name: Lisa Moran.

Signature: 

Date: April 27th, 2021.

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Dedication

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List of Abbreviations

AI	Appreciative Inquiry
AIM	Access and Inclusion Model
AFI	Assessment for Intervention
APA	American Psychological Association
AT	Activity Theory
BPS	British Psychological Society
CHAT	Cultural-Historical Activity Theory
CPD	Continuing Professional Development
CRD	Centre for Reviews and Dissemination
DES	Department of Education and Skills
DCYA	Department of Children and Youth Affairs
EADSNE	European Agency for Development in Special Needs Education
EAL	English as Additional Language
EP	Educational Psychologist
EPSEN	Education for Person with Special Educational Needs
ERIC	Education Resource Information Center
GAM	General Allocation Model
ICF-CY	International Classification of Functioning, Disability and Health for Children and Youth
IDEIA	Individuals with Disabilities Education Improvement Act
ISA	Inclusion Support Assistant
MGLD	Mild General Learning Disabilities
MIREC	Mary Immaculate College Research Ethics Committee
MMAT	Mixed Methods Appraisal Tool
MTSS	Multi-Tiered Systems of Support
MTMSD	Multi-Tiered Model of Service Delivery
NCCA	National Council for Curriculum and Assessment
NCSE	National Council for Special Education
NEPS	National Educational Psychological Service
PBIS	Positive Behavioral Interventions and Supports
PSI	Psychological Society of Ireland
RtI	Response to Intervention

SEN	Special Educational Needs
SENO	Special Education Needs Organiser
SIM	School Inclusion Model
SNA	Special Needs Assistant
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHO	World Health Organization
WoE	Weight of Evidence

Chapter 1 Introduction

1.1 Overview of Chapter

This chapter outlines the context, rationale and aims underpinning the current research project and explores the salient components of the national and international context. It also highlights the author's own interest in this area which inspired the research process in the initial stages. An overview of the research is provided with the aims, methodology, measures and analysis applied. A flowchart is presented, outlining the structure of the thesis.

1.2 Personal Interest in Research Area

This research explored the utility of the Continuum of Support framework in supporting class teachers and special education teachers in the identification and monitoring of pupils' educational needs. My interest in this area occurred on account of both professional and personal experiences. During various professional placements, I was exposed to primary schools implementation of the Continuum of Support framework. It was reported anecdotally through informal discussions with schools and professional colleagues on placements, that some schools, were struggling to implement this problem-solving model of assessment and intervention in identifying and responding to pupils' needs. This then contributed to the challenges faced by schools when attempting to implement inclusive practice. Inclusion is described as a process of change, that involves the transformation of schools to cater for all children, with the main purpose of providing educational opportunities for all (Frederickson & Cline, 2015).

1.3 National Context of the Research

The recent introduction of a New Model for the Allocation of Special Education Teaching Resources for Mainstream Schools (NCSE, 2014; DES, 2017a, 2017b) aligns itself fundamentally with the NEPS three stage process model of service delivery (DES, 2016). Launched in 2017, this New Allocation Model replaced the General Allocation Model and English as Additional Language Support (GAM/EAL) scheme (DES, 2017a, 2017b). In Ireland, the traditional resource allocation system for mainstream schools, reflected a medical model of practice (NCSE, 2014). In order to access resources, an assessment and diagnosis of disability and special educational needs (SEN) was a prerequisite (NCSE, 2014). A policy advice paper published by the NCSE exposed inequities with this traditional model (NCSE, 2013). Schools reported having difficulties supporting high incidence pupils with acute

learning needs (e.g. borderline mild general learning disability, mild general learning disability, specific learning disability), with resources in place for low incidence pupils that were not required (e.g. moderate and severe/profound general learning disability, emotional disturbance, hearing impairment, visual impairment) (NCSE, 2013). Low incidence pupils are not found in every school with the low incidence categories occurring less frequently in the general population (NCSE, 2013).

One of the key principles of this New Allocation Model is that all pupils, regardless of SEN, are entitled and welcomed to attend their local mainstream schools (DES, 2016). Schools have welcomed the introduction of this new model, as there has been a move away from labelling pupils unnecessarily with pupils now supported immediately, rather than having to wait for a diagnosis (DES, 2016; DES, 2017a, 2017b). It stipulates that resource allocation is based on identified needs rather than diagnosis, and this added support aims to enhance the pupil's performance and participation in school activities (DES, 2017a, 2017b). This is consistent with the aims of the European Agency for Special Needs and Inclusive Education, which further seeks to support greater flexibility in resource allocation and pedagogy for pupils, through the development of a continuum of support (Donnelly & Kyriazopoulou, 2014). It is also consistent with other governmental initiatives, including the Access and Inclusion Model (AIM) (Department of Children and Youth Affairs [DCYA], 2016). AIM provides needs-based support to children in pre-school services and advocates the same assessment approach as the new model, in that a formal diagnosis is not required to access supports (DCYA, 2016). With the introduction of this Resource Allocation Model, it is expected that schools will be more inclusive, as they are provided with a greater level of autonomy in how they manage and deploy additional teaching support in their schools (DES, 2016; Tiernan & Casserly, 2018).

1.4 Models of Service Delivery

Desforges and Lindsay (2010), in an international review of the procedures used to diagnose a disability and to identify the associated SEN, identified three dominant models of assessment and intervention; the social model, the medical model and the biopsychosocial or interactionist/ecological model. Key to educational psychological practice, the biopsychosocial model was recommended by Desforges and Lindsay (2010), for the identification and assessment of pupils with SEN, and for informing SEN policy. The biopsychosocial model accounts for both within-person factors and environmental factors, that provide support or cause stress for the individual (Desforges & Lindsay, 2010). It evolved from Bronfenbrenner's ecological systems theory and proposes that these factors can either enhance, or limit

performance, which then leads to an increase or decrease of participation in activities (Bronfenbrenner, 1989, 1994; Desforges & Lindsay, 2010).

Within the Irish EP context, the NEPS adheres to the principles of the biopsychosocial model (NEPS, 2007, 2010a). The Continuum of Support framework is implemented, that "encompasses a graduated, problem solving model of assessment and intervention in schools" (NEPS, 2007, p. 2). This problem solving approach to casework enables a critical exploration of the interplay of biological, psychological and social factors (NEPS, 2007, 2010a). The NEPS supports the holistic development of pupils, in mainstream primary and post-primary schools, and implements the Continuum of Support framework to help support schools in the assessment, intervention and monitoring of a pupil's needs (NEPS, 2003, 2007). It comprises three distinct school-based processes: Classroom Support, School Support and School Support Plus (NEPS, 2007; Rose et al., 2015). As mentioned, the New Model for the Allocation of Special Education Teaching Resources for Mainstream Schools, stipulates that resources are to be allocated to the pupils with the greatest level of need (DES, 2017a, 2017b). The Continuum of Support framework also operates under this guiding principle (DES, 2017a). A detailed description of the Continuum of Support framework is provided in Section 2.7.3 of the Literature Review (Chapter 2).

1.5 Aims and Methodology of the Research Project

This study sought to explore class teachers and special education teachers' perspectives on the Continuum of Support framework in providing support to pupils with SEN. A pupil with SEN may find it difficult to progress due to a specific learning difficulty, social and emotional difficulties, speech and language difficulties, or physical and/or sensory needs (Hafidh et al., 2020; Hornby, 2015). The overarching aims of this research were to explore their perspectives by examining the utility of this problem-solving framework; and the supportive and constraining factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages. It also sought to explore how the Continuum of Support framework can be utilised in an Irish educational context to enable class teachers and special education teachers to become more active thinkers in the decision-making process. Active thinking is a form of critical thinking and it relates to how the class teachers and special education teachers comprehend, assess, analyze and process information, to improve their decision-making (Styers et al., 2018).

A phenomenological research approach was adopted to gain insights into the meaningfulness of professional practice and everyday life (Adams & van Manen, 2017). Phenomenological research emphasizes the individual's subjective experience (Mertens, 2015). It focuses on their lived experiences within the world and seeks the individuals' perceptions and meanings of a phenomenon or experience, with the intent of understanding and describing them from their viewpoint (Mertens, 2015; Neubauer et al., 2019; Wertz, 2005).

Engeström's (1987) Activity Theory (AT) was utilised as a theoretical perspective. It provides a framework that supports qualitative research and offers a holistic and contextual method of discovery (Engeström, 1987; Hashim & Jones, 2007). Semi-structured interviews were conducted to gather qualitative data from the class teachers and special education teachers working in mainstream primary schools across Ireland. To ensure the provision of high quality services, interventions and supports for pupils with SEN, there is a need for research in Ireland to focus on early years education in primary settings to address early indicators of potential problems (DCYA, 2014). This will ensure that pupils with SEN get the best foundation and that they are achieving their full potential in all areas of their learning (DCYA, 2014). Thematic analysis was used to analyse the interview data using an inductive and deductive approach. The implementation of thematic analysis provided the author with flexibility so that a rich, detailed, and complex account of the data set could be provided (Braun & Clarke, 2006, 2013). A detailed description of the data collection and analysis procedures will be provided in the Empirical Paper (Chapter 3).

1.6 Research Paradigm

Chilisa and Kawulich (2012) defined 'paradigm' as a way of looking at the world. It represents the beliefs and values within a discipline that help to inform how problems are solved (Chilisa & Kawulich, 2012). It is the researcher's choice to determine their own paradigmatic view, as no one paradigm is correct (Chilisa & Kawulich, 2012). This will then inform their research design, to best answer the research questions (Chilisa & Kawulich, 2012). With the current research, the constructivist paradigm was considered consistent with the author's conceptual framework (Burr, 2015; Ültanir, 2012). The philosophical assumptions that made this paradigm choice appropriate include:

1.6.1 Ontology

Ontology is defined by Mertens (2005) as the nature of reality. The constructivist researcher's goal is to understand the multiple, socially constructed realities that are the

products of human intellects (Guba & Lincoln, 1994; Mertens, 2015). They allow important concepts to develop within a study as they are being constructed by the participants, and the constructivist researcher asserts that reality is subjective (Adom et al., 2016; Mertens, 2015). In terms of the current research, class teachers and special education teachers will be interviewed on their perspectives of the utility of the Continuum of Support framework. No critical interpretation of their perspectives will be undertaken to reach an objective truth (Chilisa & Kawulich, 2012). This is in contrast to the positivist/ post positivist paradigm that proclaims that one reality exists (Chilisa & Kawulich, 2012).

1.6.2 Epistemology

Epistemology is defined as the nature of knowledge and how knowledge is acquired (Mertens, 2005). Constructivists have a broader transactional/subjectivist assumption that sees knowledge created in the interaction between the investigator and respondents (Bada & Olusegun, 2015; Guba & Lincoln, 1994; Mertens, 2015). The findings are essentially created as the investigation proceeds with the investigator and respondents interactively linked (Guba & Lincoln, 1994). Values within the constructivist paradigm are made explicit in the narrative and as such, the concept of confirmability is prominent within this paradigm (Mertens, 2015). Confirmability is important as it demonstrates that investigator bias did not influence the research outcome (Mertens, 2015). The constructivist researcher opts for a more personal, interactive mode of data collection and the researcher and participants are locked into an interactive process (Adom et al., 2016; Mertens, 2005, 2015).

1.6.3 Methodology

Dialectic methodology aimed at the reconstruction of previously held constructions is prominent in this paradigm, and phenomenology is a common design (Chilisa & Kawulich, 2012). It is primarily qualitative and methods used include interviews, observations and document reviews (Mertens, 2015). The philosophical perspective will be revisited as part of the Critical Review and Impact Statement Paper (Chapter 4). This chapter will start with a reflection on the epistemological position adopted. It will include an account on the theoretical position taken and why it was appropriate for this research project.

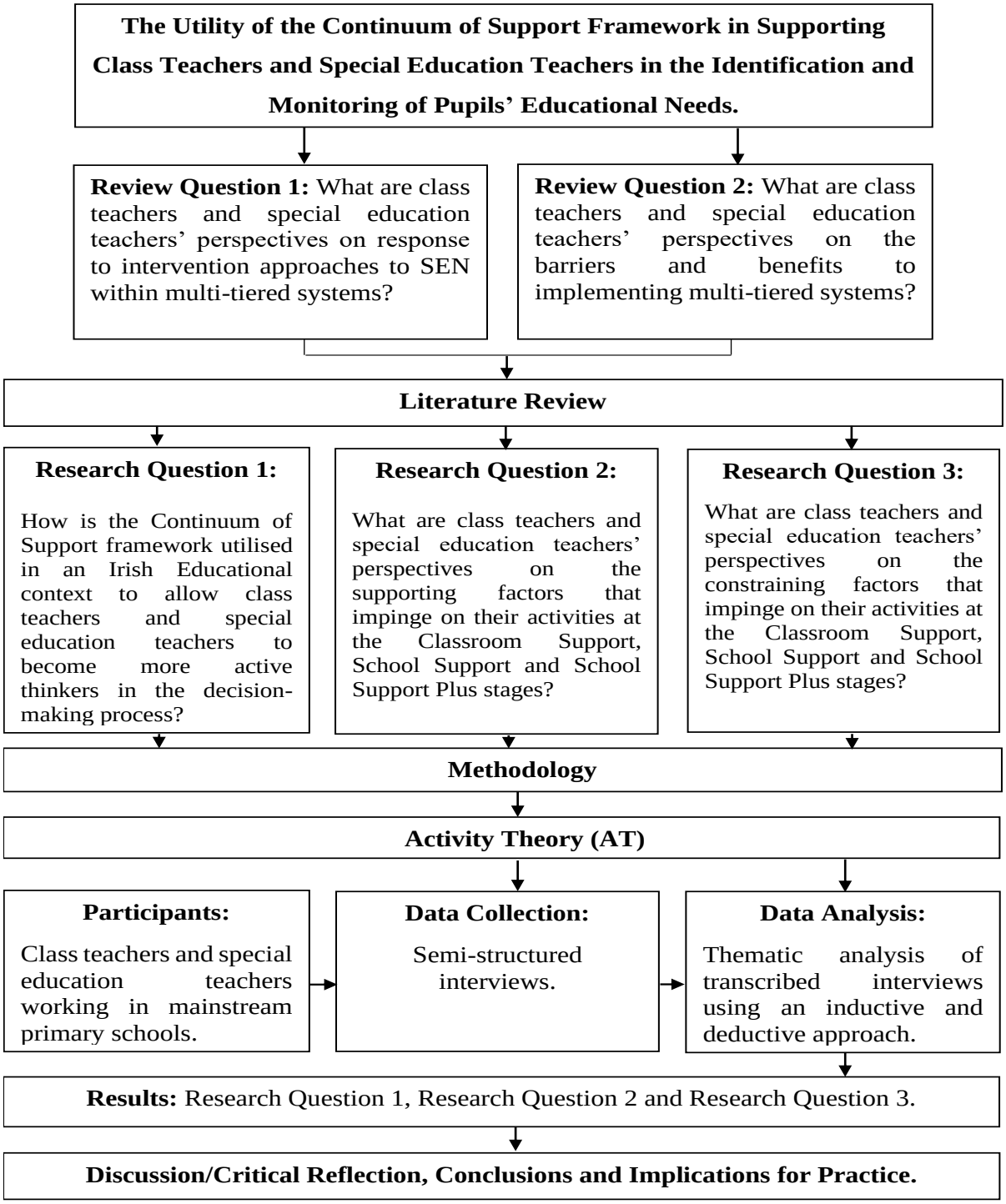
1.7 Chapter Conclusion

This introductory chapter described the rationale and aims underpinning the research study. The literature, pertinent to the topics under investigation are reviewed and critiqued in the Review Paper (Chapter 2). This is followed by the Empirical Paper (Chapter 3), that reports

on the research carried out. Finally, the Critical Review and Impact Statement (Chapter 4), provides a forum for the author to reflect on the learning that has occurred through undertaking this research project and to clearly articulate the impact of the research. Figure 1.1 provides a visual map to the structure of the thesis.

Figure 1.1

Visual Map of Thesis Layout



Chapter 2 Literature Review

2.1 Overview of Chapter

This chapter provides a review of the literature pertaining to the research topic, setting the context and rationale for the current study. The author systematically and critically engaged with the literature linked to the research to ensure that all of the relevant literature in this area was critically explored. An explanation of the purpose of, and the need for the review is provided. This chapter further outlines the systemic approach to the review process and defines key concepts relevant to the review questions. A description of Gough's (2007) Weight of Evidence (WoE) framework is provided, followed by a critical evaluation of the design, methodology and findings of the studies. Finally, a summary and limitations of the systematic review are presented along with directions for future research.

2.2 Rationale for the Literature Review

The majority of pupils in Ireland with SEN are now educated within mainstream schools, either in special classes or within mainstream classes with additional support (Barrett et al., 2019; McCoy et al., 2014; Smyth et al., 2014). Consequently, there is a growing number of pupils with SEN in mainstream schools requiring EP services (O'Farrell & Kinsella, 2018). Barrett et al. (2019) contend that the Irish educational system is well resourced for pupils with SEN, but that there is a need for greater monitoring of the effectiveness of the provision of human, technological and financial resources to schools. Additionally, there is scope for a more critical review of the national and international policy for inclusive education (Mulholland & O'Connor, 2016).

The assertions concerning professional assessment in *Circular 0013/2017* (DES, 2017b) and *Circular 0014/2017* (DES, 2017c) hold particular importance and have changed the working context for the EP. There should be less requirements on the NEPS for individual assessments and more opportunities to engage in consultative problem-solving approaches in line with their model of service delivery (O'Farrell & Kinsella, 2018). Special education provision in mainstream settings has been transformed and it is now anticipated that pupils with SEN can follow a standard educational trajectory (McCoy et al., 2014; Smyth et al., 2014). Additionally throughout Europe, there are ongoing efforts to increase the proportion of pupils with SEN that can be supported in mainstream settings (Smeets & Roeleveld, 2016).

Nonetheless, Anglim et al. (2018) posit that teachers in Irish primary schools feel ill-equipped to cope with these new challenges.

2.3 Identification and Assessment of SEN: International Context

2.3.1 Biopsychosocial Model of SEN. The identification and assessment of pupils with SEN, is a complex, multi-layered process (Griffin & Shevlin, 2011; Shevlin et al., 2013b). The role of the EP has historically been defined by assessment activities with the EP traditionally being considered as the gate-keeper to the statutory assessment process (Filter et al., 2013). Globally, there has been a fundamental shift away from a medicalised view of special education, which was aligned with a traditional assessment role of the psychologist and focused on within-child factors, to a biopsychosocial view, that considers the social and environmental factors (Curtin et al., 2014; Davis & Deponio, 2014; Kennedy et al., 2008). This biopsychosocial model of SEN has moved the frame of reference from the clinic to the school, and aims to create supportive environments to increase the participation and functioning of all pupils (Curtin et al., 2014). Any window of opportunity missed in the early years, can make it increasingly difficult to create a successful life-course for the pupil, with regard to both time and resources (Curtin et al., 2014). This shift in EP practice, to encompass the participation and functioning of the child, and their ability to interact with their environment, also underpins the World Health Organization's (WHO) International Classification of Functioning, Disability and Health for Children and Youth (ICF-CY) (WHO, 2007). The ICF-CY is designed to document the characteristics of the developing child and the influence of their surrounding environment (WHO, 2007).

2.3.2 Input-Process-Outcome Model. A broad aim of those concerned with the development of educational policies, is to support the development of pupils through the design and implementation of educational systems (Douglas et al., 2016). An example of this conceptualisation is the "input-process-outcome model", which has been adapted to the field of education, and utilised by the European Agency for Development in Special Needs Education (EADSNE) (Douglas et al., 2016; Kyriazopoulou & Weber, 2009, pp. 14-15). This model has three elements: input and resources, education processes, and outcomes (Kyriazopoulou & Weber, 2009). Within the field of education, input and resources denote the financial resources, legislation, infrastructure, and qualification levels of teachers, provided to the education system, to achieve a specific outcome (Kyriazopoulou & Weber, 2009). The

inputs and resources are then transformed by the education processes into outputs and outcomes (Douglas et al., 2016). These are then grouped into "attainment-related outcomes", concerned with the traditional curriculum, and "wider curriculum-related outcomes", concerned with the well-being and independence-related outcomes (Douglas et al., 2016, p. 99; Kyriazopoulou & Weber, 2009). As such, the input-process-outcome model encompasses the biopsychosocial view of special education as it adopts a holistic understanding of education. Douglas et al. (2016) alluded that different countries draw upon classroom, national and international assessments, to gather information in relation to these outcomes.

2.3.3 Policy and Legislation. International policy and legislative initiatives have been somewhat consistent with this reported shift in EP practice, from a medical model approach to a biopsychosocial approach. In 2007, the EADSNE commissioned a project examining assessment that supports inclusion in mainstream settings, and informs teaching and learning (Watkins, 2007). It was stated that the medical approach to assessment increased the probability of segregation for pupils by focusing on their deficiencies (Watkins, 2007). By contrast, a biopsychosocial approach supported and promoted their inclusion, by focusing on their strengths, and using the assessment information gathered to inform teaching and learning strategies (Watkins, 2007). This report endorsed 'inclusive assessment' in mainstream primary settings, whereby policy and practice are designed to promote the learning of all pupils (Watkins, 2007). The allocation of support, placement and additional resourcing to meet a pupil's needs, should be informed by, but not entirely upon, the initial identification or diagnostic procedures (Watkins, 2007).

In the United States, the Individuals with Disabilities Education Improvement Act (IDEIA) prevails and mandates equity, accountability and excellence in education for pupils with disabilities (U.S. Department of Education, 2004; Yell et al., 2006). This act stipulates that for a pupil to access special education resource provision, a full individual assessment and diagnosis of a disability is a prerequisite (U.S. Department of Education, 2004). By contrast, in the United Kingdom, New Zealand, South Africa and Germany, a diagnosis of a disability is not required to access additional resources in schools (NCSE, 2013). Rather, an assessment is required that identifies that the pupil has a SEN (NCSE, 2013). It is reported, nonetheless that school psychological practice in the United States, has oriented towards a problem solving, Response to Intervention (RtI) systematic approach, for assessing and supporting struggling pupils (Fan et al., 2016; Saeki et al., 2011). This approach is becoming established in the United

States, following its inclusion in the reauthorisation of the IDEIA (Desforges & Lindsay, 2010; Fan et al., 2016). The IDEIA supports the use of this problem solving approach to determine if the pupil has a specific learning disability (Desforges & Lindsay, 2010). It is conceptualized as a three-tiered, model of service delivery that encompasses universal, targeted and intensive interventions (Kearney & Graczyk, 2014).

2.4 Identification and Assessment of SEN: National Context

2.4.1 Policy and Legislation. The Salamanca Statement promotes an international commitment to inclusive education for all, in particular pupils with SEN (UNESCO, 1994). Ireland is one of ninety-two countries and twenty-five international organisations subscribed to this statement (UNESCO, 1994). It recommends that all pupils with SEN should be educated alongside their peers, within a mainstream setting, to help endorse an inclusive society and reduce discriminatory attitudes (UNESCO, 1994). Nilholm (2020) posits that the Salamanca Statement was an international breakthrough for inclusive education. With the introduction of this law, EPs were required to adopt an outward-look and formative approach to their practice (Szulevicz & Tanggaard, 2017). It laid down new legal foundations for their work (Szulevicz & Tanggaard, 2017). Specifically, EPs transformed from being the body that evaluated when, and to what extent a pupil must receive special needs support, to the body that promoted their inclusion (Szulevicz & Tanggaard, 2017). The Salamanca Statement requires a different set of services from EPs and postulates that they work in new and different ways (Szulevicz & Tanggaard, 2017).

The Education for Persons with Special Educational Needs Act 2004 (EPSEN Act), further represents a milestone in the development of infrastructure to support the education of pupils with SEN (Government of Ireland, 2004; Griffin & Shevlin, 2011; Rose et al., 2015). This legislation stipulates that all pupils with SEN should be educated alongside their peers, unless doing so would impact on the education of others, and would not be in their own best interest (Government of Ireland, 2004). Swan (2014) alluded that an increased number of EPs were initially required to work collaboratively in schools with teachers to make this policy a reality. EPs played an integral role in completing assessments and informing education plans, specific to each individual pupil (Swan, 2014). This legislation espouses a policy of inclusiveness and stipulates that schooling should be based on entitlement, rather than on availability (Swan, 2014). With the introduction of the EPSEN Act, less of an emphasis was placed on a deficit approach in the definition of SEN (Government of Ireland, 2004; Rose et

al., 2017). Rather it encompassed a more inclusive definition that recognised that any definition of SEN must encompass a wide range of difficulties to include physical, sensory, learning disabilities or mental health, or any condition that impacts on how the individual learns (Government of Ireland, 2004; Rose et al., 2017).

The Disability Act 2005 puts in place a strong framework in order to ensure that significant improvements are made to the lives of individuals with disabilities, while also helping to promote social inclusion (Government of Ireland, 2005). This legislation supports the provision of disability specific services and it improves individuals' access to mainstream public services (Government of Ireland, 2005). Under the Disability Act 2005, individuals with disabilities are entitled to have their health and educational needs assessed (Government of Ireland, 2005; Rose et al., 2017). During the last decade in Ireland, there has been substantial changes in special education policy (McCoy et al., 2012). Initially, there was a focus on educational provision for specific categories of children with disabilities (Griffin & Shevlin, 2011). There has since been a shift in special education policy towards a more inclusive view of education delivered to pupils with SEN within a mainstream setting (Griffin & Shevlin, 2011). Within the Irish educational psychological context, a key conceptualisation underpinning legislative and policy documents is that "children and young people are positioned upon a continuum of need, supported within a continuum of provision and by a continuum of services" (Rix et al., 2013b, p. 1).

2.5 Revised Model of Special Education Resources

2.5.1 Inequities with the Previous System. The previous system of resource allocation to schools in Ireland, the GAM and EAL scheme, was unfair and inequitable according to *Circular 0013/2017* and *Circular 0014/2017* (DES, 2016, 2017b, 2017c). A policy advice paper published by the NCSE in 2013 exposed inequities with this system (NCSE, 2013). It was recommended that the system should be changed due to concerns that it was limited to a certain number of high incidence categories (NCSE, 2013). These high incidence disabilities comprised borderline mild general learning disability, mild general learning disability and specific learning disability (NCSE, 2013). There was no mechanism in place to respond to pupils with emerging, short-term needs, whose learning was impacted by situations such as a family bereavement, profound emotional difficulties or physical injuries (NCSE, 2013).

Additionally, while it confirmed social advantage for some pupils, it reinforced social disadvantage for others (NCSE, 2013). Concerns were expressed that low levels of learning support were available in some disadvantaged schools (NCSE, 2013). Rix et al. (2013a) advanced on these inequities by alluding that the system of special education provision did not work well in disadvantaged areas and further questioned whether it represented the most effective use of practitioners and parents' time. Both were already time-poor and the assessment processes in situ in Ireland exacerbated this (NCSE, 2013). As aforementioned, this approach to resource allocation was based on a diagnostic/medical approach (DES, 2016). In order to access resources, an assessment and diagnosis of disability and SEN was a prerequisite (NCSE, 2014). Consequently, providing the same level of support for pupils within defined categories of SEN, regardless of their level of need, overlooked the idea of heterogeneity within any category of SEN (DES, 2016). Tiernan and Casserly (2018) further stated that there were inconsistencies in the implementation of the GAM. Not all pupils received equitable access to supports and resources within schools, were not utilised to their greatest effect (NCSE, 2013; Tiernan & Casserly, 2018).

2.5.2 Pilot of the New Model for Allocating Teaching Resources. In 2014, a working group was established by the NCSE to develop a proposal for the introduction of a New Allocation Model (DES, 2016; NCSE, 2014). It was anticipated that the New Model for the Allocation of Special Education Teaching Resources for Mainstream Schools, would generate a more equitable, transparent and fairer resource allocation system (Kenny et al., 2020; NCSE, 2014). Pupils would have immediate access to additional educational resources and the need for a professional assessment to access such resources would be eliminated (Curtin & Egan, 2021; NCSE, 2014). Consequently, the barriers to accessing resources would be removed and resources would be linked with genuine need (Banks et al., 2015; NCSE, 2014). There would also be tangible benefits for pupils with SEN and the unnecessary or inappropriate labelling of pupils, from limited assessment processes, would be diminished (NCSE, 2014). Additionally, pupils with the greatest level of need would have access to the greatest level of teaching support (NCSE, 2014). Nonetheless, concerns were expressed that the introduction of this New Allocation Model would generate anxiety within the system and that it would be an additional administrative burden for schools (NCSE, 2014). The DES conducted a pilot of this new model to examine its feasibility during the 2015/2016 school year, in forty-seven schools, at primary and post-primary levels (DES, 2016; NCSE, 2014). Schools engagement with the NEPS

improved as a result of this pilot with teachers feeling upskilled and reflecting more on how they were meeting the needs of pupils with SEN (DES, 2016).

Key findings from the pilot study of the New Model of Resource Allocation highlighted that schools welcomed the flexibility that this new model afforded them (DES, 2016). They were provided with greater levels of autonomy in how they managed and deployed additional resources to meet pupils' needs, as opposed to being predominantly based on a diagnosis of disability (DES, 2016; Fitzgerald & Radford, 2017; McCoy et al., 2020). Nevertheless, this flexibility caused concern for some schools which raised the need for support services to provide them with advice and clarity on how to exercise this flexibility (DES, 2016). Schools' awareness of the NEPS Continuum of Support framework significantly developed as a result of their participation in this pilot study (DES, 2016). Primary schools utilised the Continuum of Support framework as a means of early identification of pupils' learning needs and to provide a staged approach to meet these needs (DES, 2016). It was essentially viewed by teachers as an important basis for prioritising learning needs and for allocating resources equitably (DES, 2016). Schools also reported better collaboration between classroom and support teachers and a small minority were confident that they could respond to pupils' needs immediately, without the need for a professional assessment (DES, 2016). Additionally, through the flexibility of this New Model of Resource Allocation, there was a universal acceptance that more evidence-based approaches and early-interventions were enabled (DES, 2016). However, concerns were raised by teachers that this new model would place additional demands on schools to differentiate their teaching to effectively meet the needs of pupils (DES, 2016). A minority of teachers also expressed concerns that there would be a need for continuing professional development (CPD) training in areas such as differentiation, target setting and the monitoring of pupils' progress (DES, 2016). The NEPS would play a leading role in supporting schools in implementing this new model (DES, 2016).

2.5.3 Schools Educational Profiles. The specifications for professional assessment defined in *Circular 0013/2017* (DES, 2017b) and *Circular 0014/2017* (DES, 2017c), directly impact upon EP practice in Ireland. There has been a fundamental shift in focus from assessment for diagnosis of a disability, to a needs-based approach that informs appropriate interventions (DES, 2017a; Fitzgerald & Radford, 2017). The calculation of a school's allocation for special education teaching is based on two components, a baseline component and a school educational profile component (DES, 2017b, 2017c). A baseline component is provided to each mainstream school to assist with learning difficulties, early intervention and

to support inclusion (DES, 2017b, 2017c). The school educational profile component reflects the number of pupils with complex needs enrolled in the school; the learning support needs of pupils as substantiated by their standardised test results; and the social context of the school, comprising disadvantage and gender (DES, 2017b, 2017c; McCoy et al., 2020). Fitzgerald and Radford (2017) conceptualised that a school's allocation is essentially "based on a whole-school determination of need" (p. 453).

2.6 Recent Developments: SNA Scheme and School Inclusion Model

In line with the New Model for Allocating Teaching Resources to Mainstream Schools for pupils with SEN, a comprehensive review of the Special Needs Assistant (SNA) scheme was undertaken by the NCSE (NCSE, 2018). The SNA scheme has made a substantial contribution to enabling pupils with SEN with additional care needs to be educated in both mainstream and special schools (DES, 2014; NCSE, 2018). This comprehensive review found that the SNA scheme has numerous positive and worthwhile features (NCSE, 2018). It has worked well in meeting the needs of younger pupils with more traditional care type needs such as feeding, mobility and toileting (NCSE, 2018). By contrast, it was found to be less effective in post-primary schools as older pupils developed greater levels of independence (NCSE, 2018). While they may have needed additional support, the pupils did not wish to be viewed as being different to their peers (NCSE, 2018). Additionally, the SNA scheme was flexible in that it enabled the Special Education Needs Organiser (SENO), to adjust the level of support for the pupil in line with their changing needs (NCSE, 2018). Nevertheless, a number of inequities were noted surrounding the narrow focus of this scheme and concerns were raised around its "automatic resource response" (Tiernan et al., 2020, p. 1). Specifically, adult care support was being provided to pupils, with no real consideration if this was the most appropriate response for the pupil (Tiernan et al., 2020). Access to SNA support alone could also not address the diversity and complexity of needs that were present in schools (NCSE, 2018).

Arising from this, a new model of support for pupils with SEN, with additional care needs was proposed (NCSE, 2018; O'Connor & McNabb, 2020). The pilot of the new School Inclusion Model (SIM) commenced in September 2019, across seventy-five primary and post-primary schools (DES, 2019). Similar to the New Model for Allocating Teaching Resources to Mainstream Schools, the SIM removes the requirement of a formal diagnosis in order for pupils with special educational and additional care needs, to access SNA support (DES, 2019; NCSE,

2018). The link between diagnosis and resources will be broken and this new model represents an important step towards a needs-based model (DES, 2019). SNAs, now termed Inclusion Support Assistants (ISAs), will also be offered a national training programme (DES, 2019; NCSE, 2018). This will equip them with the skills and knowledge in how best to support pupils with additional care needs arising from a range of difficulties, including physical, medical, emotional, behavioural, sensory and communication difficulties (DES, 2019; NCSE, 2018). Additionally, an in-school therapy service will be available to provide therapy supports to pupils (NCSE, 2018). The development of regional support teams, to include speech and language therapists, occupational therapists and behaviour support practitioners, will further support the inclusion of pupils in school (NCSE, 2018). The NEPS will also be better staffed to provide more intense, in-school supports to pupils with complex emotional needs (DES, 2019; NCSE, 2018).

2.7 Multi-Tiered Systems of Support

Multi-Tiered Systems of Support (MTSS) provide a framework for the screening and early identification of pupils with academic and behavioural problems (Jimerson et al., 2015). Stoiber and Gettinger posit that intrinsic to a multi-tiered model of service delivery (MTMSD), is the provision of evidence-based, high-quality instruction, and intervention to all students (as cited in Jimerson et al., 2015). McIntosh and Goodman (2016) encapsulated MTSS as a comprehensive, coherent system that incorporates instruction, assessment and decision making, within a tiered model of service delivery. MTSS are designed to address the multiple domains in education such as, literacy and social and emotional competence (McIntosh & Goodman, 2016). Within an international EP context, two approaches have been implemented, the multi-tiered RtI framework (Brown-Chidsey & Steege, 2010), and the Positive Behavioral Interventions and Supports (PBIS), multi-tiered framework (Sugai & Horner, 2002). MTSS is an umbrella framework that includes both RtI and PBIS (Charlton et al., 2020). Within an Irish EP context, it is pertinent to discuss the importance of the Continuum of Support framework, the multi-tiered model of service delivery, provided by the NEPS to schools (NEPS, 2007, 2010a).

2.7.1 RtI Model of Service Delivery. RtI is an auspicious model of service delivery and special education identification (McIntosh et al., 2011b). It encompasses a continuum of support to pupils through three tiers of intervention (McIntosh et al., 2011b). Given this conceptualization, tier one, the preventative tier, encompasses whole-group instruction and

universal screening to prevent serious difficulties from emerging (Berkeley et al., 2009; McIntosh et al., 2011b). A critique of this tier is that universal screening may over-identify pupils requiring special education and under-identify pupils with listening, writing, reading comprehension, oral language and math reasoning difficulties (Ferri, 2012). Tier two, the secondary intervention tier, is comprised of core instructional interventions to remediate the identified difficulties (Berkeley et al., 2009; McIntosh et al., 2011b). The same instruction with more intensity is provided rather than an alternative approach (Ferri, 2012). The tertiary intervention tier, tier three, constitutes the intensive, research-based interventions implemented to address difficulties that persist, despite the provision of additional support (Berkeley et al., 2009; McIntosh et al., 2011b).

The RtI model of service delivery essentially emerged as an alternative to the discrepancy model of identifying learning disabilities (Berkeley et al., 2009; Little et al., 2017; McIntosh & Goodman, 2016). McIntosh and Goodman (2016) posit that RtI is a natural way to teach and it ensures that all pupils can learn. This systems-level approach to school psychology service delivery utilizes the expertise of school psychologists in decision-making, consultation, collaboration and assessment (Little et al., 2014). RtI essentially endorses the "Paradox of School Psychology" proposed by Gutkin and Conoley (1990, p. 203). Specifically, in order for school psychologists to support pupils effectively, they must embrace consultation and collaboration with parents, school staff and the community (Little et al., 2014). Additionally, the implementation of RtI aims to enhance the interface between general and special education teachers (Castro-Villarreal et al., 2016; Gomez-Najarro, 2020) and to maximise the learning of all students (McIntosh et al., 2011b).

2.7.2 PBIS Model of Service Delivery. Haraway (2012) alluded that the RtI and PBIS movements have endeavoured to formalize intervention systems to address the needs of all pupils. An intrinsic component of both multi-tiered frameworks is the need for initial and ongoing assessment to guide decision making (Haraway, 2012). Horner and Sugai (2015) propound that the school-wide PBIS framework improves social and educational outcomes for all pupils. The overarching aims of this framework are to promote positive behaviour, reduce undesirable behaviour, and enhance a positive school climate for all pupils (James et al., 2018; McIntosh et al., 2016). A notable critique of this framework is that punishment is viewed as the most effective response to disruptive behaviour (Swain-Bradway et al., 2013). A three-tiered continuum of service delivery is implemented to optimize development, support the range of pupils' needs, and promote positive school experiences for pupils (James et al., 2018).

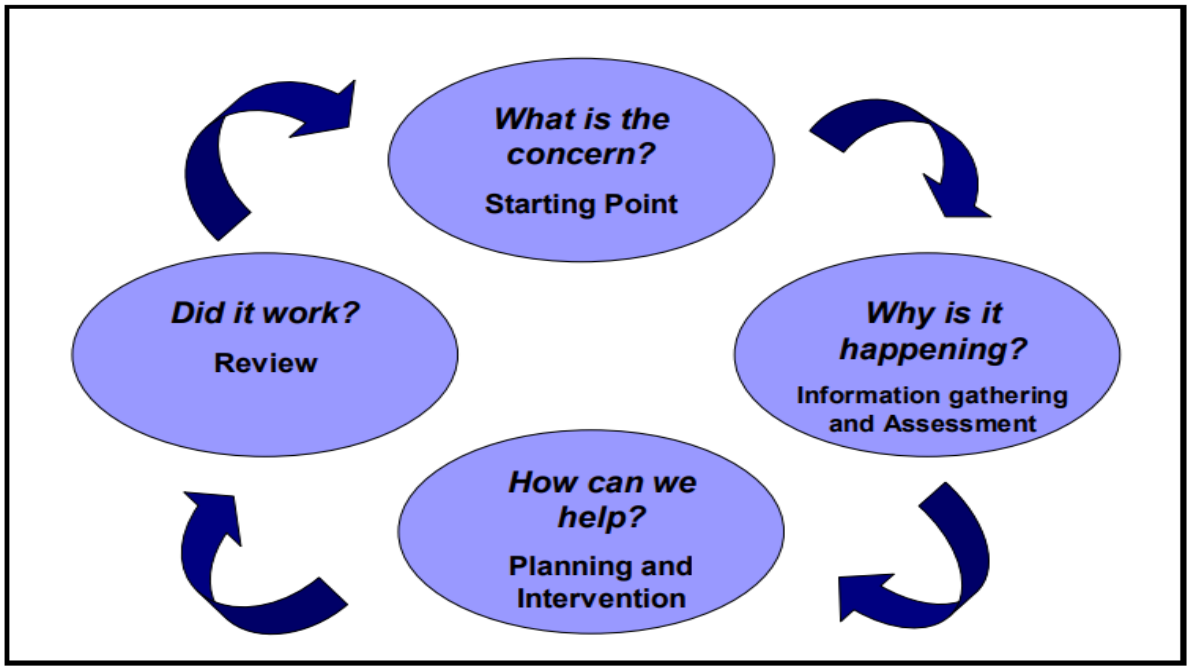
The levels of support range from school-wide assessment and instruction in tier one, the primary prevention level, to moderate targeted interventions for at-risk pupils in tier two, the secondary prevention level (Haraway, 2012; Horner & Sugai, 2015). Tier three, the tertiary prevention level, encompasses individualised and intensive supports for pupils with continual deficits (Haraway, 2012; Horner & Sugai, 2015; James et al., 2018). This evidence-based approach leads to improvements in academic achievement for pupils (McIntosh et al., 2011a), while also boosting staff morale and collegiality (Bradshaw et al., 2008). In essence, RtI and PBIS offer a structure within which to build an inclusive school (Bornstein, 2015). Additionally, they encourage teachers to model a strength-based, rather than a deficit-based approach, with their pupils (Hershfeldt et al., 2012).

2.7.3 The Continuum of Support Framework. Within an Irish educational psychological context, it is germane to talk about the importance of the Continuum of Support framework in the identification and monitoring of pupils' needs (NEPS, 2007, 2010a). The NEPS operates a tiered service delivery model to support schools and the Continuum conceptualises support in its broadest sense and embodies the learning, social, emotional and behavioural needs of the pupil (NEPS, 2003, 2007, 2010a). Additionally, implementing this framework enables schools to identify pupils' needs associated with sensory, physical, communication and language difficulties (DES, 2017a). It recognises that SEN occur along a continuum and as such, interventions are incremental and informed by careful monitoring of progress (DES, 2017a; NEPS, 2007). Moreover, it ensures early intervention and promotes the matching of need with support (DES, 2017a; NEPS, 2007).

The Continuum of Support framework is closely aligned with the RtI model of service delivery and it is an effective process for building capacity in the school system (NEPS, 2007, 2010a; Tiernan & Casserly, 2018). This phased approach to identifying and responding to pupils' needs, represents a distinct move away from a medicalised view of special education, which was aligned with a traditional assessment role of the EP (Shevlin et al., 2013b). Rather, it encompasses a biopsychosocial view that adopts a holistic approach and the EP explores the interplay of biological, psychological and social factors (Shevlin et al., 2013b). The role of the EP is to provide a psychological service to schools as part of this problem-solving model of assessment and intervention (Shevlin et al., 2013b). Figure 2.1 demonstrates the problem-solving process implemented to ensure that schools identify and respond to pupils' needs in a flexible way (DES, 2017a; NEPS, 2007, 2010a). Essentially, this problem-solving process is one of assessment, intervention and review (NEPS, 2007, 2010a).

Figure 2.1

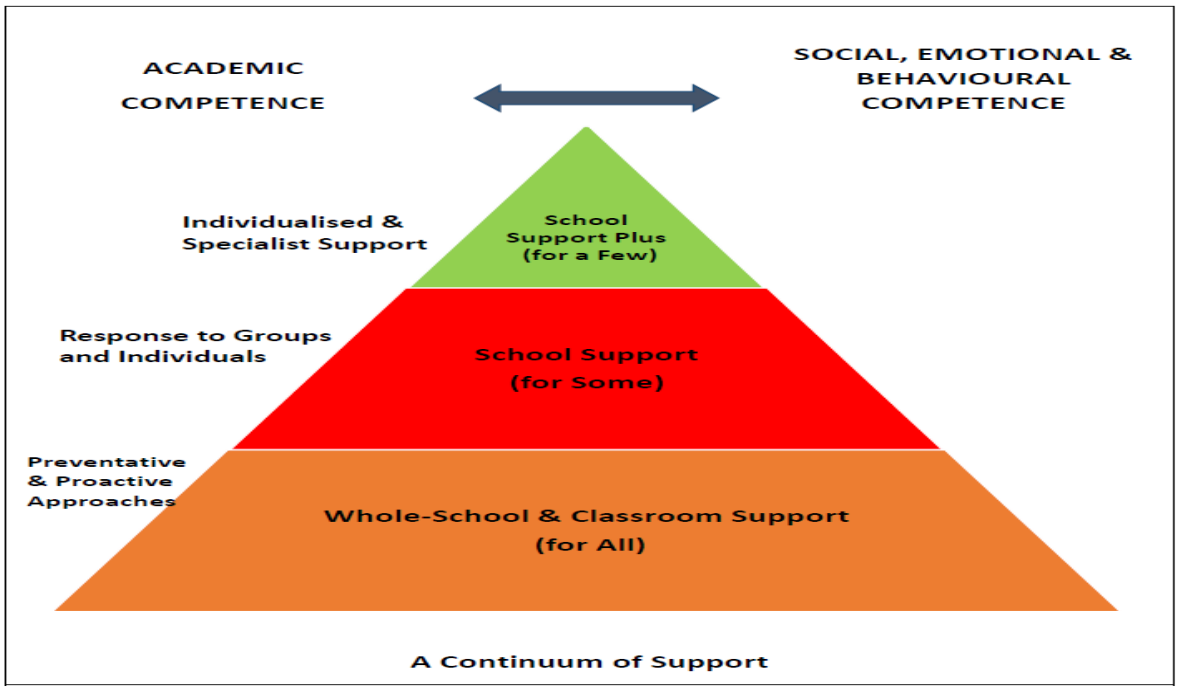
The NEPS (2007, 2010a) Four-Stage Problem-Solving Process



This tiered service delivery model is comprised of three distinct school based processes: Whole-School and Classroom Support for All, School Support for Some and School Support Plus for a Few (DES, 2017a) (see Figure 2.2). With tier one, the Whole-School and Classroom Support for All, the NEPS focus on building capacity in schools to provide universal evidence-based approaches to all pupils to promote academic, social and emotional competencies (NEPS, 2007). It is a process of prevention and early identification, effective mainstream teaching and response to difficulties (Griffin & Shevlin, 2011). Work at tier two, School Support for Some, focuses on identifying individuals and groups of pupils in need of early and more intensive group programmes (NEPS, 2007). Griffin and Shevlin (2011) posit that it is a process of assessment and intervention. With tier three, the School Support Plus for a Few, the NEPS engage in collaborative problem-solving with school staff, parents and other external professionals, to support pupils with complex needs and/or severe difficulties (Griffin & Shevlin, 2011; NEPS, 2007). It is characterized by intensive individualized programmes (Griffin & Shevlin, 2011). Special education teachers are expected to collaborate with class teachers to support pupils across tiered systems of support (Shepherd et al., 2016).

Figure 2.2

NEPS Tiered-Level of Support to Schools: A Continuum of Support (DES, 2017a)



2.8 Systematic Review

The previous sections set the context for the current study and focused on the salient components of the national and international context of this research. It essentially encompassed the global shift that has occurred from a medicalised view of special education, which was aligned with a traditional assessment role of the EP and focused on within-child factors, to a biopsychosocial view, that considers the social and environmental factors (Curtin et al., 2014; Davis & Deponio, 2014; Kennedy et al., 2008). This biopsychosocial model of SEN emphasises the participation and functioning of all pupils and has moved the frame of reference from the clinic to the school (Curtin et al., 2014). Rather than pupils being identified as having SEN through a standard biomedical framework, they are now being identified by teachers as requiring additional support (Ainscow, 2005; Curtin et al., 2014; Herzer, 2016). Herzer (2016) postulated that by looking through this biopsychosocial lens, pupils with SEN are no longer viewed as a problem to be managed.

The next section will systematically review the empirical evidence on class teachers and special education teachers' perspectives on response to intervention approaches to SEN.

Class teachers collaboration with colleagues strengthens their capacity for inclusion and can improve educational outcomes for pupils with SEN (Mulholland & O'Connor, 2016). A systematic review of the literature was conducted to enable a complete, yet concise review of the literature pertaining to the research area and to synthesise existing knowledge (Paez, 2017; Robinson et al., 2011). Additionally, systematic reviews are an invaluable source for identifying potential research gaps (Robinson et al., 2011). As such, it is envisaged that this study will be an example of "evidence-based research", as the systematic review will enable the researcher to identify gaps, in knowledge of information within the literature (Robinson et al., 2011, p. 1328).

2.9 Phase Two of the Literature Review: A Systematic Approach

Gough et al. (2013) conceptualized that systematic reviews "provide a meticulous way of finding relevant, high quality studies; and integrating their findings to give a clearer and more comprehensive picture than any single study can produce" (p. 5). They reduce bias through the implementation of rigorous and transparent methods to identify, critically appraise and synthesise evidence, to "generate empirically attained answers to focused research questions" (Paez, 2017, p. 233). Systematic reviews are essential to the practice of evidence-based research (Robinson et al., 2011; Perestelo-Pérez, 2013) and have become an extensive area of methodological development (Gough et al., 2017). The first step in preparing a systematic review is to clearly frame the review questions the researcher seeks to answer (Squires et al., 2013). Two discrete questions guided the systematic review for the current study:

1. What are class teachers and special education teachers' perspectives on response to intervention approaches to SEN within multi-tiered systems?
2. What are class teachers and special education teachers' perspectives on the barriers and benefits to implementing multi-tiered systems?

2.10 Key Concepts and Terminology Defined

Gough (2007) stated that when conducting a systematic review, the conceptual assumptions inferred in the review question must be defined. This then drives the methods of the review and how the review question is answered (Gough, 2007). Concepts within the review questions are defined as follows.

2.10.1 Population. This review is interested in class teachers' and special education teachers' perspectives on response to intervention approaches. Class teachers have first-line responsibility for the education of each pupil in their class (DES, 2017a; Harrison et al., 2016). They must ensure that their lessons are planned carefully to make certain that the diverse needs of pupils within their classroom are met (DES, 2017a; Engelbrecht et al., 2015). Smeets and Roeleveld (2016) stipulated that it is the class teacher who initially identifies that the pupil with SEN requires additional attention and support. Teaching approaches and methodologies are implemented by class teachers to facilitate the inclusion of pupils with SEN in their classroom (DES, 2017a; Engelbrecht et al., 2015).

Class teachers collaboration with special education teachers, can intrinsically strengthen their capacity for inclusion (Mulholland & O'Connor, 2016), by both encouraging and facilitating professional development through the sharing of their knowledge and expertise (Horn & Little, 2010). This support network essentially characterises inclusive school provision (Gebhardt et al., 2015; Keating & O'Connor, 2012) and special education has long been characterized by collaboration (Friend et al., 2010). Teaching approaches adopted by special education teachers include team-teaching initiatives, co-operative teaching, early intervention, and small group or individual support (DES, 2017a; Friend et al., 2010). In Ireland, special education teachers consult with class teachers to generate intervention plans for pupils to address their priority learning needs and to achieve targets identified in their Continuum of Support plan (DES, 2017a).

2.10.2 Response to Intervention. Response to intervention is at the forefront of special education reform and is considered a roadmap for pupil success in the mainstream classroom (Brown-Chidsey et al., 2009; Smith & Okolo, 2010). Nilvius (2020) alludes that around the world, different approaches are implemented by school systems, practitioners, stakeholders, policy makers and researchers, to address pupils' academic, social and/or behavioural difficulties. Within the current systematic review, the review questions investigate response to intervention approaches to SEN. In this context, response to intervention relates to the problem-solving approaches implemented by class teachers and special education teachers within MTSS, to assist pupils with SEN (Jimerson et al., 2007). Such approaches can consist of collaboration and communication with colleagues (Brown-Chidsey et al., 2009), evidence-based classroom instruction, pupil assessment, universal screening, and the continuous monitoring of a pupil's progress (Smith & Okolo, 2010).

2.10.3 SEN. Pupils with SEN are considered to be a vulnerable group of learners (Humphrey et al., 2013; NCSE, 2013). Squires and Dyson (2017) further suggest that pupils with SEN are at considerable risk of leaving formal education, prior to successfully completing post-primary education. The education of learners with SEN has been a topic of considerable controversy and at the policy level, there has been a noteworthy ideological shift towards promoting their inclusion (Humphrey et al., 2013). The current legislation informing practice is the EPSEN Act (Desforges & Lindsay, 2010; Government of Ireland, 2004). Within an Irish context, the EPSEN Act recognises that SEN can arise from enduring sensory, physical, mental health or learning disability:

> "Special educational needs" means, in relation to a person, a restriction in the capacity of the person to participate in and benefit from education on account of an enduring physical, sensory, mental health or learning disability, or any other condition which results in a person learning differently from a person without that condition and cognate words shall be construed accordingly. (Government of Ireland, 2004, p. 6)

2.11 Search Strategy/Literature Search

2.11.1 Search Strategy Review Question 1. A comprehensive search of the peer-reviewed literature was conducted between July 8th, 2020 and July 14th, 2020. The following databases were searched: Academic Search Complete, British Education Index, Education Full Text, Education Source, Education Resource Information Center (ERIC), American Psychological Association (APA) PsycArticles and APA PsycInfo.

Keywords pertaining to the review question (see Table 2.1) were searched. The keywords were identified to reflect the range of concepts being reviewed (Daniels, 2019). To ensure a replicable and transparent systematic review was conducted, the selected keywords were precise enough to reflect the review question, and broad enough to guarantee that relevant studies would be identified (Daniels, 2019). Search filters were applied in line with the exclusion criteria shown in Table 2.2. The records were screened by one researcher and separately reviewed for precision and detail, by two other members of the research team (Centre for Reviews and Dissemination [CRD], 2009). If discrepancies occurred, they were resolved through consensus and arbitration with the research team (CRD, 2009).

An initial search generated 202 articles. These were screened against inclusion and exclusion criteria outlined in Table 2.2, reducing the search to 29 studies for screening of abstracts. A total of 7 articles remained for full text screening against inclusion and exclusion criteria and 5 articles were included for review. In line with Liberati et al. (2009), a flowchart delineating the literature search and screening process is represented in Figure 2.3. A summary of included studies is provided in Appendix A and Appendix B provides the full list of excluded articles and rationale. The small number of relevant studies is of note in itself and points to the novelty of this field in practice and the need for increased empirical research in the area. Nevertheless, the limited number of available articles for inclusion is also acknowledged as an overall limitation of this systematic review.

Table 2.1

Database Search Items Review Question 1

Databases	Search Terms
Academic Search Complete, British Education Index, Education Full Text, Education Source, ERIC, APA PsycArticles, APA PsycInfo	teachers* OR special education teachers AND multi-tiered systems of support* OR MTSS* OR response to intervention AND approaches* OR strategies teachers* OR special education teachers AND multi-tiered systems* OR MTSS* OR RtI* OR PBIS* OR Continuum of Support AND approaches* OR strategies* OR problem-solving processes AND perspectives* OR perceptions* OR views [a]

Note. The same databases were searched.

[a] Two distinct lists of search terms were utilised to identify as many relevant articles as possible and of varying methodological design (Higgins et al., 2020). Important articles may be missed if alternative terms to key concepts are not included in the search (Higgins et al., 2020).

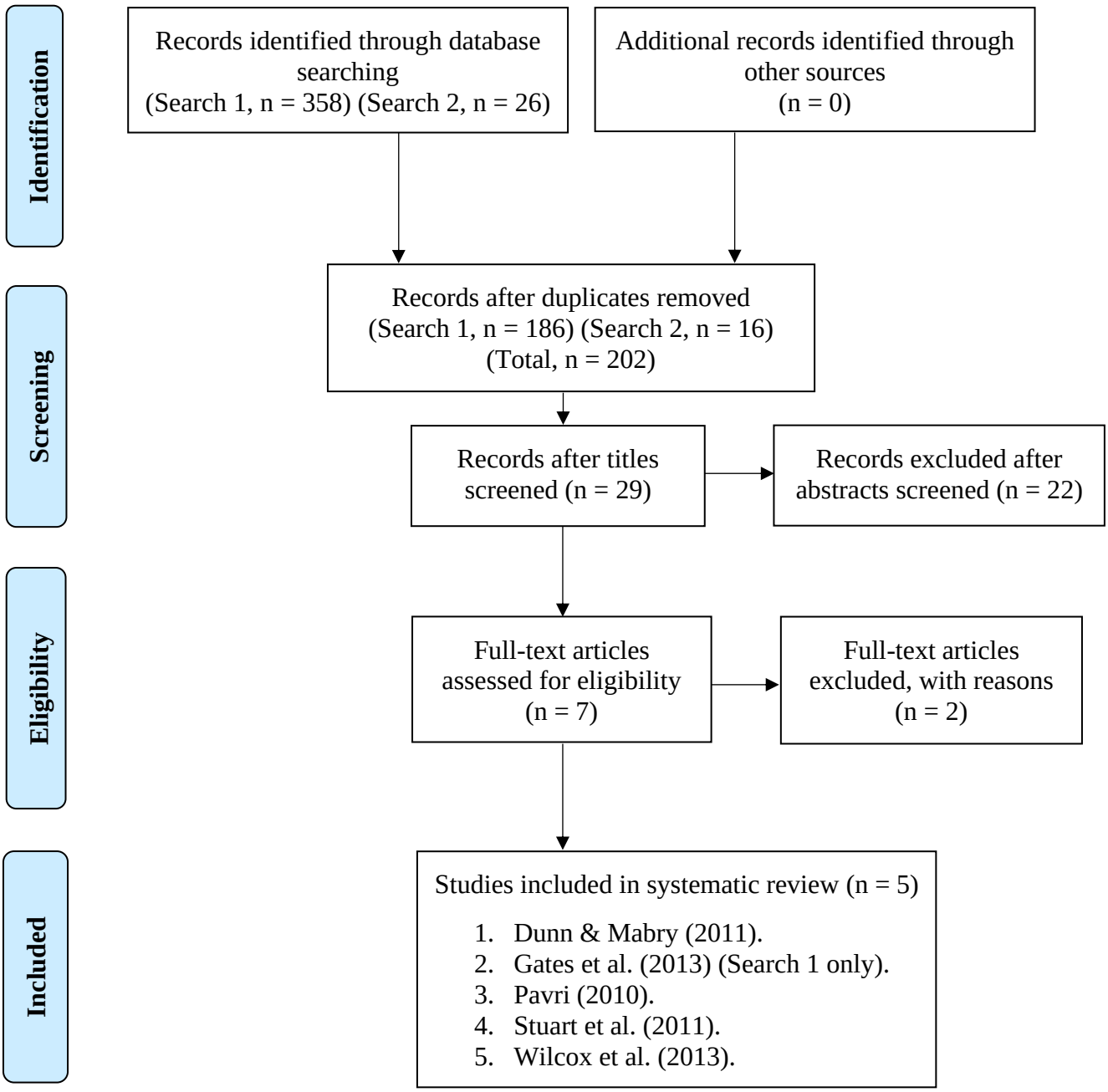
Table 2.2

Inclusion and Exclusion Criteria

Domain	Inclusion Criteria	Exclusion Criteria	Rationale
1. Type of publication	Studies published in peer-reviewed academic journals	Studies not published in peer-reviewed academic journals	To ensure the academic rigour of the review findings
2. Language	Study must be written in the English language	Study is not written in the English language	For the study to be understood by the author, it must be written in English
3. Journal access	Full text only	Research containing abstract only and/or references only	To allow for a full and comprehensive examination of the study
4. Research design	The study provides primary, empirical data	The study does not provide primary, empirical data (e.g. reviews, commentaries)	This means that the data is original (e.g. not a meta-analysis or a review)
5. Participants	Participants in the studies must include class teachers or special education teachers working in mainstream primary or secondary schools	Participants in the studies do not include class teachers or special education teachers working in mainstream primary or secondary schools	Ensures appropriate population is being targeted
6. Model of service delivery	Studies must include a MTSS (e.g. RtI, PBIS, Continuum of Support)	Studies do not include a MTSS	The review seeks to gain an insight into the problem-solving approaches implemented by the participants within MTSS to support pupils with SEN
7. Analysis	Studies include participants perspectives of response-to-intervention approaches (review question 1) or the barriers and benefits to implementing multi-tiered systems (review question 2)	Studies did not include participants perspectives of response-to-intervention approaches (review question 1) or the barriers and benefits to implementing multi-tiered systems (review question 2)	To ensure a thorough investigation of the review questions

Figure 2.3

Flow Chart Delineating the Literature Search and Screening Process: Review Question 1



2.11.2 Search Strategy Review Question 2. The second wave of the systematic review was carried out between July 20th, 2020 and July 25th, 2020. Both manual and database searches took place. Chapman et al. (2009) posit that manual literature searches minimise retrieval bias and are an integral component of the search process in any systematic review. They ensure scientific standards and systematic reviewers are encouraged to routinely practice manual searches to minimise bias (Chapman et al., 2009; Vassar et al., 2016). In accordance with the previous search strategy, the recommendations of Daniels (2019) and the CRD (2009) were adhered to by the reviewer.

Keywords pertaining to the review question (see Tables 2.3 and 2.4) were searched. Search filters were applied in line with the exclusion criteria shown in Table 2.2, in Section 2.11.1. An initial search of 1,091 titles was generated. Titles were screened against inclusion and exclusion criteria outlined in Table 2.2, reducing the search to 14 studies for screening of abstracts. A total of 13 articles remained for full text screening against inclusion and exclusion criteria and 8 articles were included for review. In line with Liberati et al. (2009), a flowchart delineating the literature search and screening process is represented in Figure 2.4. A summary of included studies is provided in Appendix A and Appendix B provides the full list of excluded articles and rationale.

Table 2.3

Database Search Items Review Question 2

Databases	Search Terms
Academic Search Complete, British Education Index, Education Full Text, Education Source, ERIC, APA PsycArticles, APA PsycInfo	teachers* OR special education teachers AND multi-tiered systems of support* OR response to intervention* OR PBIS* OR Continuum of Support AND barriers* OR benefits teachers* OR special education teachers AND MTSS* OR RtI* OR PBIS* OR Continuum of Support AND implementation* OR barriers* OR benefits AND perceptions* OR perspectives* OR views [a]

Note. The same databases were searched.

[a] Two distinct lists of search terms were utilised to identify as many relevant articles as possible and of varying methodological design (Higgins et al., 2020). Important articles may be missed if alternative terms to key concepts are not included in the search (Higgins et al., 2020).

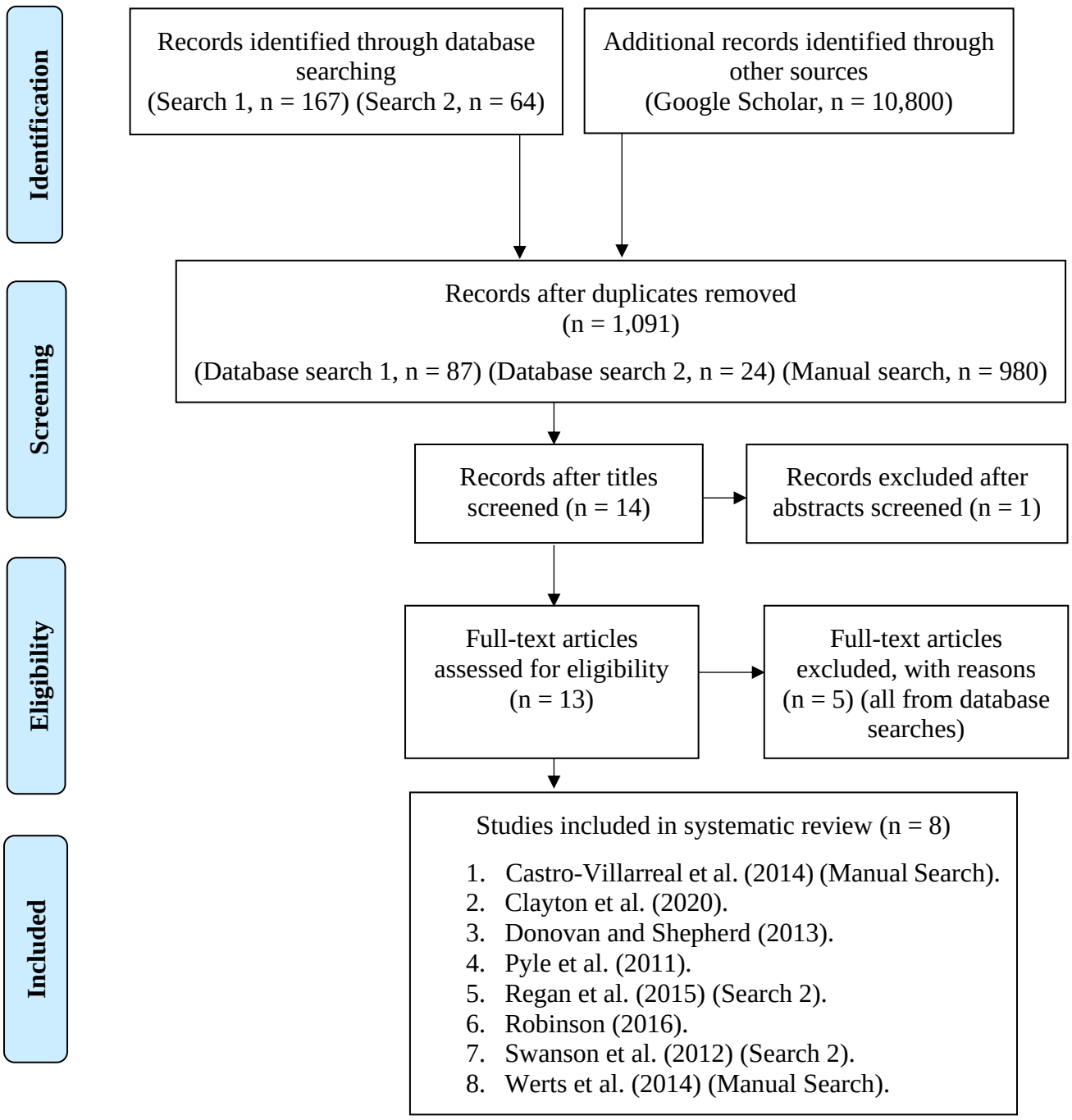
Table 2.4

Manual Search Items Review Question 2

Manual Search Item	Search Terms
Google Scholar	teachers* OR special education teachers AND multi-tiered systems of support AND barriers* OR benefits

Figure 2.4

Flow Chart Delineating the Literature Search and Screening Process: Review Question 2



2.12 Systematic Review of the Literature

The following sections provide an overview of Gough's (2007) WoE Framework applied. A critical analysis of the studies' participants and design follows, consequently mapping the research field (Gough, 2007). A synthesis of evidence relative to the review questions, conclusions and directions for future research are then outlined (Gough, 2007). In line with the recommendations of Gough et al. (2017), the thirteen studies identified through the literature search process are summarised in Appendices C and D. This summarised information provides an overview of the key characteristics of the large quantities of information (Gough et al., 2017).

2.12.1 Critical Analysis Framework. Each of the studies included were critically appraised using Gough's (2007) WoE Framework. There are four categories within the framework: methodological quality (WoE A); methodological relevance (WoE B); and topic relevance (WoE C) (Gough, 2007). For each study, the three scores were averaged to determine overall Weight of Evidence D (WoE D) (Gough, 2007).

2.12.2 WoE A: Methodological Quality. Gough (2007) stipulated that WoE A is a non-review specific judgement about the coherence and integrity of the evidence presented in the research study. Relative to the current review, the risk of bias in included studies was assessed with quality checklists (Higgins et al., 2017). An adapted version of Brantlinger et al. (2005) was utilised to evaluate the methodological quality of studies that were qualitative in nature. The WoE A was calculated by averaging the 'Credibility Measures' and 'Quality Indicators' proposed by Brantlinger et al. (2005). Each credibility measure and quality indicator is made up of a number of sub criterions (Brantlinger et al., 2005). See Appendices E to G for each of the selected criterion's name, explanation, coding and rating.

For studies that were mixed-method in nature, the 'Mixed Methods Appraisal Tool' (MMAT) was used (Hong et al., 2018). Ratings of 'high', 'medium', and 'low', were prescribed by the researcher (see Table 2.5). The quality of the qualitative and quantitative components were individually appraised, in addition to the mixed methods components, to ensure that no important threats to trustworthiness were present in the studies (see Appendix H) (Hong et al., 2018; Pace et al., 2012).

Table 2.5

WoE A Mixed Method Descriptors

Weighting	Descriptor
High (3).	Study consisted of 14-17 quality indicators across all relevant areas (see Appendix H).
Medium (2).	Study consisted of 10-13 quality indicators across all relevant areas.
Low (1).	Study consisted of 6-9 quality indicators across all relevant areas.
Zero (0).	Study consisted of 0-5 quality indicators across all relevant areas.

2.12.3 WoE B: Methodological Relevance. Gough (2007) stated that WoE B is a review specific judgement relating to the appropriateness of the study design in answering the review question. The research has cautioned against the use of rigid appraisal models (Barbour, 2001; Sandelowski & Barroso, 2002) and a flexible use of checklists is encouraged. Relative to the current review, the quality indicators implemented by the author for WoE B were standardised and valid. In line with Gough (2007), a broader approach was adopted and studies of both qualitative and mixed-methods design were reviewed.

Studies that were qualitative in nature were appraised using an adapted version of the summary frameworks proposed by Walsh and Downe (2006) and Letts et al. (2007) for qualitative research appraisal (see Appendix I). This adapted framework was used reflexively and imaginatively by the author to identify the strengths and limitations of the papers included in the review (Letts et al., 2007; Walsh & Downe, 2006). See Appendix J for the criteria and ratings appointed to each study. Additionally, it is sufficiently compact to be of use to other researchers and is indicative of quality in the research papers (Letts et al., 2007; Walsh & Downe, 2006).

Studies that were mixed-method in nature were appraised using an adapted version of the scoring system proposed by Pluye et al. (2009) and O'Cathain et al. (2008) (see Appendix K). Ratings of 'high', 'medium', 'low' and 'zero', were prescribed by the researcher (see Appendix L). Powell et al. (2008) alluded that the use of mixed-methods techniques in the field of educational psychology, results in a richer data collection and a better understanding of the underlying phenomena.

2.12.4 WoE C: Topic Relevance. WoE C is a review-specific judgement (Gough, 2007). It refers to the relevance of the focus of the evidence for the review question (Gough, 2007). In order for the study to receive a rating, the criteria for that weighting must be met (see Appendices M and N). The WoE C criteria was devised by the reviewer, with reference to inclusion and exclusion criteria stipulated.

2.12.5 WoE D: Overall Weighting of Studies. WoE D is a combination of WoE A, WoE B and WoE C, to form an overall assessment of the extent to which the study contributes evidence to answering the review question (Gough, 2007). This score is then converted to a weighting. This weighting is based on the numerical ratings evident in Table 2.6. The Overall WoE D for each of the thirteen studies included in the systematic review is shown in Table 2.7.

Table 2.6

WoE D Weighting Descriptors

Numerical Rating	Weighting
Above 2.5	High
1.5 – 2.49	Medium
0.5 – 1.49	Low
Less than 0.5	Zero

Table 2.7

Overall Weight of Evidence (WoE D) for Each Study

Studies	Methodological Quality (WoE A)	Methodological Relevance (WoE B)	Topic Relevance (WoE C)	Overall Weight of Evidence (WoE D)
1. Castro-Villarreal et al. (2014).	Medium (1.73).	Medium (2).	Medium (2).	Medium (1.91).
2. Clayton et al. (2020).	Low (1.25).	Medium (2).	Medium (2).	Medium (1.75).
3. Donovan and Shepherd (2013).	Medium (1.98).	Medium (2).	Medium (2).	Medium (1.99).
4. Dunn and Mabry (2011). [a]	Medium (2.37).	Medium (2).	Medium (2).	Medium (2.12).
5. Gates et al. (2013). [a]	High (3).	Medium (2).	Medium (2).	Medium (2.33).
6. Pavri (2010). [a]	Medium (1.80).	Low (1).	Medium (2).	Medium (1.6).
7. Pyle et al. (2011).	Medium (1.84).	Low (1).	Medium (2).	Medium (1.61).
8. Regan et al. (2015).	High (3).	Medium (2).	Medium (2).	Medium (2.33).
9. Robinson (2016).	Medium (2).	Low (1).	Low (1).	Low (1.33).
10. Stuart et al. (2011). [a]	High (2.5).	Medium (2).	Medium (2).	Medium (2.17).
11. Swanson et al. (2012).	Medium (1.73).	Medium (2).	Medium (2).	Medium (1.91).
12. Werts et al. (2014).	Medium (1.64).	Low (1).	Medium (2).	Medium (1.55).
13. Wilcox et al. (2013). [a]	Medium (2).	Medium (2).	Medium (2).	Medium (2).

[a] Studies related to review question 1.

2.13 Critical Appraisal

2.13.1 Participants. This systematic review evaluated thirteen studies and included data from 794 participants. Study samples included class teachers, special education teachers, school principals, school psychologists, school and district administrators, literacy, maths and curriculum specialists. The sample sizes ranged from $N = 8$ (Stuart et al., 2011) to $N = 211$ (Werts et al., 2014). The sample sizes were reported in all studies, with the exception of the Clayton et al. (2020) study. This negatively impacted on their rating on this criterion on WoE A and WoE C, and also had implications for the representativeness and generalisability of study findings. All thirteen studies failed to address issues regarding data saturation, with none of the studies offering a justification for the chosen sample size. Thus, there is a chance that some of

the studies may have had an insufficient or too large a sample size. Sample size calculation is an important aspect of any study and can provide a reliable indication of the direction in which future research can go (Boddy, 2016; Nayak, 2010). Eleven of the studies neglected to provide information regarding participant inclusion and exclusion criteria, thus negatively impacting on their feasibility and internal and external validity. Castro-Villarreal et al. (2014) and Robinson (2016) defined these criteria, consequently increasing the likelihood of producing reliable and reproducible results (e.g. only those with experience teaching primary or secondary; only those involved in the RtI implementation process in their school). Patino and Ferreira (2018) propound that when designing high-quality research, a standard required practice is establishing inclusion and exclusion criteria for the participants.

2.13.2 Participant Details. An analysis of the 794 participants who took part in the various studies, revealed a diverse range of demographic characteristics. A thorough description of participants is fundamental for generalizing findings and to make comparisons across groups and in replications (Sifers et al., 2002). The demographical information provided, or lack thereof, resulted in variations in the ratings corresponding to demographical information and sample selection on WoE A and WoE C (Brantlinger et al., 2005; Hong et al., 2018).

The provision of demographical information was consistently sparse across two studies (Dunn & Mabry, 2011; Wilcox et al., 2013), with Clayton et al. (2020) providing no demographical information. This had implications for the generalisability of the studies' findings. Additionally, there was a lack of precision regarding gender descriptors across studies (Clayton et al., 2020; Dunn & Mabry, 2011; Robinson, 2016; Werts et al., 2014; Wilcox et al., 2013), resulting in reductions in the scores attributed to the studies on WoE C.

According to the inclusion and exclusion criteria (see Table 2.2), participants must include class teachers and/or special education teachers. Participants in five of the studies included both class teachers and special education teachers (Donovan & Shepherd, 2013; Dunn & Mabry, 2011; Regan et al., 2015; Robinson, 2016; Stuart et al., 2011), with an over representation of a single cohort noted in three of the studies (Castro-Villarreal et al., 2014; Werts et al., 2014; Wilcox et al., 2013). This resulted in variations in the ratings corresponding to sample on WoE C. The use of a more diverse sample was noted by Werts et al. (2014) as a direction for future research, as it would be more instructive. Additionally, all thirteen studies were based in the United States with no studies identified with an Irish cohort. As such, there may have been limited variability in participants perceptions of the differing approaches to MTSS implementation. This resulted in reductions in the scores attributed to the studies on

WoE C. The systematic review is also limited by the narrow focus on one country. Thus, the findings may not generalize to international populations.

2.13.3 Sampling Method. The sampling method used to enlist participants in addition to the rationale for the chosen method, is also an important determinant in the participants feature. A purposive sampling method was employed in all four mixed-methods studies (Gates et al., 2013; Regan et al., 2015; Robinson, 2016; Wilcox et al., 2013). Their high scores on this criterion contributed to their overall weighting on WoE A (Hong et al., 2018) and WoE B (O'Cathain et al., 2008; Pluye et al., 2009).

While purposive sampling is convenient, efficient, and allows for the identification of information-rich participants, it can be subjective and have implications for the generalisability of study findings (Palinkas et al., 2013; Taherdoost, 2016). As such, a combination of sampling strategies is recommended for mixed-methods research (Palinkas et al., 2013). Besides purposive sampling, Gates et al. (2013) used a self-selected sample for phase one participants. Regan et al. (2015) adopted a self-selected sample for phase two participants. Robinson (2016) implemented a multistage sampling procedure with Wilcox et al. (2013) adopting a convenience, heterogeneous sampling approach. This allowed for a diverse range of participants to be selected (Wilcox et al., 2013). The quantitative and qualitative components in mixed-methods research, adds an increased complexity to the sampling procedures (Onwuegbuzie & Collins, 2007), which was accounted for in the scores attributed to the studies on WoE A and WoE B.

The information provided on the sampling methods to recruit participants for the nine qualitative studies, resulted in variations in the ratings corresponding to this criterion on WoE A (Brantlinger et al., 2005). Six of the studies (Castro-Villarreal et al., 2014; Clayton et al., 2020; Dunn & Mabry, 2011; Pavri, 2010; Stuart et al., 2011; Werts et al., 2014) recruited participants through schools or universities and graduate courses. No rationale was provided as to why those sites were chosen or for the sampling methods employed thereafter. By contrast, Pyle et al. (2011) selected five schools through an independent nomination and review process with Donovan and Shepherd (2013) selecting two schools who had begun implementation of the RtI model, six to twelve months prior to the study commencing. Swanson et al. (2012) further identified a school district that had been implementing the RtI framework for at least three years. Consequently, they received a higher rating for this criterion on WoE A. There was a paucity of information provided regarding sampling techniques across

all nine qualitative studies. These shortcomings are contrary to the APA's (2020) recommendations that research papers should be adequately detailed in order to enable others to replicate the study.

2.13.4 Research Design. Thirteen studies with a qualitative or mixed-methods design were reviewed. Higher ratings were provided across WoE A and WoE B for sufficient detail provided regarding methodologies adopted. Given the nature of the two systematic review questions, it is unsurprising that most of the studies identified for review, incorporated a qualitative design. Three studies received a 'High' WoE A rating for methodological quality, nine studies were allocated a 'Medium' WoE A rating, with one study obtaining a 'Low' WoE A rating. Additionally, nine studies received a 'Medium' WoE B rating for methodological relevance, with four studies receiving a 'Low' WoE B rating.

2.13.4.1 Qualitative Design. The qualitative studies used a combination of semi-structured interviews, focus groups, questionnaires, observations, and a review of district documents, federal legislation related to RtI, and state websites. Guest et al. (2017) stipulated that within qualitative research, one-to-one interviews are more effective than focus groups and serve to increase the authenticity and quality of the data collected. Relative to the current review, five studies implemented 'within-method', methodological triangulation (Bekhet & Zauszniewski, 2012), thus providing more comprehensive data and increasing their validity (Clayton et al., 2020; Donovan & Shepherd, 2013; Dunn & Mabry, 2011; Swanson et al., 2012; Stuart et al., 2011). Focus groups were utilised in two of the studies, with Castro-Villarreal et al. (2014) and Werts et al. (2014) implementing a paper and electronic questionnaire. Participant responses were limited in the questionnaires; they varied in length; and clarification on participant responses could not be sought. As such, the validity and reliability of responses were not calculable with the methodological rigour of both studies negatively impacted (Castro-Villarreal et al., 2014; Werts et al., 2014).

Additionally, only four of the studies provided a rationale for the specific qualitative method used. Dunn and Mabry (2011) adopted a phenomenological research approach, whilst also adhering to the precepts of grounded theory methodology. Castro-Villarreal et al. (2014) utilised a grounded theory approach, with Clayton et al. (2020) and Donovan and Shepherd (2013) implementing case study approaches. A theoretical perspective was also identified in the study by Dunn and Mabry (2011) with them adhering to the interpretivist research traditions. As such, the use of a theoretical perspective provided the researchers with a

framework within which to conduct their analysis. Reeves et al. (2008) posit that good theory based research is insightful and applicable in practice. Two of the nine studies (Stuart et al., 2011; Swanson et al., 2012), also noted the use of audit trail. Extensive field notes and a research journal were maintained which established the dependability and confirmability of the research findings and enhanced the rigor and transparency of the research (Bowen, 2009).

2.13.4.2 Mixed-Methods Design. Mixed-methods research is an appropriate research method for addressing complex problems, particularly in the educational field (Scoles et al., 2014). Nonetheless, Klingner and Boardman (2011) posit that the field of special education has failed to embrace multiple research methodologies to address important questions. There is also an inherent need for researchers to be explicit about the add-on value of their mixed-methods design, but this was not apparent in the present review (Doyle et al., 2016).

The four mixed-methods studies identified for review, used a combination of an online quantitative and qualitative survey, a quantitative questionnaire, interviews, structured and targeted observations, and focus groups. A sequential explanatory approach was adopted by Gates et al. (2013) and Regan et al. (2015), with Wilcox et al. (2013) utilising an exploratory mixed-methods design. By contrast, Robinson (2016) did not directly specify the mixed-methods design being implemented. It was interpreted as such by the reviewer given the quantitative and qualitative survey administered to participants. Thus, the lax research design adopted by Robinson (2016) accounted for the 'Low' rating obtained by the study on WoE B and overall WoE D. It essentially was a threat to the quality of the mixed-methods design.

Additionally, Gates et al. (2013) identified 'exploration' as their rationale for using a mixed-methods design, while 'completeness' was identified as the rationale by Regan et al. (2015) and Wilcox et al. (2013) (Doyle et al., 2016). Specifically, 'completeness' provided a more comprehensive account of the phenomenon under investigation, while 'exploration' required an initial phase to be completed in order to develop an instrument, and identify variables to be examined (Doyle et al., 2016). Thus, the comprehensive account of their rigorous research designs contributed to their overall ratings on WoE A and WoE B.

Klingner and Boardman (2011) further stipulated that a criticism of mixed-methods design is that the researchers may not sufficiently integrate the qualitative and quantitative data. The data analysis step can essentially make or break a mixed-methods design and the integration of the design, methods, and interpretation, can enhance the quality of the study and generate rigorous findings (Fetters et al., 2013). An integration of qualitative and quantitative

components was evident in the Gates et al. (2013) and Wilcox et al. (2013) studies and as such, the inferences from the studies were more integrated and coherent (Klingner & Boardman, 2011). Nonetheless, this was not apparent in the Regan et al. (2015) and Robinson (2016) studies, which negatively impacted on the rigor of study findings.

2.13.5 Measures and Analysis. In both the paper and electronic, qualitative questionnaire studies, a pilot study and expert review of questions were conducted to review the preliminary draft of questions, developed predominantly from the existing literature on RtI (Castro-Villarreal et al., 2014; Werts et al., 2014). The use of pilot studies ensured that the feasibility of the questionnaires was evaluated. Constant comparison analysis was also the chosen methodology and analysis in both qualitative studies. Castro-Villarreal et al. (2014) utilised the QSR NVivo 8.0 software programme for analysis, which gave clarity to the coding and analytical processes. It further facilitated the researchers in producing a detailed and comprehensive audit trail, thus serving as a tool for transparency (Woods et al., 2016). Additionally, Werts et al. (2014) noted a response rate of 57% to their questionnaire, which ensured the representativeness of study findings.

In the 'within-method', methodological triangulation studies, the Atlas.ti qualitative data analysis software programme and cross-case analysis were utilised by Clayton et al. (2020). The research protocols for the interviews, focus groups and targeted observations, were designed collaboratively by the research team. The semi-structured interview protocol adopted by Dunn and Mabry (2011) was peer-reviewed and refined, thus increasing the quality and credibility of the interview questions. Thematic content analysis was used and the interviews were digitally recorded and transcribed, thus ensuring their accuracy and credibility. Dunn and Mabry (2011) also conducted first level member checks with Stuart et al. (2011) performing both first and second level member checks. As such, the use of this technique enhanced the trustworthiness of the results, through the participants involvement in the interpretation of data (Birt et al., 2016). Additionally, Stuart et al. (2011) conducted constant comparison analysis; the focus groups were video-taped and audio-transcribed; and the interview protocol was developed from the initial analysis of the focus-group data. A three-step flow analysis was utilised by Swanson et al. (2012) and the focus groups and interviews were audio recorded and transcribed. The focus group protocol was developed using the Vaughn et al. (1996) framework (Swanson et al., 2012). By contrast, limited information was provided by Donovan and Shepherd (2013) on the development of their research protocols, thus impacting on the

generalisability of the study findings. Thematic analysis was employed and the interviews were tape recorded and transcribed.

In the two focus group studies, Pavri (2010) implemented grounded theory approaches to analyse the data with constant comparison analysis adopted by Pyle et al. (2011). To enhance the validity of their study, Pyle et al. (2011) discussed differences in the interpretation of their data and reached consensus through discussions. Pavri (2010) also conducted first level member checks to ensure the accuracy, credibility, validity and transferability of the study with the focus group interviews audiotaped and transcribed.

Of the four mixed-methods studies, the surveys, interviews and observations received equal priority in the Gates et al. (2013) study. This was followed by a series of analyses to establish patterns in the data (Gates et al., 2013). Member checks were conducted to ensure the credibility and accuracy of transcribed interviews, with the researchers establishing transferability by comparing their findings to those of previous research. Constant comparison analysis was implemented by Wilcox et al. (2013) with Spearman's ρ correlation further utilised to validate and elaborate on themes emerging from the qualitative data. Additionally, Regan et al. (2015) analysed quantitative items using Cronbach's alpha with a step-by-step process implemented to analyse qualitative items. The use of NVivo 8.0 software programme for analysis, gave clarity to the coding and analytical processes with first-level member checks ensuring credibility (Regan et al., 2015). Robinson (2016) analysed their qualitative data using topical and descriptive codes with the quantitative data imported to SPSS Version 17.0 for analyses with a series of independent *t* tests conducted. Section 2.13.4.2 outlines critical appraisals of the data analysis step in the mixed-methods studies.

2.14 Findings Review Question 1

'What are class teachers and special education teachers' perspectives on response to intervention approaches to SEN within multi-tiered systems?'

Following a search of relevant databases and application of inclusion and exclusion criteria, five studies were identified as most germane for the current review question. Two studies employed a mixed-methods design (Gates et al., 2013; Wilcox et al., 2013), with the remaining studies utilising a qualitative design (Dunn & Mabry, 2011; Pavri, 2010; Stuart et al., 2011). The five studies were associated with the RtI model of service delivery and as such, the review is limited by the narrow focus on one specific MTSS. It was found that the perspectives of teachers are noticeably absent from the literature (Dunn & Mabry, 2011;

Wilcox et al., 2013). Obtaining their perspectives on MTSS will provide an insight into how they work in practice and will also help inform decision-making related to MTSS policy (Dunn & Mabry, 2011). Class teachers and special education teachers are the most influential in referring, diagnosing and intervening with pupils requiring additional support (Wilcox et al., 2013). Their perspectives impact implementation of MTSS and ultimately, pupil achievement (Gates et al., 2013; Miller et al., 2017; Wilcox et al., 2013). Overall, findings from this review question identified four key response to intervention approaches to SEN within MTSS: Interventions, Assessments, Collaboration and Altering Practices. Participants taught at the elementary level (Dunn & Mabry, 2011; Gates et al., 2013; Stuart et al., 2011), and elementary, middle school and high school levels (Pavri, 2010; Wilcox et al., 2013).

2.14.1 Interventions. Findings from the studies highlighted that participants viewed interventions as a means of reducing referrals to special education as pupils were being supported sufficiently within the mainstream classroom (Dunn & Mabry, 2011; Gates et al., 2013). Nonetheless, their uncertainty and limited awareness of interventions to support pupils with SEN (Dunn & Mabry, 2011; Gates et al., 2013; Wilcox et al., 2013), resulted in a "one size fits all plan" for struggling pupils (Stuart et al., 2011, p. 58). Educators must develop data-informed interventions, to address the specific needs of pupils with SEN (Casserly & Padden, 2018; Florian, 2008; Jones et al., 2016; Rinaldi et al., 2011). Jones et al. (2016) alluded that teachers have adopted too many ineffective, 'quick-fix' interventions within multi-tiered systems, which was accentuated in the current review findings. The special education teachers in the Gates et al. (2013) study expressed the need for training in additional research based interventions. Findings from the Wilcox et al. (2013) study highlighted that teachers required additional training in intervention techniques to support them in differentiating the curriculum for pupils with SEN. Only one study (Pavri, 2010), identified building relationships with pupils and parents as key to the intervention process. Duffy (2007) stipulated that the building of such relationships, strengthens the interventions implemented.

2.14.2 Assessments. Within MTSS, the role of the educator moves from that of initial student referrer, to that of intervention provider and assessor (Dunn & Mabry, 2011; Regan et al., 2015; Wilcox et al., 2013). Assessments were perceived by school personnel as a means of increasing 'RtI buy-in' (Dunn & Mabry, 2011; Gates et al., 2013; Pavri, 2010). Nonetheless, universal screening and ongoing data collection posed challenges for participants, thus hampering their abilities to be effective educators to pupils (Dunn & Mabry, 2011; Gates et al., 2013; Stuart et al., 2011; Wilcox et al., 2013). Findings from three studies suggested that

participants did not know how data should be collected, what data was expected to be collected, and who had primary responsibility for collecting the data (Dunn & Mabry, 2011; Gates et al., 2013; Stuart et al., 2011). While teachers were initially resistant, the process of conducting assessments assisted them in identifying pupils requiring additional support (Dunn & Mabry, 2011; Stuart et al., 2011). Findings from the studies highlighted that participants utilised standardised achievement tests (Dunn & Mabry, 2011; Wilcox et al., 2013); indirect assessments that included rating scales, self-report and interviews with school staff (Gates et al., 2013); Functional Behaviour Assessments (Pavri, 2010) and anecdotal records (Stuart et al., 2011).

Data collection further led to the development of effective interventions (Dunn & Mabry, 2011; Pavri, 2010). It helped identify the pupil's current level of performance and strengths, which then helped identify the most appropriate next-steps (Dunn & Mabry, 2011; Pavri, 2010). Participants further viewed assessment as a means for accessing additional resources (Dunn & Mabry, 2011; Pavri, 2010). Findings from the Dunn and Mabry (2011) study indicated that the availability of resources impacted implementation of the RtI model and buy-in of participants. This falls short of the requirements for adopting a holistic approach to SEN with the assessment process confined to resource allocation, rather than pupil outcomes (Shevlin et al., 2013b).

2.14.3 Collaboration. Collaboration is an integral component for success in inclusive education and is of significant importance for instruction and pupil outcomes (Van Garderen et al., 2012; Zagona et al., 2017). It effectuates inclusive practice in mainstream schools and ensures that pupils with SEN are effectively supported (Carty & Farrell, 2018; Gerdes et al., 2020; Mulholland & O'Connor, 2016). Relative to the current review findings, collaborative efforts amongst schools (Gates et al., 2013) and within schools (Wilcox et al., 2013), were noted as key areas for development. It was perceived essential by class teachers and special education teachers to support their professional development, and to enhance pupil engagement (Dunn & Mabry, 2011; Gates et al., 2013; Pavri, 2010; Stuart et al., 2011; Wilcox et al., 2013).

The collaborative problem-solving processes required by RtI, posed significant challenges for the education professionals (Dunn & Mabry, 2011; Gates et al., 2013; Stuart et al., 2011). Participants did not feel adequately prepared to effectively collaborate with colleagues, thus negatively impacting pupil achievement (Gates et al., 2013; Stuart et al., 2011; Wilcox et al., 2013). Findings from the Gates et al. (2013) study indicated that the decision-making teams benefited from collaborative efforts but that such meetings required time commitments. Participants in the Stuart et al. (2011) and Wilcox et al. (2013) studies reported

concerns relating to addressing individual pupil's academic difficulties as time was not allocated for collaborative planning structures.

The emerging gulf between general and special education teachers was also apparent in the review findings (Dunn & Mabry, 2011; Stuart et al., 2011; Wilcox et al., 2013). Participants in the Dunn and Mabry (2011) study indicated that there was a lack of trust amongst educators and that there was resistance to suggestions. Findings from the Wilcox et al. (2013) study highlighted that there was an ingrained division between class teachers and special education teachers. Teachers were concerned about accountability whilst special education teachers were resentful about their workload (Wilcox et al., 2013). Paju et al. (2016) stipulated that educators with limited skills and collaborative support, were more likely to view the inclusion of pupils with SEN in a less favourable light.

2.14.4 Altering Practices. Effective educators utilise instructional practices and differentiated instruction to maximise the academic learning time of pupils with SEN (McLeskey et al., 2019; Vantieghem et al., 2020). It helps to engage them in meaningful activities within the classroom (McLeskey et al., 2019; Vantieghem et al., 2020). Overall, there was a sense of ambivalence towards altering practices in the review findings. Special education teachers in the Gates et al. (2013) study stipulated that instructional practices presented them with new challenges. Differentiated instruction was being provided to a variety of pupils with SEN and the grouping of pupils was dynamic (Gates et al., 2013).

Teachers in the Wilcox et al. (2013) study were also not overly confident in their abilities to differentiate the curriculum, with enhanced awareness of instructional strategies identified as a key area for development. By contrast, teachers in the Pavri (2010) study, were reflective about their classroom instructional strategies, and continuously reflected on ways to enhance pupil engagement. Paju et al. (2016) posit that high-quality inclusive education is based on knowledgeable educators. Thus, there is a need for more substantive in-service training, as teachers that feel experienced in the classroom, will have higher levels of self-efficacy (Paju et al., 2016). There is a real risk of individualism in the education system, with SEN provision being viewed as an additional instruction, as opposed to integral teaching (Casserly & Padden, 2018; Smeets & Roeleveld, 2016).

2.15 Findings Review Question 2

'What are class teachers and special education teachers' perspectives on the barriers and benefits to implementing multi-tiered systems?'

Following a search of relevant databases and application of inclusion and exclusion criteria, eight articles were identified as being most relevant for the current review question. Two studies adopted a mixed-methods design (Regan et al., 2015; Robinson, 2016), with the remaining studies utilising a qualitative design (Castro-Villarreal et al., 2014; Clayton et al., 2020; Donovan & Shepherd, 2013; Pyle et al., 2011; Swanson et al., 2012; Werts et al., 2014). Seven studies related to the RtI model of service delivery, while Clayton et al. (2020) explored how five schools implemented the PBIS, MTSS. Pyle et al. (2011) noted that teachers' perspectives play a central role but have rarely been included in the RtI research. Teachers should be treated like the professionals they are and as such, they must ensure that they maintain control over their own practice, and decisions that impact their classroom (Pyle et al., 2011). Castro-Villarreal et al. (2014) posit that the perceptions of educators are a necessary component of any school reform effort. Participants in three studies taught at the elementary level (Pyle et al., 2011; Robinson, 2016; Swanson et al., 2012) while participants in the Donovan and Shepherd (2013) study taught at the elementary and middle school levels. The remaining participants taught at the elementary, middle school and high school levels (Castro-Villarreal et al., 2014; Clayton et al., 2020; Regan et al., 2015; Werts et al., 2014). The identified barriers and benefits to implementing multi-tiered systems are discussed below.

2.15.1 Lack of Adequate Training. Participants in the Castro-Villarreal et al. (2014) and Werts et al. (2014) studies, stipulated that interventions were not done with fidelity, due to a lack of adequate training on conducting data collection and progress monitoring for interventions. The participants were consequently uncertain if interventions were being implemented effectively (Castro-Villarreal et al., 2014; Werts et al., 2014). Teachers in the Castro-Villarreal et al. (2014) and Regan et al. (2015) studies expressed the need for training on each tier of RtI and what was expected to happen. Participants further noted a lack of training and understanding on testing procedures, as a barrier to gauging improvements in pupils learning (Pyle et al., 2011). Thus, teachers felt devalued in their professional judgements and were unwilling to implement the process (Pyle et al., 2011).

Findings from seven articles highlighted that there was a need for the provision of adequate training for educators on MTSS, to ensure school-wide implementation of multi-tiered systems and inclusive practices (Castro-Villarreal et al., 2014; Clayton et al., 2020;

Donovan & Shepherd, 2013; Regan et al., 2015; Robinson, 2016; Pyle et al., 2011; Werts et al., 2014). It can be inferred from the review findings that a lack of adequate professional training has had negative implications for educators confidence, thus negatively impacting implementation of inclusive education (Ekins et al., 2016; Lindsay et al., 2013).

2.15.2 Lack of Time and Resources. Lack of time to plan, implement and gather data; lack of resources and staff support; and a lengthy RtI process with constant documentation required, were also identified as significant impediments to effective RtI implementation (Castro-Villarreal et al., 2014; Donovan & Shepherd, 2013; Regan et al., 2015; Pyle et al., 2011; Swanson et al., 2012; Werts et al., 2014). Findings from the Castro-Villarreal et al. (2014) study highlighted that instructional time was lost in the classroom as teachers attempted to implement interventions or collect and record data. Participants were overwhelmed by the scope and pace of work involved (Castro-Villarreal et al., 2014; Clayton et al., 2020; Donovan & Shepherd, 2013; Regan et al., 2015). It was also questioned whether the time allocated for implementing MTSS was sustainable (Donovan & Shepherd, 2013; Regan et al., 2015; Swanson et al., 2012). Teachers and special education teachers in the Robinson (2016) study highlighted that there was not enough hours in the day to meet the academic needs of all pupils. Werts et al. (2014) further stipulated that a lack of teacher buy-in, inhibited successful RtI implementation. Participants did not initiate the process due to the time required, with feedback also not being provided promptly by colleagues on pupils' progress (Werts et al., 2014).

2.15.3 Collaboration with Colleagues and Parents. Collaboration was identified as both a barrier and benefit to MTSS implementation. Increased collaboration between colleagues and families was deemed necessary by participants, to increase the effectiveness and efficiency of MTSS implementation (Castro-Villarreal et al., 2014; Clayton et al., 2020; Donovan & Shepherd, 2013; Robinson, 2016; Werts et al., 2014). Collaboration and communication with colleagues and parents helped improve instruction and provide additional supports for struggling pupils (Donovan & Shepherd, 2013; Robinson, 2016; Swanson et al., 2012).

Teachers in the Pyle et al. (2011) study identified isolation in the classroom as a barrier, as RtI implementation was their sole responsibility. Collaborative exchanges with colleagues and regular meetings helped overcome lack of RtI implementation in schools (Pyle et al., 2011). Collaborative partnerships were further constrained by participants' large teaching and administrative workload and high numbers of pupils in the classroom (Castro-Villarreal et al., 2014; Donovan & Shepherd, 2013; Regan et al., 2015; Robinson, 2016; Swanson et al., 2012; Werts et al., 2014). Teachers in the Castro-Villarreal et al. (2014) study sometimes felt isolated

in their attempts to move pupils through the RtI process effectively. A disconnect between pupils', their work with the math specialists, and their classroom teachers was also identified in the Donovan and Shepherd (2013) study. Class teachers did not have the time to collaborate with specialists about the pupils receiving additional support (Donovan & Shepherd, 2013).

2.15.4 Benefits for Pupils. Implementation of MTSS equipped schools with a model to identify and refer pupils for assessment, with pupils receiving monitored and intense instruction to address their specific needs (Clayton et al., 2020; Donovan & Shepherd, 2013; Regan et al., 2015; Robinson, 2016; Swanson et al., 2012; Werts et al., 2014). Assessments were also more intentional and consistent (Donovan & Shepherd, 2013; Swanson et al., 2012; Werts et al., 2014). This enabled participants to measure the effectiveness of interventions which ensured that the unique needs of pupils were being met, as differentiated instruction was being provided based on their individual needs (Donovan & Shepherd, 2013; Swanson et al., 2012; Werts et al., 2014). Thus, a MTSS is essentially a prevention system with class teachers and special education teachers ensuring that all steps are taken to ensure effective instruction is readily available for all pupils (Brown-Chidsey & Bickford, 2016; Robinson, 2016).

The MTSS process further enabled schools to look at every aspect of the pupil's ability to learn and considered their learning style, deficits, family, environment and behaviours (Clayton et al., 2020; Robinson, 2016). Class teachers and special education teachers were on the same page with the same goal for the pupil (Clayton et al., 2020; Swanson et al., 2012; Werts et al., 2014). Pupils that were struggling were being provided with high quality instruction and early identification was supported within schools (Swanson et al., 2012; Werts et al., 2014).

2.16 Conclusion

The aim of the current review was to gather empirical data to explore (1) class teachers' and special education teachers' perspectives on response to intervention approaches to SEN within multi-tiered systems; and (2) their perspectives on the barriers and benefits to implementing multi-tiered systems. Thirteen studies fulfilled the inclusion criteria and were subsequently appraised using Gough's (2007) WoE Framework. There is evidence to suggest from this review that the RtI and PBIS MTSS, can be implemented effectively by educators within the primary and secondary school settings. The current review of the literature on MTSS, highlighted that there is a gap in the research focusing explicitly on the utility of the Continuum of Support framework in the identification and monitoring of pupils educational needs.

With regards to the first review question, looking at participants' perspectives on response to intervention approaches to SEN within multi-tiered systems, 'Interventions', 'Assessments', 'Collaboration' and 'Altering Practices' emerged as key themes in the studies reviewed (Dunn & Mabry, 2011; Gates et al., 2013; Pavri, 2010; Stuart et al., 2011; Wilcox et al., 2013). The second review question, looking at participants perspectives on the barriers and benefits to implementing multi-tiered systems, identified 'Lack of Adequate Training', 'Lack of Time and Resources', 'Collaboration with Colleagues and Parents', and 'Benefits for Pupils' as key themes in the studies reviewed (Castro-Villarreal et al., 2014; Clayton et al., 2020; Donovan & Shepherd, 2013; Pyle et al., 2011; Regan et al., 2015; Robinson, 2016; Swanson et al., 2012; Werts et al., 2014). Limitations regarding the methods adopted and the transferability of findings to an Irish context are evident in Table 2.8. Implications for research, policy and practice are also discussed.

Table 2.8

Limitations of the Systematic Review

	Small Number of Relevant Studies Identified for both Review Questions
1.	The small number of relevant studies identified for both review questions points to the originality of this field in practice and the need for increased empirical research in the area. Nevertheless, the limited number of available articles for inclusion is also acknowledged as an overall limitation of this systematic review. The research does not specify that there is a minimum number of articles required, but the synthesis of findings across both review questions may have reflected the parameters of this process (Gough et al., 2017; Liberati et al., 2009).
	Narrow Focus on One Country and on One MTSS
2.	All thirteen studies identified for review were based in the United States with no studies identified with an Irish cohort of teachers and/or special education teachers. As such, there may have been limited variability in participants' perceptions of the differing approaches to MTSS implementation. While the opinions of the included study participants are still valid, future research should examine sources of variability across regions. The systematic review is limited by both the narrow focus on one country and on one specific MTSS, the auspicious RtI model of service delivery. The lack of Irish class teachers' and special education teachers' perspectives on MTSS emerged as a gap in the studies reviewed, and will be addressed by the current study.
	Use of Surveys and/or Interviews
3.	The use of surveys and/or interviews in identified studies relied on participants' self-reporting of their own knowledge, attitudes and/or behaviours (Mertens, 2015). This may not accurately reflect actual practices and experiences related to MTSS implementation in schools. Mertens (2015) stipulated that the validity of self-reported data is dependent upon the honesty and openness of individual participants. This should be taken into account in the interpretation of review findings.

Social Desirability and Selection Bias
4. Self-selected samples were further utilised in the Castro-Villarreal et al. (2014), Gates et al. (2013), Pavri (2010), Regan et al. (2015), Robinson (2016), Stuart et al. (2011), Swanson et al. (2012) and Werts et al. (2014) studies. As such, social desirability and selection bias must also be considered when interpreting the review findings. The participants who self-selected to take part in these studies, may have had stronger views, or responded in ways that represented them in a more desirable light (Mertens, 2015).
Included Studies in Contempt of the APA's (2020) Recommendations
5. Included studies were also in contempt of the APA's (2020) recommendations that research papers should be sufficiently detailed in order to permit others to replicate the study. Eleven studies neglected to establish participant inclusion and exclusion criteria, thus negatively impacting their feasibility. Included studies did not address sample size calculation. Thus, a reliable indication was not provided of the direction in which future research can go. The quality of identified studies for review is questionable with included studies lacking methodological rigour, generalisability and particularizability.
Value of Adopting Mixed-Methods Design
6. While four studies with a mixed-methods design were also reviewed, the researchers were not explicit about the add-on value of their mixed-methods design. Thus, the perceived value of adopting this methodology is questionable. It is an important question that mixed-methods researchers must ask themselves, as it is critical in judging the value of a study (McKim, 2017).

2.16.1 Implications for Research. This review has systematically aimed to collate evidence on class teachers and special education teachers' perspectives on the implementation and delivery of MTSS in schools. The studies reviewed focused on the implementation of RtI (N = 12) and PBIS (N = 1) at elementary, middle school and high school levels, in the United States. Study samples included school principals, school psychologists, school and district administrators, literacy and maths specialists, and also, curriculum specialists. Only five studies included a sample of both class teachers and special education teachers (Donovan & Shepherd, 2013; Dunn & Mabry, 2011; Regan et al., 2015; Robinson, 2016; Stuart et al., 2011). This is surprising given that they are both a good representation of the whole school community (Rose & Shevlin, 2020). Their perceptions are an essential component of any school reform effort, with research on the change process concluding that implementation of such reform, commences at the teacher level (Hall & Hord, 2006; Greenfield et al., 2010). Additionally, they are familiar with a wide range of teaching approaches, methodologies and resources, used to support pupils with particular learning styles and to meet a variety of needs (Rose & Shevlin, 2020). Langher et al. (2017) posit that they benefit from sharing decisions about the teaching of pupils with SEN. It is recommended that future research focuses on a broader scope of MTSS and on gaining a more in-depth commentary from individuals directly concerned with the

identification of pupils' needs. Few empirical studies have included their perspectives to reflect the daily negotiations within the classroom, and a qualitative examination would aid in the pursuit of capturing this insight and opposing viewpoints, if any (Castro-Villarreal et al., 2014; Dunn & Mabry, 2011; Pyle et al., 2011; Wilcox et al., 2013).

While no Irish study was identified for review, it is pertinent to discuss the importance of the Continuum of Support framework, the multi-tiered model of service delivery provided by NEPS to schools. While not appearing in the initial searches, or subsequently meeting the review inclusion criteria, the study by Shevlin et al. (2013b) was brought informally to the researcher's attention during the literature review process. It investigated participants perceptions of the assessment process and the issues confronting schools and service providers within primary education (Shevlin et al., 2013b). A series of twelve focus groups were conducted to examine the role of assessment within the Irish education system for pupils with SEN (Shevlin et al., 2013b). A noteworthy finding is that participants indicated that schools were unaware of, or not uniformly following the Continuum of Support framework (Shevlin et al., 2013b). While the perspectives of teachers' were obtained, it was decided to only report on the findings from eight focus groups comprising primary principals, DES professionals and DES support professionals (Shevlin et al., 2013b). This is surprising given that class teachers collaborate with special education teachers to support pupils with SEN across this MTSS. There is an inherent need for research to be conducted to look at how schools are utilising the Continuum of Support framework; to obtain the perspectives of those directly concerned with its implementation; and to explore the barriers and benefits that they face with its implementation. Thus, the current study aims to extend the research base for MTSS in the Irish context and it is a unique piece of research in Ireland.

It is now timely to explore this research gap with the introduction of the New Model for Allocating Teaching Resources to Mainstream Schools (NCSE, 2014; DES, 2017b). There has been a move away from a diagnostic medical approach to a more equitable needs-based system where opportunities for early intervention are supported and the unnecessary labelling of pupils is removed (NCSE, 2014; DES, 2017a). This new ecological approach fosters a more inclusive educational system and is now aligned with the NEPS model of service delivery (NCSE, 2014; DES, 2017a).

2.16.2 Implications for Policy and Practice. Evidence from the current review findings indicates that there is a danger of a 'one size fits all plan' being adopted by class

teachers and special education teachers within MTSS, to support struggling pupils (Dunn & Mabry, 2011; Gates et al., 2013; Stuart et al., 2011; Wilcox et al., 2013). A gap exists between special education policy intentions and implementation of inclusive practices, thus promoting feelings of inadequacy and confusion amongst educators (Cavendish et al., 2020; Jordan et al., 2010). When this gap exists, less effective decision making and interventions are implemented for pupils with SEN (Cavendish et al., 2020). Whilst educators favour inclusion in principle, inclusive practice is largely aspirational with the resources currently available to schools (Castro-Villarreal et al., 2014; Cavendish et al., 2020; Jordan et al., 2010; Robinson, 2016; Rose et al., 2017).

Cavendish et al. (2020) conceptualized it as a "hierarchical chain" (p. 19). Specifically, EPs are the recipients of policy information with limited input on implementation practices (Cavendish et al., 2020). Pressure is then put on class teachers and special education teachers to implement policies and practices that they do not fully understand or accept (Cavendish et al., 2020). There is an inherent need to slow down and provide further support, prior to moving forward with multi-tiered system practices (Castro-Villarreal et al., 2014). Additionally, there should be input from EPs to promote consistency in how services and support are provided to pupils with SEN (Cavendish et al., 2020). Without their support, the gap between policy and practice will still remain (Cavendish et al., 2020).

The current review findings further accentuated that while educators valued collaboration with colleagues, parents and practitioners, its implementation was largely aspirational (Castro-Villarreal et al., 2014; Robinson, 2016; Werts et al., 2014). Thus, to ensure positive outcomes for pupils with SEN, the implementation of inclusive practices require a collective engagement (Donovan & Shepherd, 2013; Mulholland & O'Connor, 2016; Sharma et al., 2012). While no Irish study was identified for review, policy guidance in Ireland similarly reinforces collaborative teaching practices to help enhance the educational opportunities for pupils with SEN (DES, 2017b, 2017c; Mulholland & O'Connor, 2016). Thus, there is a need to explore whether this gap exists between policy and practice within an Irish educational context.

2.16.3 Research Questions. The research questions to emerge in relation to identified gaps in the literature include:

1. How is the Continuum of Support framework utilised in an Irish Educational context to allow class teachers and special education teachers to become more active thinkers in the decision-making process?
2. What are class teachers and special education teachers' perspectives on the supporting factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages?
3. What are class teachers and special education teachers' perspectives on the constraining factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages?

2.16.4 Chapter Conclusion. This chapter consisted of two phases and has set the context and rationale for the current study. Phase one essentially encompassed the global shift that has occurred in special education from a diagnostic medical approach to an ecological approach. Phase two presented the systematic review containing two specific review questions. Thirteen studies were critiqued conceptually and methodologically with findings synthesised across studies. A report on the research carried out is now presented in the Empirical Paper (Chapter 3).

Chapter 3 Empirical Paper

3.1 Introduction

3.1.1 Current Irish SEN Provision. Casserly and Padden (2018) posit that SEN provision has greatly progressed over the last three decades in Ireland. The education of pupils with SEN is ordinarily provided in mainstream primary and post-primary schools, special classes in mainstream schools, and in special schools (Kerins et al., 2018). The number of pupils identified with SEN has dramatically increased, now accounting for a quarter of the school population (McConkey et al., 2016; McCoy et al., 2020). As such, there is a greater emphasis on how best to provide support to pupils with SEN in mainstream schools (Banks et al., 2015; Rose & Shevlin, 2020).

The current system of provision reflects a policy of inclusion (Kerins et al., 2018). The EPSEN Act (Government of Ireland, 2004) epitomizes a significant milestone in the development of a comprehensible policy and legislative framework to support the education of pupils with SEN (Casserly & Padden, 2018; Kerins et al., 2018). The Disability Act 2005 also puts in place a strong framework to ensure that significant improvements are made to the lives of individuals with SEN (Government of Ireland, 2005). There has been a shift in special education policy towards a more inclusive view of education, delivered to pupils with SEN within a mainstream setting (Griffin & Shevlin, 2011; McCoy et al., 2014; Smyth et al., 2014).

Teachers in Irish primary schools even so feel ill-equipped to cope with the challenges associated with this trend towards inclusive practice (Curtin & Egan, 2021; Rose et al., 2015). The literature highlighted that primary school teachers were apprehensive, lacking in confidence, and frustrated by the lack of resources and insufficient psychological support (Anglim et al., 2018; Shevlin et al., 2013a). The practice of teacher collaboration and consultation is encouraged in mainstream primary schools, in addition to CPD and the wider use of reflective practice, to ensure that pupils with SEN are effectively supported (Anglim et al., 2018; Mulholland & O'Connor, 2016; Ní Bhroin & King, 2020). The use of collaborative teaching is further advocated in *Circular 0013/2017* and *Circular 0014/2017* (DES, 2017b, 2017c), which outline the changes and recommendations to the allocation and deployment of additional teaching support in Irish mainstream schools (Carty & Farrell, 2018). Class teachers play a central role as agents of change in the implementation of inclusive education policy and guidelines, and their perspectives concerning inclusion must be kept in mind (Hall & Hord, 2006; O'Donnell, 2009).

3.1.2 Theoretical Model Utilised to Inform Understanding of SEN. In an international review of the procedures implemented to diagnose a disability and assess SEN, Desforges and Lindsay (2010) identified three dominant models of assessment and intervention: the social model, the medical model and the biopsychosocial model. The latter was recommended by Desforges and Lindsay (2010) for informing SEN policy and for the identification and assessment of pupils with SEN. The biopsychosocial model evolved from Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1989, 1994), and accounts for both within-person and environmental factors, that provide support or cause stress for the individual (Curtin et al., 2014; Desforges & Lindsay, 2010). The role of SEN provision is to reinforce the supporting factors while reducing the repercussions of stress factors, and other barriers to pupils learning (Desforges & Lindsay, 2010). The biopsychosocial model emphasises the pupil's participation, functioning, and their ability to interact with their environment (Curtin et al., 2014). There has been a shift from a deficit model of individual disability to an emphasis on inclusive education and interdisciplinary working (Curtin et al., 2014; Nind, 2014). Additionally, rather than pupils being identified with SEN through a standard biomedical framework, they are now identified by teachers as requiring additional support (Curtin et al., 2014). Thus, the frame of reference has moved from the clinic to the school (Curtin et al., 2014).

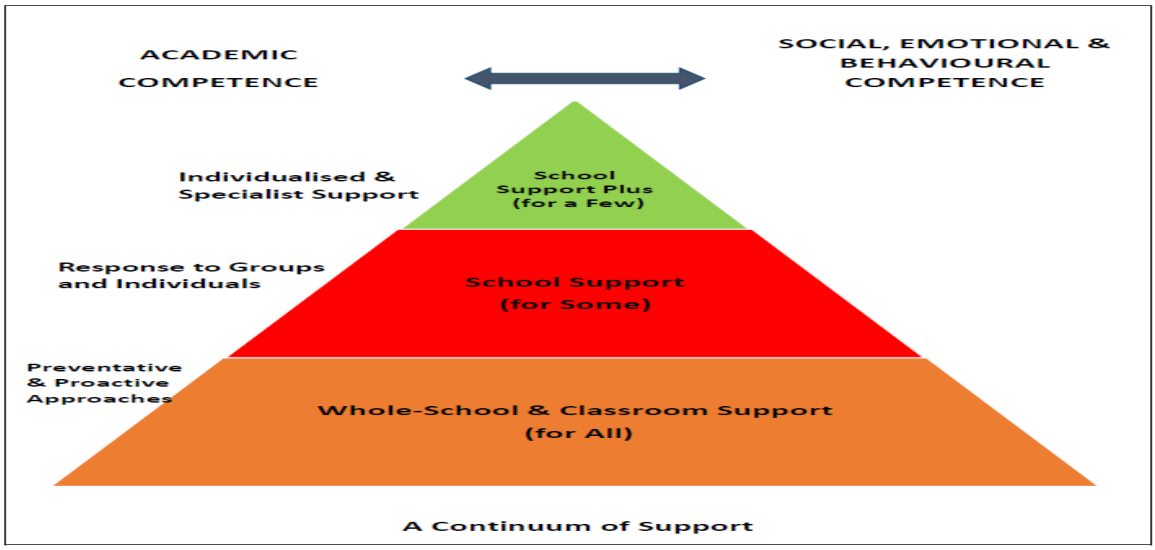
3.1.3 The Continuum of Support Framework. Within the Irish context, the NEPS adhere to the principles of the biopsychosocial model (NEPS, 2007, 2010a). The Continuum of Support framework is implemented, that "encompasses a graduated problem solving model of assessment and intervention in schools" (see Figure 3.1) (NEPS, 2007, p. 2). Endorsed by the DES, this three-stage framework "recognises that SENs occur along a continuum from mild to severe and from transient to long term" (Shevlin et al., 2013b, p. 127). By implementing this problem-solving approach to casework, the NEPS critically explore the interplay of biological, psychological and social factors (NEPS, 2007, 2010a). The Continuum of Support framework is further closely aligned with the RtI model of service delivery, and is an effective process for building capacity in the school system (NEPS, 2007, 2010a; Tiernan & Casserly, 2018). Nonetheless, the research has suggested that schools are either unaware of, or have different interpretations of this three-stage framework, thus negatively impacting on practice (Shevlin et al., 2013b; Tiernan & Casserly, 2018).

The Continuum of Support framework is comprised of three distinct school-based processes: Classroom Support, School Support and School Support Plus (NEPS, 2007; Rose et

al., 2015). 'Classroom Support' is initiated by the class teacher and/or parents, and is a process of prevention and early identification (Griffin & Shevlin, 2011). Work at stage two, 'School Support', is initiated by the special education teacher, alongside the class teacher, and focuses on identifying pupils in need of early, or more intensive group programmes (Griffin & Shevlin, 2011; NEPS, 2007). Work at stage three, 'School Support Plus', is characterised by individualised and specialist support (Griffin & Shevlin, 2011). Information gathered from the first two stages, initiates the problem-solving process at this level (Griffin & Shevlin, 2011; NEPS, 2007). This three-stage framework essentially advocates the development of special education support teams in primary schools, whereby special education teachers assist class teachers in the planning and implementation of special education provision (Tiernan & Casserly, 2018). There is an inherent need for schools to use the Continuum of Support framework, to assist in identifying and responding to pupils' needs (O'Brien, 2018).

Figure 3.1

NEPS Staged Approach to Assessment, Identification, and Programme Planning (DES, 2017a)



3.2 The Policy Context

The previous system of resource allocation to schools, the General Allocation Model (GAM) and English as Additional Language Support (EAL) scheme, was unfair and inequitable (DES, 2016, 2017b, 2017c). Kerins (2014) advanced on this by stating that there were reductions in the provision of resources for pupils with mild general learning disabilities (MGLD). Thus, this system of resource allocation was not well received (Kerins, 2014). Assessment for identification of disabilities or SENs was further confined to resource

allocation, with little emphasis on pupil outcomes (Shevlin et al., 2013b). Tiernan and Casserly (2018) posit that there have been extensive changes to the organisation of educational teaching support provision for pupils with SEN in Ireland.

In 2014, a working group was established by the NCSE to develop a proposal for the introduction of a New Resource Allocation Model (NCSE, 2014; DES, 2016). It was anticipated that the New Model for the Allocation of Special Education Teaching Resources for Mainstream Schools, would generate a more equitable, transparent and fairer resource allocation system (NCSE, 2014). Pupils would have immediate access to the additional educational resources that they required, and the need for a professional assessment to access such resources, would be eliminated (NCSE, 2014). It was further expected that schools would be more inclusive (DES, 2016).

Following successful piloting by the DES during the 2015/2016 school year, in forty-seven schools, at primary and post-primary levels, a revised allocation model was introduced (NCSE, 2014; DES, 2016). Key findings from the pilot study highlighted that primary schools welcomed the autonomy and flexibility it afforded them, with the additional resources being utilised to effectively meet the needs of pupils with SEN (DES, 2016). The New Model for the Allocation of Special Education Teaching Resources for Mainstream Schools, stipulates that resources are to be allocated to the pupils with the greatest level of need, and is operationalised using the Continuum of Support framework (DES, 2017a). With its introduction, there has been a move away from a diagnostic medical approach to a more equitable needs-based system, where opportunities for early intervention are supported and the unnecessary labelling of pupils is removed (NCSE, 2014; DES, 2017a). Essentially, there have been advancements towards a capacity-building model in Ireland, with the introduction of this New Resource Allocation System (DES, 2017a).

3.3 Research Focus

A global shift has occurred from a medicalised view of special education, which was aligned with a traditional assessment role of the EP and focused on within-child factors, to a biopsychosocial view, that also considers social and environmental factors (Curtin et al., 2014; Davis & Deponio, 2014; Kennedy et al., 2008). There are now ongoing efforts throughout Europe, to increase the number of pupils with SEN educated in mainstream schools (Smeets & Roeleveld, 2016) thus, reducing referrals to special schools (Smeets & Roeleveld, 2016). There has been a reconceptualised representation of the teacher as an assessor (Looney et al., 2017). The use of Multi-Tiered Systems of Support (MTSS) is encouraged as they provide a

framework for the screening and early identification of pupils with academic and behavioural problems (Jimerson et al., 2015). Eagle et al. (2015) proclaim that current educational reform mandates the implementation of MTSS.

Following a search of relevant databases, studies aimed at exploring class teachers' and special education teachers' perspectives on the utility of the Continuum of Support framework, do not exist at present. This highlights a gap in the research subsequently providing a rationale for the current study. Class teachers, in consultation with special education teachers, ensure that the priority learning needs of pupils' with SEN are addressed, and that targets identified within their Continuum of Support plans are achieved (DES, 2017a). Whilst there is research in the area of inclusive practice in Ireland, indirectly referring to the Continuum of Support framework, no data exists looking specifically at the Continuum of Support framework (Curtin & Egan, 2021; Shevlin et al., 2013b; Tiernan & Casserly, 2018). The available research on the RtI and PBIS MTSS, would indicate that there are a number of barriers and benefits to implementing MTSS.

Key themes that emerged related to potential barriers included a lack of adequate training; lack of time and resources with class teachers and special education teachers overwhelmed by the scope and pace of work involved; and a lack of time to collaborate with specialists and colleagues (Castro-Villarreal et al., 2014; Clayton et al., 2020; Donovan & Shepherd, 2013; Pyle et al., 2011; Regan et al., 2015; Robinson, 2016; Swanson et al., 2012; Werts et al., 2014). An ingrained division between teachers and special education teachers was evident, with the collaborative problem-solving processes required by MTSS posing significant challenges for the educators (Dunn & Mabry, 2011; Gates et al., 2013; Stuart et al., 2011; Wilcox et al., 2013). Only one study (Pavri, 2010), perceived ongoing communication with families as essential within MTSS. Class teachers and special education teachers viewed implementation of MTSS as their sole responsibility (Pyle et al., 2011), often feeling isolated in their attempts at moving pupils effectively through the MTSS process (Castro-Villarreal et al., 2014).

Potential benefits that emerged were that MTSS assisted educators in identifying struggling pupils (Dunn & Mabry, 2011; Stuart et al., 2011). Early intervention was supported and high quality instruction was provided to pupils with SEN (Swanson et al., 2012; Werts et al., 2014). As no data exists within the Irish context, there is a need to explore what challenges implementation of the Continuum of Support framework may pose. The current study will explore the perspectives of class teachers and special education teachers working in mainstream primary schools. In line with the '*Better Outcomes, Brighter Futures*' national

policy framework, there is a need for research in Ireland to focus on early intervention initiatives to address early indicators of potential problems, subsequently ensuring the provision of high standard early years services and education (DCYA, 2014).

3.4 Research Questions

The aim of this study is to address the following research questions:

1. How is the Continuum of Support framework utilised in an Irish Educational context to allow class teachers and special education teachers to become more active thinkers in the decision-making process?
2. What are class teachers and special education teachers' perspectives on the supporting factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages?
3. What are class teachers and special education teachers' perspectives on the constraining factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages?

3.5 Methodology

3.5.1 Study Design. This study explored class teachers' and special education teachers' perspectives on the Continuum of Support framework in providing support to pupils with SEN. The employment of a phenomenological methodology in this research, facilitated the process of gaining an insight into the meaningfulness of professional practice and everyday life of the participants (Adams & van Manen, 2017; Hopkins et al., 2016). Exploring the first-hand experiences and perspectives of the participants, allowed for a deep understanding and appreciation of the educational issues (Creely, 2016; Hopkins et al., 2016). Phenomenology, a form of qualitative research, was considered appropriate for this study, as it focused on the participants lived experiences within the world (Creely, 2016). It sought their perceptions and meanings of a phenomenon or experience, with the intent of understanding and describing them from their viewpoint (Mertens, 2015; Neubauer et al., 2019; Wertz, 2005).

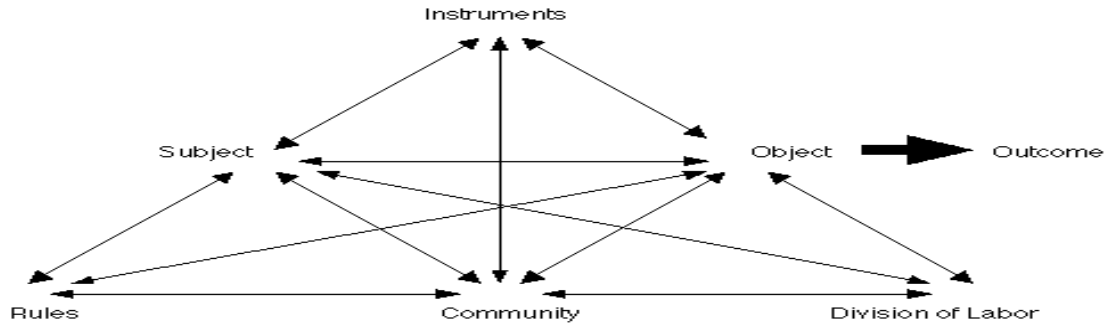
3.5.2 Research Paradigm. This research will be positioned within a constructivist paradigm. A constructivist approach to research aims to understand the world of human experience (Adom et al., 2016; Mackenzie & Knipe, 2006). The core assumptions of constructivism are that multiple, socially constructed realities are the products of human intellects (Guba & Lincoln, 1994). Knowledge is created in the interaction between the

investigator and respondents (Mertens, 2005, 2015). In terms of the current research, class teachers and special education teachers were interviewed on their perspectives of the utility of the Continuum of Support framework. No critical interpretation of their perspectives was undertaken to reach an objective truth (Chilisa & Kawulich, 2012). This contrasts with a positivist/ post positivist paradigm that proclaims that one reality exists (Chilisa & Kawulich, 2012).

3.5.3 Theoretical Framework: Activity Theory. With regards to the current research, Activity Theory (AT) was used as a conceptual framework to map the practices of class teachers and special education teachers in the Continuum of Support framework. A key principle of AT is that activity systems are typically multi-voiced, with multiple viewpoints from the community (Engeström, 2001; Gaskell & Leadbetter, 2009; Leadbetter et al., 2007). AT provided the researcher with a theoretical tool to understand conflicts, contradictions, and inconsistencies, both between and within components of the Continuum of Support Activity System model (Karasavvidis, 2009; Robinson & Cottrell, 2005). Yrjö Engeström (1987) classified AT as falling into three generations. Second-Generation Activity Theory[1] model was utilised in this research (Engeström, 1987). An overview of this theory can be seen in Figure 3.2. Descriptions of each point of the triangle are further provided in Section 3.6.

Figure 3.2

Second-Generation Activity Theory Model (Engeström, 1987)

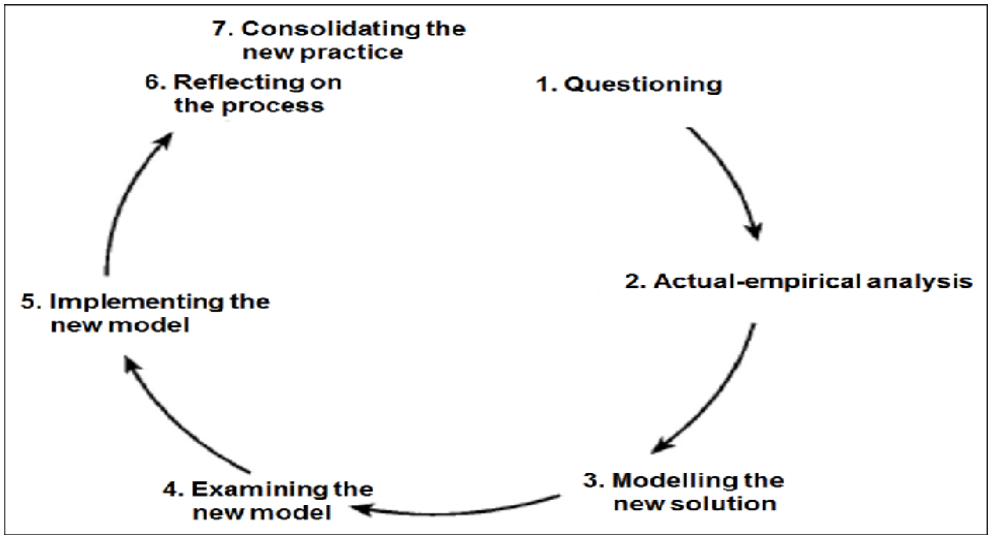


[1] With Second-Generation Activity Theory, the unit of analysis is the whole work activity (see Figure 3.2) (Hashim & Jones, 2007). The activity is comprised of analytical components (Hashim & Jones, 2007). *Subject* represents an individual or group taking action and they are the chosen perspective of analysis (Engeström & Sannino, 2010). *Object* is what is being worked on while *Tools/Instruments* (what is being used), represents the mediation that occurs between the subject and object to achieve an *Outcome* (Engeström & Sannino, 2010). The wider historical, cultural, social and contextual factors are equally important with the Activity System extended to include *Rules* (what supports and constrains the work); *Community* (who else is involved); and *Division of Labour* highlights how the work is shared (Engeström & Sannino, 2010; Gaskell & Leadbetter, 2009; Hashim & Jones, 2007).

Another key principle pertaining to AT is the central role of contradictions both within and between activity systems (Engeström, 1999, 2001). Contradictions are sources of tension and disturbance that highlight potential areas of change, growth and development, within the system (Engeström, 2001). Identifying contradictions can lead to a process known as the 'Cycle of Expansive Learning' (Engeström, 1999, 2001) (see Figure 3.3). Expansive learning concerns the activity system, such as an individual, professional group or organisation, resolving contradictions (Engeström, 1999). By moving through the seven learning actions (see Figure 3.3), new ways of working are constructed and implemented (Engeström, 1999). When research moves through this 'Cycle of Expansive Learning', Engeström (2005) defined it as 'Developmental Work Research', a type of action research grounded in AT. The current research will move through the first two steps of the expansive learning cycle by 'questioning' class teachers and special education teachers current practice and 'analysing' contradictions within the system (Engeström, 1999). Potential avenues will further be explored to continue to progress through this cycle. The researcher did not have the scope to move through each step of the expansive learning cycle within their research timeline.

Figure 3.3

Cycle of Expansive Learning (Engeström, 1999)



3.5.4 Participants

3.5.4.1 Sampling Strategy. This study initially sought to explore the perspectives of class teachers and special education teachers working fulltime in mainstream primary schools in the West of Ireland. The recruitment process was challenging due to a low up-take rate following school closures, resulting from the coronavirus pandemic. Thus, the sampling

strategy changed from non-probabilistic purposive to non-probabilistic convenience sampling. This resulted in a national sample obtained from schools in three different provinces; Connacht, Leinster and Munster. The researcher used professional and personal contacts to support the recruitment process, which resulted in all data being feasibly collected within the research time frame. While convenience sampling is efficient, inexpensive, and applicable to qualitative research, it is not without its limitations (Etikan et al., 2016; Valerio et al., 2016). The non-random sample of participants impedes the researcher's ability to draw inferences about a population (Etikan et al., 2016; Valerio et al., 2016).

3.5.4.2 Sample Size. An adequate sample size in qualitative research is one that sufficiently answers the research questions and demonstrates that data saturation has been reached (Bowen, 2008; O'Reilly & Parker, 2012). Data saturation relates to both the depth and breadth of information obtained (Bowen, 2008; Fusch & Ness, 2015; O'Reilly & Parker, 2012). Previous literature has implied that the number of participants required to reach thematic and data saturation can vary depending on the study design and methodology (Fusch & Ness, 2015; Malterud et al., 2015; Mason, 2010). In phenomenology, Creswell (2013) and Morse (2000) recommend studying six to 10 participants. The research further suggests that saturation with interviews generally occurs between 11 to 12 participants (Guest et al., 2006; Latham, 2013). Thus, the researcher aimed to include six to 12 participants as a means of reaching data saturation and to ensure that themes relevant to the research questions were faithfully represented. Eight primary school teachers and three special education teachers took part in this study (N = 11).

3.5.4.3 Demographical Information. Demographic information is presented in Table 3.1. Out of the 11 participants recruited, five were teaching in the Connacht region in Ireland, while three were in both the Munster and Leinster regions. Eight mainstream primary schools in total participated in this study. The number of pupils with identified SEN in the schools ranged from 16 (School 3) to 30 (School 6). Participants ranged in experience from three to 11 years, and taught pupils from Junior Infants to Sixth Class. Six participants were in the 20-30 age range, while the remaining five were in the 31-40 age range. Out of the 11 participants, 36% held a master's degree (Level 9). All eleven participants noted that they did not receive any training in implementing the Continuum of Support framework. Five participants reported that they had voluntarily undertaken CPD in relation to SEN. The most common CPD cited by participants included the 'Teaching Students with Dyslexia and Literacy Difficulties' (N = 3), 'Assistive Technology for Students with Dyslexia' (N = 3), and 'An Introduction to Teaching Students with Down Syndrome' (N = 2) primary courses.

Table 3.1

Participant Demographics

Participant Code	Gender	Age Range	Nationality	Highest Level of Education Achieved	Current Role	Number of Years of Experience	Current Class	Province
P1 (School 1)	Female	20-30	Irish	Bachelor of Education (Level 8)	Mainstream Class Teacher	3 years	Senior Infants	Connacht
P2 [a] (School 2)	Female	20-30	Irish	Master of Education - Primary Teaching (Level 9)	Mainstream Class Teacher	3 years	Fourth Class	Leinster
P3 [a] (School 3)	Female	20-30	Irish	Master of Education - Primary Teaching (Level 9)	Mainstream Class Teacher	3 years	First Class	Connacht
P4 [a] (School 3)	Male	31-40	Irish	Master of Education - Primary Teaching (Level 9)	Mainstream Class Teacher	6 years	Second Class	Connacht
P5 (School 4)	Female	20-30	Irish	B Ed in Education and Psychology (Level 8)	Mainstream Class Teacher	4 years	Fifth Class	Munster
P6 [a] (School 5)	Female	20-30	Irish	B Ed in Education and Psychology (Level 8)	Mainstream Class Teacher	4 years	Fifth Class	Munster
P7 (School 6)	Female	20-30	Irish	B Ed in Education and Psychology (Level 8)	Mainstream Class Teacher	3 years	Junior Infants	Leinster
P8 (School 7)	Female	31-40	Irish	Higher Diploma in Primary Education (Level 9)	Mainstream Class Teacher	7 years	Fifth Class	Connacht
P9 (School 8)	Male	31-40	Irish	Bachelor of Education (Level 8)	Special Education Teacher	9 years	First - Fourth Class	Connacht
P10 [a] (School 2)	Male	31-40	Irish	MSc in Psychological Science (Level 9)	Special Education Teacher	11 years	Third - Sixth Class	Leinster
P11 [a] (School 5)	Female	31-40	Irish	Bachelor of Education (Level 8)	Special Education Teacher	10 years	Fourth - Sixth Class	Munster

[a] Reflects the schools with two participants in each.

3.5.5 Procedure. Data collection was undertaken over a period of five months, from May to September 2020. Semi-structured interviews were conducted virtually via Zoom, with educational staff in mainstream primary schools across three provinces in Ireland; Connacht, Leinster and Munster. Mainstream primary schools that were known to the primary researcher and their professional colleagues, were identified as potential participating schools. A recruitment e-mail which briefly outlined the project, was sent to the school e-mail address for the attention of the school principal (see Appendix O). If the school was interested and wanted to participate, a virtual meeting was arranged to discuss the research further with the school principal, if required. A participant information letter was sent via e-mail to the school to distribute to potential participants (see Appendix P). A key link-in person was appointed, such as the school principal or deputy principal, and all future correspondence was directed towards this person. The key link-in person provided the individuals who were eligible to take part, with the relevant documentation and information. If interested, and the school staff satisfied the eligibility criterion, they were given a consent sheet to review (see Appendix Q). The eligibility criterion was qualified class teachers' and special education teachers' working fulltime in mainstream primary schools. A date and time was organised for interview. Participants filled out the consent forms virtually with the researcher at the time of their semi-structured interview. Conducting this qualitative research virtually ensured that the researcher and participants safety was prioritised (Roberts et al., 2021). Rapport was impacted at times due to poor connectivity, but this subsequently enhanced the bond between the researcher and participants as they worked together to resolve the technical issues (Roberts et al., 2021).

3.5.6 Data Collection. Semi-structured, in-depth interviews were utilised to gather qualitative data from participants. This method allowed the researcher to gather participants responses to open-ended questions, and to explore their thoughts, feelings and beliefs about the utility of the Continuum of Support framework (DeJonckheere & Vaughn, 2019). Disadvantages linked to semi-structured interviews are that there may be more socially desirable or conventional answers, and unwanted interviewer affect is increased (McIntosh & Morse, 2015). The presence of the researcher in face-to-face interviews is known to impact participants and their responses (McIntosh & Morse, 2015). The 'talking heads perspective' must also be accounted for in digital interviews, as digital interviewing may limit access to the participants' body language (Krouwel et al., 2019). Digital interviews impact the researcher's ability to reassure and comfort participants when in distress, as there is an inability to pass a tissue for instance (Krouwel et al., 2019). The interview schedule was designed to reflect the

contents of the 'Second-Generation Activity Theory' model and the 'Self-Reflective Questionnaire', a resource provided to schools to inform implementation of the new allocation model (DES, 2017a; Engeström, 1987). Participants were informed of the time frame of the semi-structured interviews with them typically covering the duration of thirty minutes to more than an hour (Jamshed, 2014). They were also asked to complete a demographic questionnaire (see Appendix R). See Appendix S for the semi-structured interview questions. All data were transcribed verbatim and the interviews were later played and compared with the transcripts, to ensure the highest level of accuracy was achieved by the researcher during the transcription process (see Appendix T).

3.5.7 Ethical Considerations. Ethical approval was sought and obtained from the Mary Immaculate College Research Ethics Committee (MIREC) in April 2020. The researcher was sensitive to conducting the research in an ethically sound manner in line with the Psychological Society of Ireland (PSI) Code of Professional Ethics (2019). This related to the recruitment process, data collection, and ensuring participant confidentiality and anonymity. The participating schools and recruited participants were made fully aware of the aims and goals of the research project and were provided with an information sheet. The participants signed a consent form with information provided on how their participation was voluntary, and that they could withdraw at any stage, without reason and without consequence. All research activities were conducted on a password protected computer, stored in a secure and locked office. All research data was kept on an encrypted memory device, used only for research purposes. Each participant was given a unique identification number to ensure anonymity and no identifying information was used in reference to the participating schools. Participants were informed of how the research outcomes would be used.

3.5.8 Pilot Study. To ensure reliability and validity, the preliminary draft of the semi-structured interview questions were internally reviewed by the primary researcher and their supervisors. Results from this highlighted that there was no question that documented if participants had received training on the Continuum of Support framework or undertaken CPD in relation to SEN. A pilot study, or feasibility study, was conducted incorporating the initial round of feedback, and using a sample cohort from the population employed in the present study (Castro-Villarreal et al., 2014; Kim, 2010; Thabane et al., 2010). Johanson and Brooks (2010) stipulated that the literature is conflicting on the sample size required for pilot studies. The semi-structured interview schedule was piloted with three primary school teachers prior to

data collection commencing. Data gathered from this phase was not included in the study. Feedback from the pilot study was taken into account and the semi-structured interview questions were again internally reviewed, prior to data collection commencing. Changes made following this included re-ordering questions to enhance their flow and rephrasing questions that were proving difficult to answer (Bryman, 2012). Kim (2010) conceptualised it as a small-scale methodological test utilised to prepare for the main study.

3.5.9 Data Analysis. Thematic analysis was used to analyse the interview data. It provides a theoretically flexible and accessible approach for analysing qualitative data whilst also producing a rigorous, high quality analysis (Braun & Clarke, 2006; Clarke & Braun, 2017). Nonetheless, this flexibility is acknowledged as a limitation of thematic analysis with Nowell et al. (2017) stipulating that it can lead to inconsistency when developing themes from the data. This was not applicable to the current data set as the themes that emerged from the data were pinned to a robust theoretical framework, Second-Generation Activity Theory, thus promoting consistency and cohesion (Nowell et al., 2017).

A hybrid approach of inductive and deductive thematic analysis was employed due to the exploratory nature of the research (Fereday & Muir-Cochrane, 2006; Xu & Zammit, 2020). An inductive or 'bottom-up' approach is driven by what is in the data (Clarke & Braun, 2017; Xu & Zammit, 2020). By contrast, a deductive or 'top-down' approach is theory-driven (Braun & Clarke, 2006). This stage incorporated the psychological theory guiding the research, Second-Generation Activity Theory (Engeström, 1987). Combining both approaches allowed for a more complete analysis and ensured that no important themes were overlooked (Roberts et al., 2019). Data were analysed in coherence with the six-step recursive process outlined by Braun and Clarke (2006) for thematic analysis. This included familiarisation with the data, initial code generation, the identification of themes, reviewing themes, defining and naming themes and reporting (Braun & Clarke, 2006) (see Appendices V and W).

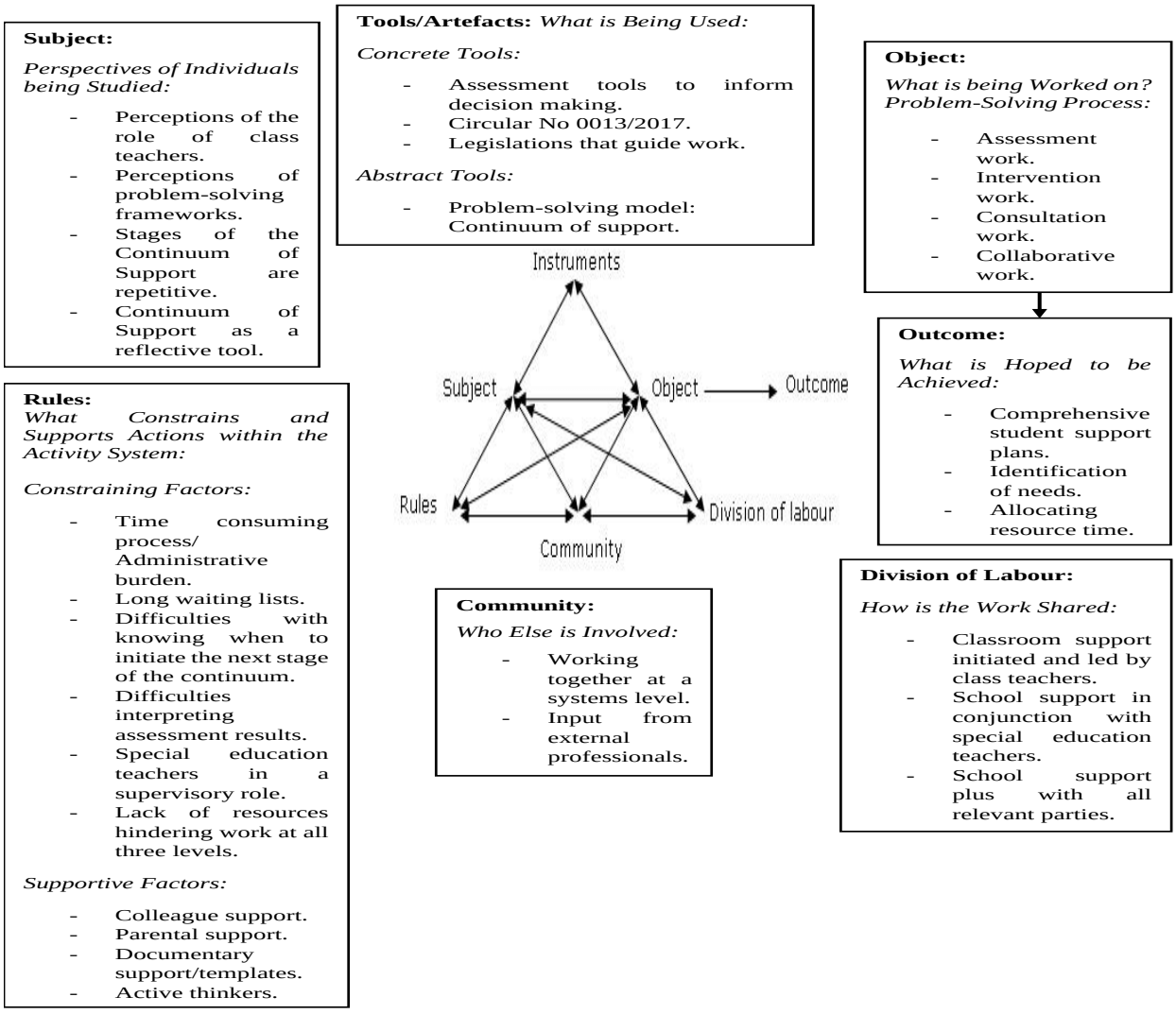
In line with previous literature, an independent coder was employed to ensure internal reliability within the analysis process (Regan et al., 2015; Swanson et al., 2012). This enhanced the trustworthiness of the research and the communicability and transparency of the coding process (O'Connor & Joffe, 2020). A sample of the data was coded by the independent coder, a peer psychologist in training, and where differences arose, they were discussed and amended where necessary (O'Connor & Joffe, 2020). The independent coder had qualitative coding experience, no previous experience with the research, and specialised knowledge of the research topic (Nili et al., 2020). The more agreement there was on codes assigned, the more

confident the researcher could be that the findings were reproducible and trustworthy (Nili et al., 2017). Employing the independent coder essentially served as a badge of trustworthiness (O'Connor & Joffe, 2020).

First and second-level member checks were conducted to enhance the accuracy, credibility and trustworthiness of the results, through involving participants in the interpretation of data (Birt et al., 2016). Some participants were presented with their interview transcript and a copy of emerging findings for review, comment and/or correction (Thomas, 2017). All participants were invited to engage in the first and second-level member checks but only some agreed to participate, and there were no adjustments made following their involvement. At the end of the data analysis stage, an 'Activity System' diagram depicting the utility of the Continuum of Support was produced (see Figure 3.4).

Figure 3.4

Activity System of the Implementation of the Continuum of Support Framework



3.5.10 Researcher Reflexivity. Reflexivity relates to the researcher's positionality in relation to the study participants, and their acknowledgement and recognition that this may impact the research process and outcomes (Berger, 2015). To enhance the accuracy of the research and the credibility of the findings, the researcher monitored the effects of reflexivity during the research process by accounting for their own values, beliefs, knowledge and biases (Berger, 2015). The researcher acknowledged their own role; avoided projecting their own experiences; and ensured that certain participants were not over or under represented in the analysis process, to avoid contaminating the data (Berger, 2015). Reflexivity was further maintained through the use of member checks and the creation of an audit trail and reflexive journal (Berger, 2015; Carcary, 2009) (see Appendix X). Confirmability was also established through maintaining a reflexive journal. It included all events that occurred throughout the research process and reflections on each interview conducted, including the researcher's attitudes and reactions (Anney, 2014). Field notes were also maintained to encourage reflection and to increase the rigor and trustworthiness of qualitative findings (Phillippi & Lauderdale, 2018) (see Appendix Y).

3.6 Results

The data gathered from class teachers and special education teachers was used to create an 'Activity System' depicting the utility of the Continuum of Support framework (Hashim & Jones, 2007) (see Figure 3.4). The whole work activity was then broken down into analytical components or nodes (Hashim & Jones, 2007). These analytical components consisted of subject, object, outcome, rules, community, division of labour and tools (Hashim & Jones, 2007). The primary themes of these nodes will be discussed in detail. Primary contradictions within nodes of the activity system are presented in Table 3.2 (Engeström & Sannino, 2010). Secondary contradictions that occurred between two nodes are presented in Table 3.3.

3.6.1 Subject. The subject of an activity system is the individual or subgroup whose perspective is being examined (Engeström & Sannino, 2010; Hashim & Jones, 2007). Relative to the current study, the perspectives of class teachers and special education teachers were examined. This node consists of four main themes, each with a number of subthemes (see Figure 3.5).

Figure 3.5

Diagram of Subject Node

3.6.1 Subject			
3.6.1.1 Perceptions of the Role of Class Teachers.	***3.6.1.2 Perceptions of Problem-Solving Frameworks.***	***3.6.1.3 Stages of the Continuum of Support are Repetitive.***	***3.6.1.4 Continuum of Support as a Reflective Tool.***
Perceived lack of understanding of the role of the class teacher in setting targets.	Class teacher's role in implementing problem-solving frameworks. Shared awareness of the need for training in an additional framework. Continuum of Support as a problem-solving framework.	Repetition of documents.	Effective tool of reflection.

3.6.1.1 Perceptions of the Role of Class Teachers. This theme concerns the understandings of the role of the class teacher, capturing the thoughts of both the class teachers and special education teachers interviewed. A perceived lack of understanding of the role of the class teacher in setting targets emerged as a subtheme in most interviews:

> This is challenging for me and I get the information from special education teachers. They feed me my teaching strategies. I find it difficult to develop targets from the assessments and information given to me by external professionals, parents and special education teachers. I find it difficult to formulate plans and targets with so many sources of information. (P2 class teacher)

Class teachers discussed that "setting targets can be overwhelming and a bit of a grey area for me so I work from the special education teachers' plans" (P3), and that "I am following the targets that the special education teacher comes up with at the beginning of the year" (P6).

It can be inferred that a lack of adequate professional training on devising targets for pupils with SEN, from evidence collected through formal and informal assessments, has had negative implications for educators confidence. For example:

> Teachers need help with picking out learning goals from assessment results and observations. How do teachers decide what needs revising and what constitutes success in terms of the child reaching a learning goal? How to filter through all learning goals identified? (P10 special education teacher)

3.6.1.2 Perceptions of Problem-Solving Frameworks. Participants had limited knowledge of the Continuum of Support as a problem-solving framework. For example, "I don't follow a problem-solving framework, I am unaware and unknowledgeable of such frameworks" (P2 class teacher) and that "the support team may not be completely aware of the model as a problem-solving framework" (P7 class teacher). Some participants discussed that their understanding of the Continuum of Support framework was that "it is a fair approach as pupils with the most significant needs are matched with the greatest level of support" (P3 class teacher), and "that it is a tiered approach to identifying children who need more support in school" (P10 special education teacher). Additionally, "it requires all staff to be on the same page and needs to be completed throughout the year on an ongoing basis" (P9 special education teacher).

There was a widespread consensus that there was a need for training in an additional problem-solving framework:

> Training in another problem-solving framework other than the continuum would be of great interest to me and it would greatly benefit a teacher who is unclear about organizing additional support for certain students, and in deciding if an intervention measure is necessary for a student with a question mark. (P2 class teacher)

> In terms of usefulness, the continuum can be vague and not very comprehensive. I would like to be more informed of different problem-solving approaches that are being implemented in other European countries so that I can compare and contrast their usefulness and practicality. (P10 special education teacher)

The rationale for implementing the Continuum of Support framework was also discussed by most participants. For example, “I do feel like I’m not knowledgeable in terms of the governments reasons to implement the Continuum of Support model, the facts and figures that support the model” (P4 class teacher) and “I don’t know why, or understand why it is implemented. It does not fully complement a school’s profile of needs. My concern is that it does not provide me with flexibility in my teaching approaches” (P11 special education teacher). The educators expressed their concerns that they were implementing policies and practices that they did not fully understand or accept.

3.6.1.3 Stages of the Continuum of Support are Repetitive. Some participants reflected their opinion that the stages within the framework were repetitive. Class teachers discussed that “I find in my school that classroom support and school support for some are the same” (P5) and “that the needs of the child are being met regardless of what stage they are at, as the stages are a repetition of one another” (P6). There was also a repetition of documents within the Continuum of Support framework. Participants noted that “having a systematic process to work through might be more beneficial and save time” (P1 class teacher); that “some documents can be repetitive” (P6 class teacher); and that it “could be condensed into a more compact form” (P9 special education teacher). Additionally:

> I feel that we definitely need to encourage a more streamlined approach online. In our school there are a lot of documents to be filled out for the Continuum of Support, some of which are a repetition of each other. (P7 class teacher)

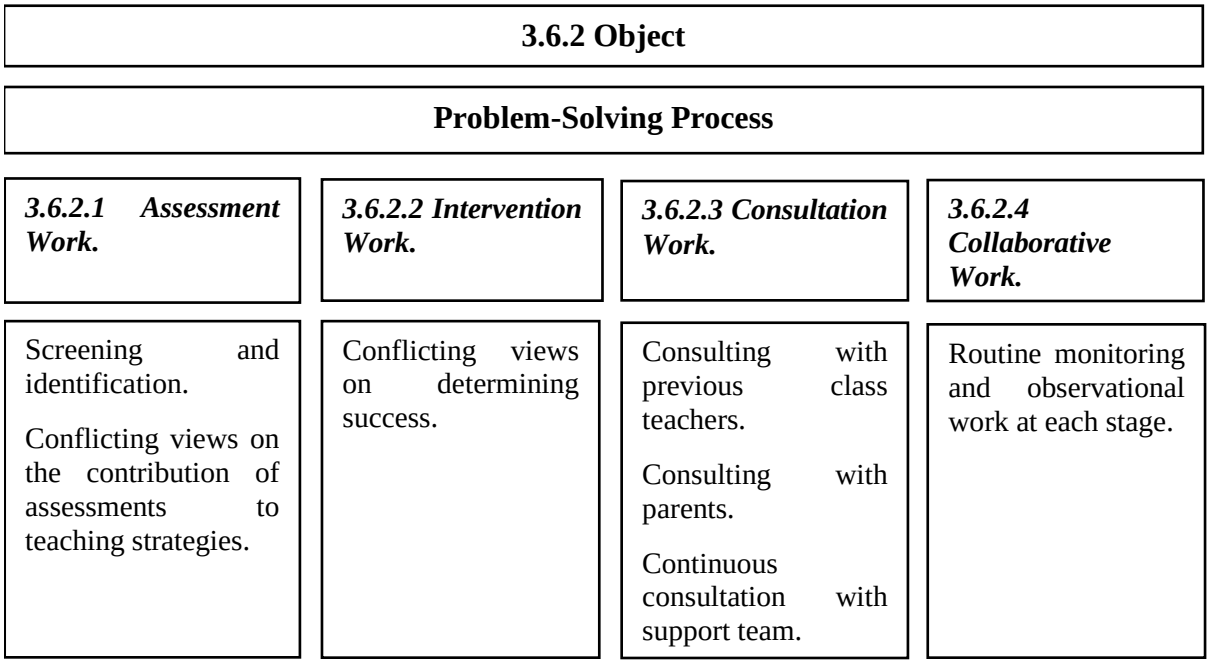
3.6.1.4 Continuum of Support as a Reflective Tool. Implementation of this three-staged problem-solving framework, afforded participants the opportunity to self-reflect on their own teaching strategies and the learning and progress of pupils. Participants became “more aware and focused on teaching strategies and how best to interact with the child and what little bit of extra support they may need” (P6 class teacher). It was discussed that it “does encourage reflection on the effectiveness of strategies, materials and interventions” (P10 special education teacher).

3.6.2 Object. The object of an activity system is the raw material at which the activity is directed (Engeström & Sannino, 2010). It is what is being worked on or acted upon (Leadbetter et al., 2007). The object node of this research concerned the activities undertaken

by class teachers and special education teachers when implementing the Continuum of Support framework. A diagram depicting the object node can be seen in Figure 3.6.

Figure 3.6

Diagram of Object Node



3.6.2.1 Assessment Work. Running and anecdotal records, behaviour charts, diagnostic and standardized tests, assessment for learning and assessment of learning, were the predominant assessments utilised by participants in the screening and identification of pupils with SEN. Two of the class teachers discussed that "it is all teacher led observational assessments in Junior and Senior Infants" (P7) and that "they focus mainly on observational assessment techniques in the classroom for younger pupils" (P1).

Nonetheless, participants had conflicting views on the contribution of assessments to teaching strategies:

> These assessments are needed to focus on their individual growth and development so that they don't get lost in the crowd which can often happen when children with special needs or learning difficulties get a form of education that does not support or guide them specifically. (P1 class teacher)

Participants noted that “it informs differentiation in planning” (P3 class teacher) and that “you can differentiate accordingly and support the child better when you are aware of additional needs” (P8 class teacher). By contrast, teachers discussed that “these assessments are useful for planning but contribute little to my teaching strategies (P2 class teacher) and that “a lot of the time the results do not tell you any information that you did not know previously” (P6 class teacher).

3.6.2.2 Intervention Work. Study findings indicated that a lack of adequate training on progress monitoring, for determining a pupil’s adequate response to intervention, has served as a barrier to gauging improvements in the pupil’s learning. Class teachers and special education teachers have been left feeling discouraged with pupils with SEN potentially missing windows of opportunity to reach their full potential. For example, one class teacher discussed that:

> There is very little guidance and professional training on matching the most appropriate interventions to the needs of the child, and then determining their adequate response to intervention. There is no checklist for the teacher to follow to ensure that they have taken all the measures, and for them then to decide whether the pupil’s progress is insufficient despite the interventions in place. (P2)

There were conflicting views on determining success of interventions within the Continuum of Support framework. Predominantly, participants discussed that “deciding when an intervention should be put in place over simply differentiating for a student with needs, can be problematic” (P4 class teacher) and “how many reviews should take place before moving onto the next level of support, how do teachers determine the length of time that should be dedicated to interventions and learning goals?” (P10 special education teacher). It was further questioned “how do you know if enough time has been given for previous interventions to work?” (P11 special education teacher).

3.6.2.3 Consultation Work. Participants emphasised the importance of consultation as a noteworthy facilitator to their work within the Continuum of Support framework. Specifically, participants referred to their consultations with previous class teachers, parents and the student support teams. Participants noted “I consult with the special education teacher, working with pupils in groups or on a one-to-one basis, and the parents to see their views on what helps their child in their setting and at home” (P3 class teacher), and that “team meetings

and consultations with everyone involved takes place, teachers and parents, to share ideas and create an ongoing plan" (P11 special education teacher). One participant spoke about how "whole team consultation would be strong in our school. We consult with other members of staff within the same class level to look for areas of expertise, as well as consulting with the support team" (P7 class teacher).

3.6.2.4 Collaborative Work. This theme regards the collaborative practices utilised by participants to enhance the educational experiences and learning outcomes for pupils with SEN. For example:

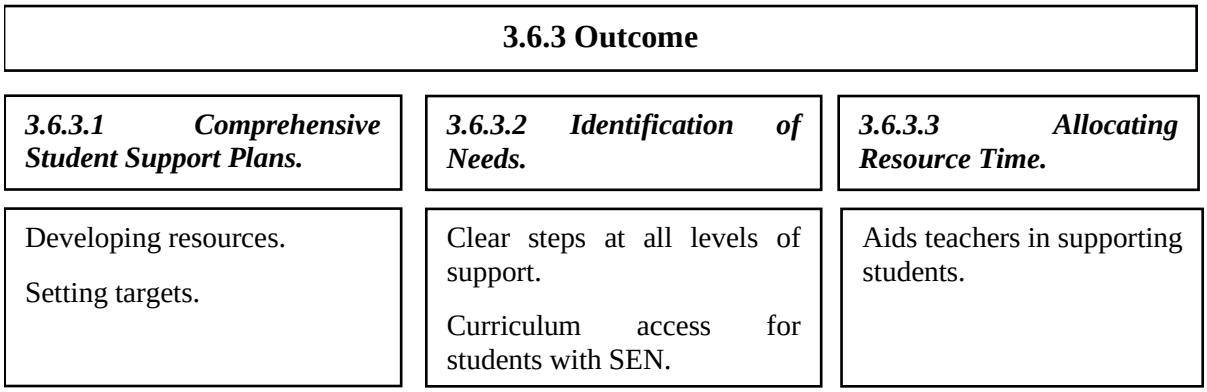
> I sit down with the support team and we collate all of the information from the many different sources and parties so that planning remains clear and concise. Student support plans are a collaborative effort with us transferring assessment scores into targets and needs for pupils. (P5 class teacher)

Participants discussed that through implementing the Continuum of Support framework, "all information is pooled together to meet the needs of pupils, groups are then organised collaboratively, and the child's needs and progress are constantly being reviewed by the class teacher and support team" (P3 class teacher). The "constant review of the support plan by class teachers and support teachers means it is kept up to date" (P6 class teacher). Effective collaboration between participants has helped improve instruction and provide additional supports for struggling pupils. Essentially, "it is a team of professionals working collaboratively together for the benefit of the same outcome" (P8 class teacher).

3.6.3 Outcome. Within Activity Theory, outcome relates to what is hoped to be achieved (Leadbetter et al., 2007). Three primary outcomes related to implementation of the Continuum of Support framework, were derived from the data and can be seen in Figure 3.7.

Figure 3.7

Diagram of Outcome Node



3.6.3.1 Comprehensive Student Support Plans. The class teachers and special education teachers noted that a desired outcome from implementing this problem-solving process, would be the development of comprehensive student support plans. Additionally, developing resources and setting targets for pupils were two subthemes that emerged. One class teacher noted that:

> You collect all the data and start to develop resources and a support plan that will best suit that child. However, after making that plan there needs to be continuous assessments and modifications made as that child grows and develops and achieves goals. (P1)

Participants discussed that "we have a folder of the child's work, adding in new targets, deleting targets met, and revising support plans for that student" (P3 class teacher) and that "we work together to compile support plans for students" (P11 special education teacher). Furthermore, "everybody is given clarity on what targets to prioritize, the time-frame in which to reach and reassess these, what strategies and interventions are to be implemented within the class" (P4 class teacher).

3.6.3.2 Identification of Needs. A second desired outcome of participants involvement in this problem-solving process, was the identification of pupils' educational needs. Less emphasis was placed on their social and emotional needs, in addition to needs linked with language and communication, physical and sensory difficulties. Participants discussed that this was facilitated by the provision of clear steps at all three levels within the Continuum of

Support “with the support for the teacher increasing as they approach each stage” (P2 class teacher). One class teacher stated that “I find it useful to follow the clear stages in helping to identify the needs of the child and their targets and then implementing interventions to help them achieve the targets” (P5). Another class teacher discussed that “every case is different and needs to be progressed sensibly and with caution. The stages allow for appropriate monitoring to occur and for assumptions of a diagnosis to be avoided” (P8).

A second subtheme that emerged is that participants had anticipated that implementation of the Continuum of Support framework would increase the extent in which pupils with SEN can access the school curriculum. One class teacher discussed that the desired outcome from implementing this framework would be “that the child can access the curriculum and be a happy learner in the classroom” (P7). Nonetheless, it is questionable whether a Continuum of Support that is inclusive and responsive is being promoted “as not all support networks support the pupil’s social, emotional and behavioural needs” (P11 special education teacher). Participants noted that “I do focus primarily on addressing academic targets over social, communication, emotional and behavioural goals, with little thought given to them” (P2 class teacher); and “I want to ensure that I only cover their learning programme and the curriculum content. I only consider other aspects of the child if they interfere with the child’s academic needs” (P10 special education teacher). It can be assumed that the individual needs of pupils across a broad range are not being considered. One class teacher discussed that
“I find that we primarily focus on addressing pupil’s academic needs and a huge amount of time and effort is spent on differentiation at each class level” (P8).

3.6.3.3 Allocating Resource Time. A third desired outcome related to implementation of the Continuum of Support framework, was the allocation of resource teaching hours[2] to pupils assessed with SEN. One class teacher discussed that “there is a table plan in our school comprised of higher, middle and low ability pupils, with low ability groups receiving a support teacher in class or being withdrawn for individual reading and writing support” (P1). The

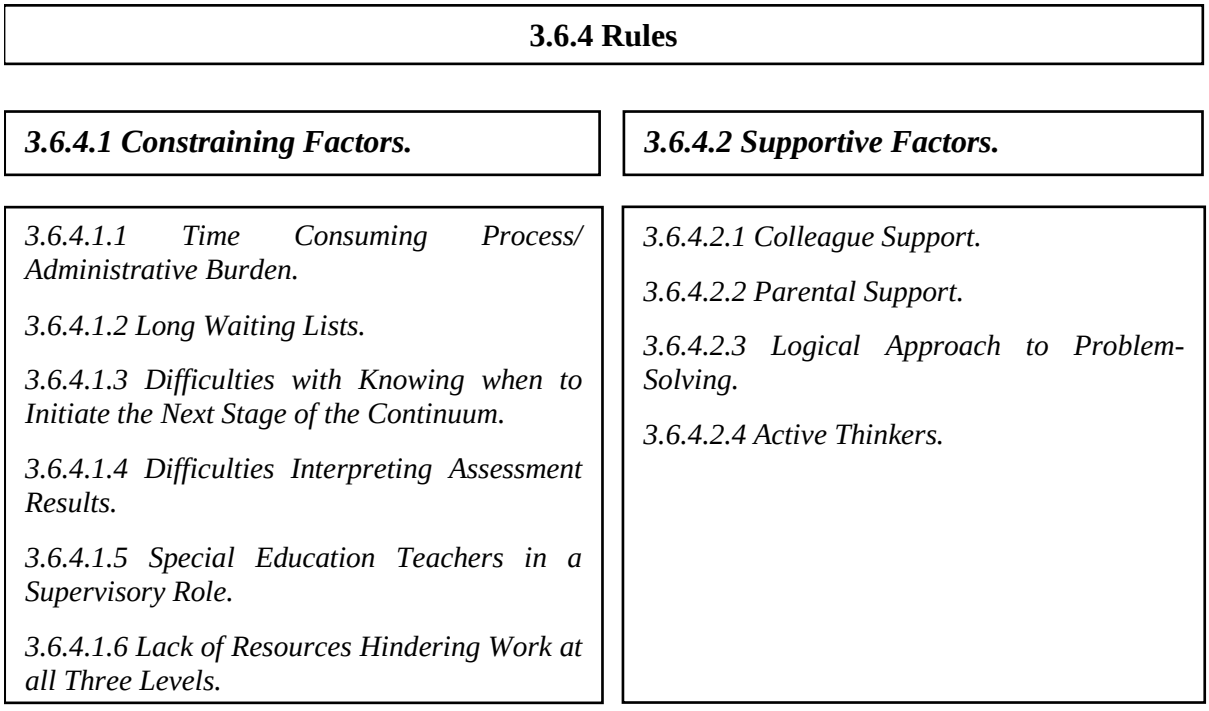
[2] Launched in 2017, the new special education teaching allocation model replaced the GAM and EAL scheme (NCSE, 2014; DES, 2017a, 2017b). An assessment and diagnosis of disability and SEN was no longer a prerequisite to access resources, with resource allocation now based on identified needs rather than diagnosis (NCSE, 2014; DES, 2017a, 2017b). Schools now have greater autonomy in how they manage and deploy additional teaching support with pupils being supported in a whole class group, in small groups, or individually (DES, 2017a, 2017b). Needs are now identified to inform interventions rather than administering assessments for resource allocation purposes (NCSE, 2014; DES, 2017a, 2017b).

Continuum of Support framework further helps with "identifying students who need additional support in school, pinpoint what level of support they need, and it seems to help with monitoring these students and allocating resource hours accordingly" (P10 special education teacher). Additionally, one class teacher discussed that "the SEN support team would make a plan of support such as resource time once the child had been assessed" (P6).

3.6.4 Rules. This node relates to the norms, conventions, regulations, and standards that support and constrain actions within the activity system (Engeström & Sannino, 2010). A diagram depicting the rules node can be seen in Figure 3.8.

Figure 3.8

Diagram of Rules Node



3.6.4.1 Constraining Factors. Constraining factors relate to the aspects of the class teachers and special education teachers work that impairs or hinders their activities at each level of the Continuum of Support framework: Classroom Support, School Support and the School Support Plus stages (Karasavvidis, 2009). The rules that impinge on activities are of paramount importance and the knowledge gained from identifying such constraining factors, can further be applied to help improve practice (Karasavvidis, 2009).

3.6.4.1.1 Time Consuming Process/Administrative Burden. This theme relates to the coordination of assessment information for formulating support plans and the length of such plans. Specifically, adequate time was cited by the majority of participants as a barrier to effective inclusive practice. Participants discussed that "it can also be difficult and time-consuming to coordinate the assessments and information from all the different sources" (P2 class teacher); that "it can be time consuming and plans can be lengthy" (P3 class teacher); and that "time constraints would be a huge problem for us. There is too much paperwork and documentation to be completed" (P9 special education teacher).

Participants expressed their difficulties with finding the time to implement the Continuum of Support framework within their busy school environments. One class teacher noted that they monitor and report on the progress of pupils through "chats with the support teacher whenever we get a minute throughout the school day" (P6). Data analysed from the participants interviewed also inferred that the time taken to implement the framework, negatively impacted the quality of teaching:

> It takes up a lot of time and can prevent teachers from teaching at the best of their ability as staff have found that they spend so much time carrying out assessments, correcting, and assigning groups etc., that the quality of the teaching can be negatively affected unfortunately. (P9 special education teacher)

3.6.4.1.2 Long Waiting Lists. Participants discussed that the initial stages of classroom differentiation at the 'Classroom Support' level, can slow down the process for pupils requiring additional support:

> The focus with the Continuum of Support model is initially on differentiation. The drawback here is that it might significantly delay the intervention process and therefore widen the learning gap between a student who is struggling and his or her peers. (P4 class teacher)

Consequently, "some children may have to wait longer as they end up on a waiting lists of sorts" (P1 class teacher).

Participants struggled with the prioritization of pupils on such waiting lists, and this was further accentuated throughout the study findings. One class teacher discussed that

"teachers also need support in choosing which students should be prioritized for School Support" (P2). The principle that those with the greatest level of need obtain the greatest levels of support, also proved challenging:

> It is difficult to determine who in the class has the greatest level of needs and to then decide who gets the greatest level of support. This can be difficult in terms of which children who have similar needs gets prioritized over the other. (P4 class teacher)

Participants disclosed that they felt that windows of opportunity were being missed with pupils, with one class teacher noting that "not missing windows of opportunities for children is a worry that I have" (P3).

3.6.4.1.3 Difficulties with Knowing when to Initiate the Next Stage of the Continuum. Most participants expressed their difficulties with differentiation and meeting the specific needs of each pupil. Specifically, difficulties were noted in applying their own professional judgement when deciding when to initiate the next stage of the Continuum of Support framework. It was questioned "how does a teacher know when it is appropriate to initiate the next stage? What further information should they consider implementing at the current stage before initiating the next?" (P11 special education teacher). One class teacher noted that:

> The initial stage can be challenging for teachers and the decision to initiate the next stage can be a bit unclear. Teachers are responsible for initiating the problem-solving process. With the problem-solving process, it is difficult to determine how much time to spend on differentiation before deciding that the student may require additional support. (P2)

3.6.4.1.4 Difficulties Interpreting Assessment Results. This theme regards the competence of participants in developing individual pupil targets from assessment scores. The general consensus was that "teachers need advice on transferring assessment scores to targets in student support plans" (P3 class teacher). Additionally, "teachers would be more confident and competent if they were shown how to interpret assessment scores and tie them into planning" (P10 special education teacher). Whilst most participants acknowledged that assessments have been an integral component of classroom practices for quite some time now, "it can be difficult for teachers to understand what to do with the information when it is

gathered. Does it warrant further diagnostic observations from special education teachers or does the teacher continue to differentiate?" (P2 class teacher). One special education teacher noted that "interpreting the assessment scores can be problematic as most assessments are quantitative which can be difficult to translate into practical terms and to plan actionable measures" (P11).

3.6.4.1.5 Special Education Teachers in a Supervisory Role. One of the six principles guiding implementation of the New Model for Allocating Special Education Teaching Resources, is that such supports provided to schools, should only be used to support pupils with identified SEN (DES, 2017a). Despite this, most participants discussed that special education teachers were often used in a supervisory role if class teachers were absent. One class teacher noted that "special education teachers are often called on to supervise classes if another teacher is absent, which means the class does not receive support on that day, and therefore makes it difficult to achieve targets" (P5). Pupils progress towards the targets set for them being accomplished was impaired as:

> a child with SEN has a routine and structure with the special education teacher working with them. When special education teachers are asked to teach classes when teachers are absent, the child's progression is impacted as they do not receive consistent and repeated instruction. They are used regularly as substitute teachers. (P1)

3.6.4.1.6 Lack of Resources Hindering Work at All Three Levels. A key barrier that hindered participants' activities within the Continuum of Support framework was a lack of resources. One class teacher emphasized the impact of the lack of such resources stating that "the amount of needs and types of needs arising are huge. Most schools will never have enough resources to give every single child exactly what they need, as much as they would want to" (P8). Another class teacher discussed that there "are not enough resources in place to adapt teaching as you would like to for the child's needs" (P7). Participants' ability to maximize the academic learning time of pupils with SEN and engage them in meaningful activities within the classroom, was significantly impacted. This was further hindered by delays with obtaining support from EPs. Participants discussed that "it can take a long time to get the child assessed and results of assessments sent to the school" (P7 class teacher) and that "there are significant delays with assessments and obtaining results and reports" (P11 special education teacher).

Data analysed from the participants interviewed, indicated that increasing class sizes hindered the efficacy of their work within the Continuum of Support framework as there was a lack of staff. There was no recruitment of additional special education teachers to cater for such increases, and participants voiced their concerns that the needs of pupils were not being met. Class teachers noted that "with rising numbers in classrooms and a limited number of support teachers, this can be problematic" (P4) and that it is "not the school's fault but more teachers are needed to facilitate an increasingly high amount of needs" (P8).

3.6.4.2 Supportive Factors. Supportive factors relate to the aspects of the participants work that facilitates or enhances their activities within the Continuum of Support framework (Karasavvidis, 2009).

3.6.4.2.1 Colleague Support. A key facilitator to participants' activities within this problem-solving model was colleague support. This related to their collaboration on the successes and setbacks of pupils and the allocation of resources. Class teachers discussed that there is "great collaboration, teamwork, and ideas shared" (P1), and "great camaraderie and teamwork in helping the children in our care, and if someone needs more help with a student, they will receive it" (P6). One class teacher echoed the sentiments of all participants regarding the allocation of resources noting that "the SEN team look at the needs in each class and decide where to allocate the resources. The class teacher and special education teacher plan how to use them hours depending on the needs of the students in the class" (P5).

3.6.4.2.2 Parental Support. All participants discussed that parental support facilitated their work within the Continuum of Support framework. For example, one class teacher discussed that "our school encourages keeping an academic diary and conducting routine checkups with the parents along with the special education team to ensure the pupil has a stronger chance of progression and acquiring their academic goals" (P7). This had positive effects on the pupil's development as there was consistency across home and school environments with regards to devising targets. "Regular meetings with parents and the SEN team were facilitated" (P5 class teacher), with one class teacher noting that they "work on the recommendations and observations made by the child's parents" (P3). Parental involvement was encouraged as "collaboratively a plan can be put in place using a range of opinions and information from parents and different sources" (P1 class teacher).

3.6.4.2.3 Documentary Support/Templates. There was a general consensus by participants that the Continuum of Support "is a logical approach to problem-solving" (P2 class teacher), that "follows a step-by-step approach moving from micro to macro" (P7 class teacher), and that "is an effective model that demonstrates clearly what stage of the continuum the child is at" (P6 class teacher). It was discussed by one special education teacher that:

> Each child in our school has a Continuum of Support, and each class has a Continuum of Support folder. The folder follows the class up every year of the school then and information, meetings, and movements within the three levels is implemented. (P9)

The participants further emphasized the benefits of the resource pack for teachers, containing checklists and blank samples for each stage. One special education teacher discussed that the "templates help to organize all of the information gathered" (P11). These templates supported participants in reflecting on their own teaching and the pupil's learning. Class teachers noted that "it encourages me to reflect on my own teaching" (P3) and "to reflect on teaching methods" (P5). This resulted in "improvements in the quality of planning, teaching, resources, and teaching methods" (P5 class teacher), as participants were required "to reflect and talk about what is working and maybe what needs to be targeted more" (P6 class teacher).

3.6.4.2.4 Active Thinkers. Participants discussed that the Continuum of Support framework enabled them to become active thinkers in the decision making process. This was initiated at the 'Classroom Support' stage with one class teacher noting that "what we observe in class sets the motion rolling" (P8). This action was further facilitated "as everyone is working together" (P5 class teacher) and it "keeps all parties, the class teacher, support teacher, and parents in the loop" (P6 class teacher). One class teacher discussed that:

> There is a coordinating special education teacher that oversees that steps within the Continuum of Support framework are being adhered to. In the next parent-teacher meeting, suggestions and contributions are made by both parties and active thinking is encouraged. This ensures that everyone is carrying their weight in helping to meet the needs of the pupil with SEN. (P2)

3.6.5 Community. The community of an activity system looks at who else is involved (Leadbetter et al., 2007). A diagram depicting the community node can be seen in Figure 3.9.

Figure 3.9

Diagram of Community Node

3.6.5 Community	
3.6.5.1 Working Together at a Systems Level.	***3.6.5.2 Input from External Professionals.***
Previous class teachers and family.	Recommendations not matching pupils' educational needs. Educators practice being informed by external professionals. Overburdened with pupils. Need for more consistent support.

3.6.5.1 Working Together at a Systems Level. Developing positive relationships between schools and families has growing priority within the education system in order to best support pupils learning and development. Relative to the current study findings, both previous and present educators worked collaboratively with families to best serve pupils with SEN. One special education teacher discussed that "each of the stages are followed and questions are answered using a family-centred approach. We are highly responsive to the needs of different families and work collaboratively with them to make decisions about their child" (P10). Additionally, "during parent-teacher meetings, we discuss with parents their goals and everyone is clear about future actions. Parents appreciate when we follow through on our commitments to them" (P3 class teacher). Collaborative family engagement was evidently established and supported in the identification and monitoring of pupils with SEN "with parents valuing when teachers' recognise them as experts of their child" (P6 class teacher). Participants discussed that "targets and plans are set for students through collaboration with their family and special education team" (P1 class teacher), and that "pupils with SEN are best served when previous and present teachers work collaboratively with their families" (P11 special education teacher). One class teacher noted that:

> As the teacher, you try solve what you can in your immediate environment first using checklists, parent consultations, consultations with the previous class teacher and support team, and inclusive and child-centered teaching practices. You then move onto

support outside the classroom through in school and outside agency support, and parental involvement. (P7)

3.6.5.2 Input from External Professionals. NEPS psychologists were identified by participants as the main personnel providing support to pupils with SEN outside the school team. Nonetheless, there were conflicting views on the support obtained from NEPS psychologists. While participants valued the external support obtained from EPs, they were also perceived by schools as not providing an adequate service. Participants voiced their concerns that the recommendations provided by NEPS, did not at times match pupils' educational needs, and that their practice was being informed by external professionals:

> I do feel like the School Support Plus is often in the hands of external professionals and that the teacher's role is to implement the agreed steps. It can be challenging for teachers to see how the provisions NEPS advise match a student's needs. A new way for NEPS to make psychological advice meaningful, purposeful, and tangible for teachers is needed. There can be gaps for teachers in interpreting the reasons behind strategies and resources suggested by educational psychologists. (P2 class teacher)

Another class teacher discussed that "an area for improvement from Educational Psychologists is ensuring that suggestions made are applicable to a real life classroom situation and that realistic goals are being set" (P8). By contrast, one class teacher noted that "if an external professional has been involved, I read their reports and implement the strategies recommended to me by them then" (P3).

Participants further expressed their concerns that NEPS psychologists were overburdened with pupils and that there was a need for more consistent support. One class teacher discussed that securing a "consultation with NEPS can take many months. When this consultation is set up then, they are often overburdened with children so they cannot provide the school team with adequate support" (P7). A special education teacher expressed the opinion of all participants noting that:

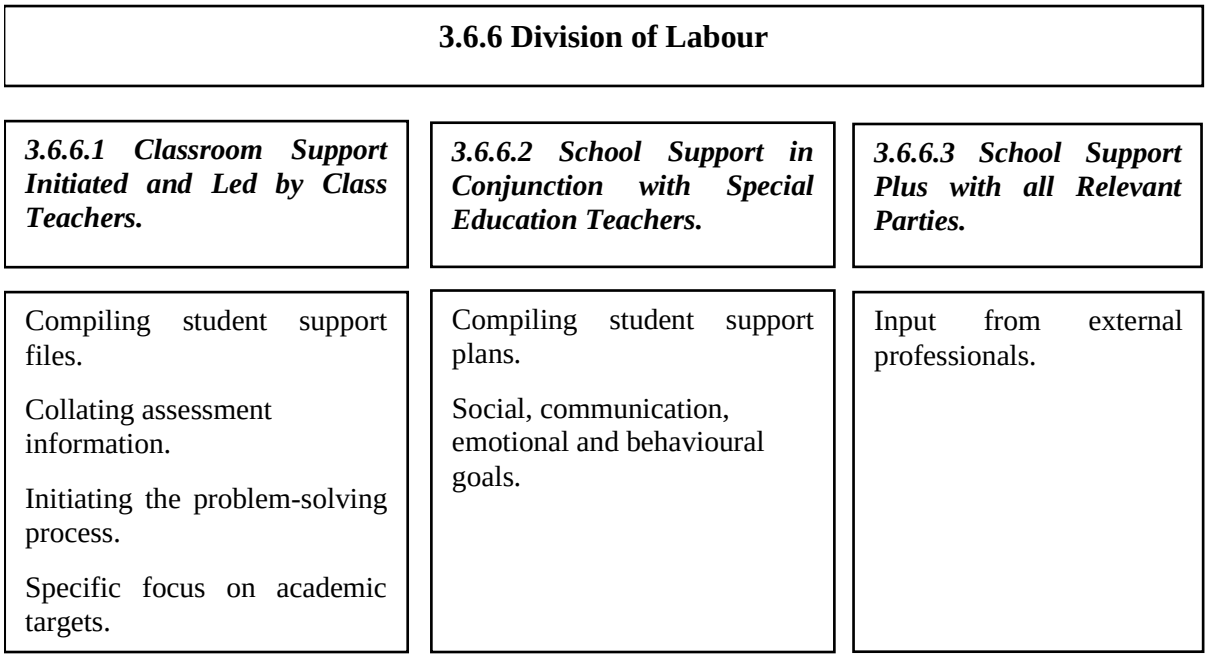
> It would be helpful to collaborate with an Educational Psychologist as to how to collate information gathered, explain where the student ranks in terms of peers of similar age and ability, and how to pick out learning goals from the information gathered. It would

reassure teachers that they are using the information gathered optimally. Teachers would be more confident and competent if they were shown how to interpret assessment scores and tie them into planning, and how to look out for signs of progress using these records. (P10)

3.6.6 Division of Labour. The division of labour node relates to the allocation of tasks, or distribution of actions, amongst workers within an activity system (Hashim & Jones, 2007; Leadbetter et al., 2007). The main themes and subthemes surrounding this node can be seen in Figure 3.10.

Figure 3.10

Diagram of Division of Labour Node



3.6.6.1 Classroom Support Initiated and Led by Class Teachers. 'Classroom Support' is initiated and led by the class teacher within the mainstream classroom. It is their first response to pupils emerging needs. Relative to the current study findings, participants discussed that "we begin by creating a student support file for each child and identifying each child's needs" (P9 special education teacher), and "document all inputs from the different

parties and keep a teacher planner journal" (P4 class teacher). Class teachers were responsible for initiating the problem-solving process:

> I just jot down on a sticky note on my clipboard throughout the day, anything I found interesting or of concern that a child did or said, and I would consult with my support teachers on how we can target any academic needs. (P6 class teacher)

Nonetheless, participants discussed their difficulties with the gathering and collating of information during this phase of the problem-solving process. One class teacher noted:

> It can also be difficult and time-consuming to coordinate the assessments and information from all the different sources. As the information isn't collated, it is difficult to see what needs to be prioritized, and which academic needs should be addressed first. (P2)

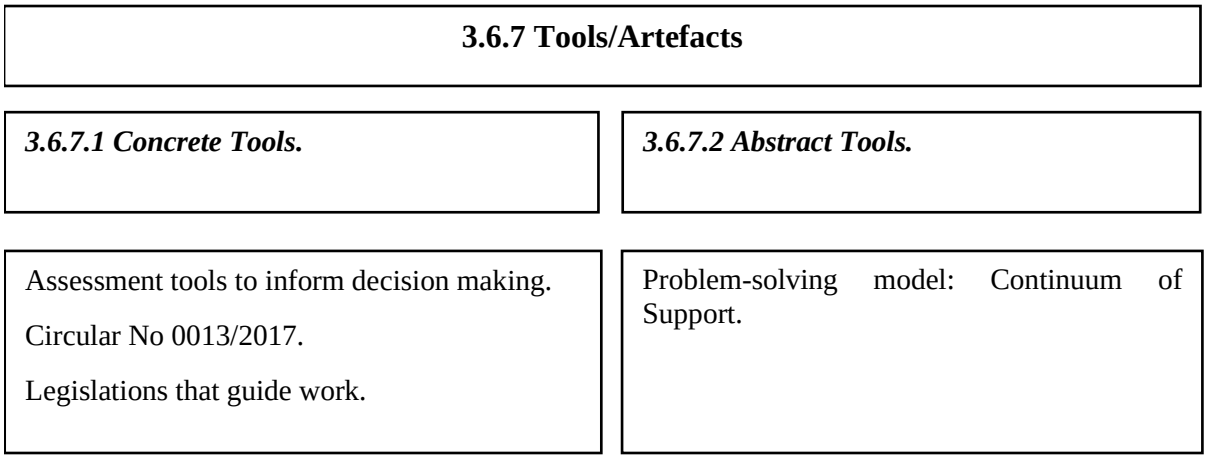
3.6.6.2 School Support in Conjunction with Special Education Teachers. All participants discussed that the 'School Support' stage is an assessment and intervention process. It is coordinated by the special education teacher working alongside the class teacher. One participant noted that "other children will need step two where resource or learning support is required. This can be arranged in school with the collaboration of parents and staff" (P8 class teacher). Few participants also considered needs across a broad range. For example, "I consider all needs as a child diagnosed with dyslexia is nowhere near the same needs as a child with Autism" (P11 special education teacher).

3.6.6.3 School Support Plus with all Relevant Parties. All participants spoke about 'School Support Plus' entailing the pupil obtaining more intensive support from personnel outside the school team. For example, "school support plus is in the hands of external professionals, predominantly NEPS, and it is when the pupil requires more intensive support" (P11 special education teacher). One class teacher discussed that "support from NEPS increases at the school support plus stage when pupils with SEN are making inadequate progress despite our best efforts" (P1). Additionally, "information gathered at the first two stages initiates the problem-solving process with NEPS at the school support plus stage with the support from NEPS increasing for both school staff and pupils with SEN" (P3 class teacher).

3.6.7 Tools/Artefacts. This node relates to the concrete or abstract tools used in the mediation between the subject and the object, in order to receive an outcome (Hashim & Jones, 2007; Leadbetter et al., 2007). Concrete tools can include an instrument or machine, whilst abstract tools relate to language, frameworks, or processes (Leadbetter et al., 2007). A diagram of this node can be seen in Figure 3.11.

Figure 3.11

Diagram of Tools/Artefacts Node



3.6.7.1 Concrete Tools. The main concrete tools implemented by all participants within the Continuum of Support framework were assessments. For example, "I use diagnostic assessments, criterion-referenced tests, assessments of learning, assessments for learning, and standardized assessments" (P2 class teacher); "I conduct start of school year assessments in maths and literacy and end of term revision assessments" (P3 class teacher); and "I review the child's progress by looking at work samples, observation records, conducting teacher-designed task assessments, and looking at assessment reports by other professionals" (P10 special education teacher). These assessments assisted participants with the screening and identification of pupils needs.

Most participants referenced *Circular No 0013/2017* relating to the special education teacher allocations for mainstream schools. They discussed that while "it gives schools more flexibility in how they want to use their allocations" (P8 class teacher) and "gives priority to students in need" (P10 special education teacher), expert support from NEPS psychologists was required to ensure its successful implementation. For example, "I do not feel teachers have the expertise to allocate resources to children with specific needs or identified needs. There

needs to be more expert support from NEPS for teachers, so that they can have access to this advice" (P7 class teacher). Some participants also had limited knowledge on *Circular No 0013/2017*. For example, "I do not know much about the new model for allocating resources to be honest" (P6 class teacher) and "I am not that knowledgeable on the new model to be able to comment" (P9 special education teacher).

A number of participants also noted that the EPSEN Act was a legislative framework that guided their work when implementing the Continuum of Support framework. One special education teacher noted that "my professional teacher training and the EPSEN Act helps guide my work in identifying and responding to pupils needs" (P11).

3.6.7.2 Abstract Tools. The abstract tool implemented by participants in the identification and monitoring of pupils educational needs, was the Continuum of Support framework itself, the utility of which has been explored throughout this study.

3.7 Key Contradictions. Data analysis revealed a range of primary and secondary contradictions. Contradictions are key to an understanding of AT as they highlight sources of tension that can result in transformations within an activity system (Murphy & Rodriguez-Manzanares, 2008). Primary contradictions can emerge within any of the nodes of the activity system (Engeström & Sannino, 2010). Secondary contradictions emerge between two or more nodes (e.g. between the rules and division of labour nodes) (Engeström & Sannino, 2010). Identified primary and secondary contradictions are evident in Tables 3.2 and 3.3 and they expose opportunities for change and action (Murphy & Rodriguez-Manzanares, 2008).

Table 3.2

Primary Contradictions Within the Nodes of the Activity System

Number	Location	Contradiction	Extract from Interview
1.	Subject Node.	Overall lack of understanding and/or limited knowledge on the Continuum of Support framework as a problem-solving model.	"I don't follow a problem-solving framework. I am unaware and unknowledgeable of such frameworks" (P2 class teacher). Vs "I do feel like I'm not knowledgeable in terms of the governments reasons to implement the Continuum of Support model, the facts and figures that support the model. I know it's a problem-solving model" (P4 class teacher). Vs "The Continuum of Support, I am not too sure if this is a problem-solving framework" (P5 class teacher).
2.	Object Node.	Perceived lack of clarity on who conducts assessments for the screening and identification of pupils' needs.	"These are not done by teachers. We must inform the special educational team who will run assessments for academic performance" (P1 class teacher). Vs "I use diagnostic assessments and conduct assessments of learning, assessments for learning and standardized assessments" (P2 class teacher). Vs "To be honest, I am not too in the know about the screening and identification of pupils' needs or who conducts assessments. I suppose there is the basic needs checklist and the classroom checklist" (P6 class teacher).
3.	Object Node.	Conflicting views on the impact of assessments on the teaching and learning of the pupil.	"These assessments are useful for planning but contribute little to my teaching strategies" (P2 class teacher). Vs "Conducting assessments informs my teaching and helps me find gaps in the children's learning" (P3 class teacher). Vs "A lot of the time the results do not tell you any information that you did not know previously" (P6 class teacher). Vs "Absolutely, as you can differentiate accordingly and support the child better when you are aware of additional needs" (P8 class teacher).

Number	Location	Contradiction	Extract from Interview
4.	Object Node.	Conflicting views on determining success of interventions at each stage of the Continuum of Support framework.	"The decision to initiate the next stage in the Continuum of Support model can be a bit of a grey area. How does a teacher know if enough time has been given for previous interventions to work? How does a teacher know when it is appropriate to initiate the next stage?" (P2 class teacher). Vs "It can be seen whether the interventions in the stage the child is in are working, or if they need to go up, or down a stage in the Continuum of Support" (P6 class teacher).
5.	Rules Node.	Participants had conflicting opinions on the supporting factors of the Continuum of Support framework.	"It helps me monitor a child's progress, it encourages me to reflect on my own teaching, and it guides my differentiation for students in my class" (P3 class teacher). Vs "Everybody is given clarity on what targets to prioritize, the time-frame in which to reach and reassess these, what strategies and interventions are to be implemented within the class and what work the Learning Support, Resource Teacher and Special Needs Assistant is to implement" (P4 class teacher).
6.	Community Node.	Conflicting views on the external support obtained from NEPS psychologists.	"I take on board strategies that external professionals such as NEPS offer and implement these first". "If an external professional has been involved, I read their reports and implement the strategies recommended to me by them then" (P3 class teacher). Vs "It can be challenging for teachers to see how the provisions NEPS advise match a student's needs. A new way for NEPS to make psychological advice meaningful, purposeful and tangible for teachers is needed" (P2 class teacher). Vs "It would be helpful to collaborate with an Educational Psychologist as to how to collate information gathered, explain where the student ranks in terms of peers of similar age and ability, and how to pick out learning goals from the information gathered. It would reassure teachers that they are using the information gathered optimally." (P10 special education teacher).

Table 3.3

Secondary Contradictions that Occur Between Two Nodes

Number	Location	Contradiction	Extract from Interview
1.	Outcome Node Vs Rules Node.	Desired outcome of implementing the Continuum of Support framework Vs difficulties achieving such outcomes (i.e. developing comprehensive student support plans Vs not having adequate time to formulate such plans.	"We have a folder of the child's work, adding in new targets, deleting targets met, and revising support plans for that student" (P3 class teacher). Vs "time constraints would be a huge problem for us. There is too much paperwork and documentation to be completed" (P9 special education teacher).
2.	Outcome Node Vs Rules Node.	Desired outcome of implementing the Continuum of Support framework relating to the allocation of resources Vs a lack of resources hindering work at all three levels.	"From my perspective, the Continuum of Support seems to help in identifying students who need additional support in school, pinpoint what level of support they need, and it seems to help with monitoring these students and allocating resource hours accordingly" (P10 special education teacher). Vs "there are not enough resources in place to adapt teaching as you would like to for the child's needs" (P7 class teacher).
3.	Rules Node Vs Community Node.	Educational psychologists perceived by schools as not providing an adequate service (i.e. delays with assessments and obtaining results/reports) Vs schools valuing the external support obtained by NEPS psychologists to help support pupils with SEN.	"It can take a long time to get the child assessed and results of assessments sent to the school" (P7 class teacher). Vs "Being readily able to consult outside agencies for more information would greatly enhance the identification of students with needs and also, for educational psychologists to draw up a plan to support children's needs, as usually such consultation with NEPS can take many months. When this consultation is set up then, they are often overburdened with children so they cannot provide the school team with adequate support" (P7 class teacher). Vs "Working together with educational psychologists helps to identify the priority learning needs of students at all three levels of the Continuum of Support framework" (P5 class teacher).

Number	Location	Contradiction	Extract from Interview
4.	Subject Node Vs Rules Node.	Participants wanting training in an additional problem-solving framework Vs the participants recognising that the Continuum of Support framework is a logical approach to problem-solving.	"Training in another problem-solving framework other than the continuum would be of great interest to me and it would greatly benefit a teacher who is unclear about organizing additional support for certain students, and in deciding if an intervention measure is necessary for a student with a question mark" (P2 class teacher). Vs "the staged approach, it is a logical approach to problem-solving. I like how the support for the teacher increases as she or he approaches each stage" (P2 class teacher), and that it "follows a step-by-step approach moving from micro to macro" (P7 class teacher).

3.8 Discussion

3.8.1 Main Findings and Implications. The primary aim of this study was to examine the utility of the Continuum of Support framework in supporting teachers and special education teachers in the identification and monitoring of pupils educational needs. In the following sections, each research question will be presented in turn and subsequently discussed. References will be made to the main findings, obtained from the analytical components of the 'Activity System', and relevant literature (Hashim & Jones, 2007). The strengths, limitations and implications of the current study will also be outlined.

Research Question 1

3.8.2 How is the Continuum of Support framework utilised in an Irish Educational context to allow class teachers and special education teachers to become more active thinkers in the decision-making process? Key findings that emerged revealed that the Continuum of Support framework encouraged active thinking through consultation, collaboration and reflection amongst participants. This allowed participants to become more active thinkers in the decision-making process regarding the identification and monitoring of pupils educational needs. These three themes will now be discussed in turn, with reference to the literature on MTSS. The themes and subthemes used to address this research question are presented in Table 3.4.

Table 3.4

Themes and Subthemes Used to Address Research Question 1

Activity System Node	Theme	Subtheme
1. Subject.	Continuum of Support as a Reflective Tool.	Effective tool of reflection.
2. Object.	Consultation Work.	Consulting with previous class teachers. Consulting with parents. Continuous consultation with support team.
3. Object.	Collaborative Work.	Routine monitoring and observational work at each stage.
4. Rules.	Supportive Factors.	Documentary support/templates.
5. Rules.	Supportive Factors.	Active thinkers.

Note. The entire 'Activity System' was interpreted by the researcher to understand the participants' actions (Engeström, 2001; Frambach et al., 2014). The themes and subthemes used to address each research question were obtained from this interpretation.

All participants indicated that consultations with colleagues and parents facilitated the decision-making process within the Continuum of Support framework. Active thinking was initiated at the initial 'Classroom Support' stage. As conceptualised by Mitchell and Sutherland (2020), such collaborative consultations enabled class teachers to become the leader of the orchestra, rather than working as a soloist. Thus, reducing the professional isolation that can sometimes occur in education systems (Mitchell & Sutherland, 2020). A remoteness that was apparent in the Pyle et al. (2011) study with the class teachers discussing that they were working in isolation within their individual classrooms. Participants in the current study were learning from, and with each other by sharing their expertise. These findings did not coincide with previous studies where increased consultation between colleagues and parents was deemed necessary to increase the efficacy and effectiveness of MTSS. Gates et al. (2013) found that special education teachers were less involved in the consultation process as a result of RtI implementation. Teachers in the Castro-Villarreal et al. (2014) study also identified increased consultation between colleagues as a suggestion for improving RtI implementation. Relative

to the current study findings, consultation within the Continuum of Support framework informed decision-making and supported change and active thinking across the multiple tiers.

The strength of collaboration amongst class teachers and special education teachers in the current study, was an unexpected but valuable finding. As this was the first study in Ireland to explore specifically the perspectives of class teachers and special education teachers on the utility of the Continuum of Support framework, it must be acknowledged that aspects of the primary education system may be having an effect. Policy guidance in Ireland reinforces collaborative teaching practices to help enhance the educational opportunities for pupils with SEN (DES, 2017a, 2017b, 2017c; Mulholland & O'Connor, 2016). The primary curriculum is further based on a collaborative planning process that adopts a whole-school approach to decision-making (Mulholland & O'Connor, 2016). Both the class teachers and special education teachers emphasised the importance of collaboration with colleagues and parents. They were working side by side on a daily basis. This finding is not in line with previous research which found that collaborative efforts amongst class teachers and special education teachers was a key area for development in relation to MTSS implementation (Gates et al., 2013; Wilcox et al., 2013).

However, there was an absence of the voice of the child in such collaborations. It was evidently not prioritised by participants in the current study, despite policy guidance in Ireland encouraging such engagement between schools, parents and pupils (DES, 2017a, 2017b, 2017c). This is not concurrent with the UN Convention on the Rights of the Child that states that a child who is capable of forming views, has the right to express them (Garbarino & Briggs, 2014). In line with Forde et al. (2018), there is a need for the Irish education system to strengthen their efforts and ensure that pupils can express their views in school and educational policies. There is also a need for EPs to work and to measure progress towards such aspirations (Forde et al., 2018).

All participants indicated that the Continuum of Support framework was an effective tool of reflection. Through self-reflection, participants improved classroom and school-level practices which is integral to inclusive teaching (Minott, 2019). The finding that the Continuum of Support framework aids reflective practice is promising. Previous research concluded that reflecting on teaching practices was not ranked highly amongst Irish primary school teachers (Devine et al., 2013). As per Russell (2018), participants reflected on unpredictable and unexpected moments in their practice to form a new, promising course of action. Findings from previous research have emphasised that it encourages both individual and collective professional development (Kramer, 2018; Minott, 2019).

Research Question 2

3.8.3 What are class teachers and special education teachers' perspectives on the supporting factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages? One of the key factors perceived by the class teachers and special education teachers to act as a supportive factor, was the adoption of a family-centred approach to support the learning and development of pupils with SEN. Colleague support further enhanced their activities within the Continuum of Support framework with the external support obtained from the NEPS, increasing as they reached the 'School Support Plus' stage. These key supportive factors will now be discussed with reference to the literature. Themes and subthemes used to address this research question are presented in Table 3.5. Primary and secondary contradictions within nodes of the Continuum of Support Activity System were further investigated to inform implications for policy and practice.

Table 3.5

Themes and Subthemes Used to Address Research Question 2

Activity System Node	Theme	Subtheme
1. Rules Node.	Colleague Support.	Collaboration on successes and setbacks.
2. Rules Node.	Parental Support.	Consistency across environments.
3. Community Node.	Working Together at a Systems Level.	Previous class teachers and family.
4. Community Node.	Input from External Professionals.	Need for more consistent support.
5. Division of Labour Node.	School Support Plus with All Relevant Parties.	Input from external professionals.

Note. In line with Engeström (2001) and Frambach et al. (2014), the entire 'Activity System' was interpreted to understand class teachers' and special education teachers' actions.

All participants emphasised that the Continuum of Support framework encouraged and supported working in partnership with colleagues and families. Participants discussed that there was great collaboration, teamwork and ideas shared. Routine checkups were conducted with colleagues and the families' of pupils with SEN, to ensure they had a stronger chance of

progression and achieving their academic goals. It followed a step-by-step approach and was highly responsive to the needs of the pupil's family. Participants' discussed that the stages within the Continuum of Support framework were followed and that questions were answered using a family-centred approach. The provision of clear steps within each of the three stages, allowed for appropriate monitoring of the pupil's progress to occur. The finding that a family-centred approach was adopted did not coincide with previous studies conducted on MTSS. Participants in the Gates et al. (2013) study reported that the RtI process was predominantly a special education effort. There was an inherent need for education systems to move from a dual system, consisting only of general and special education teachers, to a more unified approach, to include parents and pupils (Gates et al., 2013; Lupart & Webber, 2012). Whilst Pavri (2010) emphasised that partnering with parents within the RtI process was desirable, Robinson (2016) and Werts et al. (2014) indicated that the home and school connection was not present. Again, aspects of policy guidance in Ireland may be having an effect on current study findings.

The Irish government's publication '*Better Outcomes, Brighter Futures*', is a national policy framework for children and young people (DCYA, 2014). One of the key goals of this framework is that it seeks to ensure that parents are equipped and supported to promote the best possible outcomes for their children (DCYA, 2014). It aims to ensure that all children are engaged in, and achieving in education (DCYA, 2014). Additionally, '*Aistear*' the early childhood curriculum framework for children in Ireland, is focused on building positive relationships between parents and practitioners to enhance their learning and development (National Council for Curriculum and Assessment [NCCA], 2009). Both the class teachers and special education teachers discussed that the unified, family-centred approach adopted within the Continuum of Support framework, was crucial for supporting pupils engagement in learning. It ensured that consistency between the classroom and home was maintained and that class teachers, special education teachers and families were working collaboratively together to make decisions about pupils with SEN. In line with Weist et al. (2018), findings indicated that participants were supportive of bringing families, schools and NEPS psychologists together at each stage. This was to ensure a shared awareness and understanding of the child's needs, and to build a complete picture of the pupil.

Participants' acknowledged that pupils with SEN obtained more intensive support from the NEPS at the 'School Support Plus' stage, with the support for the class teacher also increasing. Nonetheless, contradictions emerged between participants' perspectives relating to the availability of external support services to schools and families, specifically NEPS psychologists. Changes are evidently required in the external support provided to schools by

EPs. Class teachers and special education teachers require more consistent support in delivering a broad and balanced curriculum, whilst also meeting the specific needs of pupils within their classroom. Participants dissatisfaction with the levels of support obtained from EPs concurs with other Irish research that highlighted insufficient psychological support for schools and the unavailability of external support services to families (Anglim et al., 2018; Daly et al., 2016).

Research Question 3

3.8.4 What are class teachers and special education teachers' perspectives on the constraining factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages? Constraining factors identified by participants included: lack of adequate professional training, repetition of documents, an unresponsive problem-solving framework, time-consuming process, administrative burden, long waiting lists, increasing class sizes, lack of clarity on how pupils can move across tiers, special education teachers employed in a supervisory role, inadequate input from EPs, difficulties collating assessment information, and a lack of resources. The common narrative from participants illustrates some key issues that have implications for policy and practice in Ireland. The themes and subthemes used to address this research question are presented in Table 3.6. Primary and secondary contradictions within nodes of the Continuum of Support Activity System were investigated to inform implications for policy and practice.

Looking firstly at the two constraining factors of an unresponsive problem-solving framework and special education teachers being used in a supervisory role, study findings indicated that a gap existed between special education policy intentions and the implementation of inclusive practices. In line with Cavendish et al. (2020) and Jordan et al. (2010), participants were the recipients of policy information with significant input on implementation practices. By contrast, EPs had limited input and were not perceived by participants as co-constructors within the Continuum of Support framework. When this occurs, Cavendish et al. (2020) conceptualised it as a hierarchical chain whereby participants were implementing policies and practices that they did not fully understand or accept. When this gap exists, less effective decision-making and interventions are implemented for pupils with SEN (Cavendish et al., 2020). Of significance for this study, participants also discussed that special education teachers were often used in supervisory roles if class teachers were absent. One of the six principles guiding implementation of the New Model for Allocating Special Education Teaching Resources, is that such supports provided to schools, should only be used to support pupils with identified SEN (DES, 2017a). Overall, participants emphasized that expert support from NEPS

psychologists was required to ensure successful implementation of the New Allocation Model. Thus, there is a need for input from EPs to promote consistency in how support and services should be provided to pupils with SEN. Without their support, the current gap between policy and practice will still remain.

Table 3.6

Themes and Subthemes Used to Address Research Question 3

Activity System Node	Theme	Subtheme
1. Subject Node.	Perceptions of the Role of Class Teachers.	Perceived lack of understanding of the role of the class teacher in setting targets.
2. Subject Node.	Perceptions of Problem-Solving Frameworks.	Shared awareness of the need for training in an additional framework. Continuum of support as a problem-solving framework.
3. Subject Node.	Stages of the Continuum of Support are Repetitive.	Repetition of documents.
4. Object Node.	Assessment Work.	Conflicting views on the contribution of assessments to teaching strategies.
5. Object Node.	Intervention Work.	Conflicting views on determining success.
6. Outcome Node.	Identification of Needs.	Curriculum access for pupils with SEN.
7. Rules Node.	Constraining Factors.	Time consuming process/administrative burden. Long waiting lists. Difficulties with knowing when to initiate the next stage of the continuum. Difficulties interpreting assessment results. Special education teachers in a supervisory role. Lack of resources hindering work at all three levels.
8. Community Node.	Input from External Professionals.	Recommendations not matching pupils' educational needs. Educators practice being informed by external professionals. Overburdened with pupils.
9. Division of Labour Node.	Classroom Support Initiated and Led by Class Teachers.	Collating assessment information.
10. Tools/Artefacts Node.	Concrete Tools.	Circular No 0013/2017.

Note. The whole Activity System was interpreted to understand participants' actions (Engeström, 2001).

Based on study findings, it is questionable whether a Continuum of Support framework that is inclusive and responsive to all pupils, is being supported and encouraged. Participants discussed that there was a strong focus on pupils' academic needs, more so than on social, emotional, physical, sensory and communication difficulties. Connecting pupils with the academic curriculum was a priority for the participants and they ensured that pupils with SEN were respected and valued within the mainstream classroom. Supportive classroom environments were provided to ensure their meaningful inclusion (DES, 2017a). This finding coincided with previous research where the RtI process was implemented to help identify pupils requiring academic support (Clayton et al., 2020; Donovan & Shepherd, 2013; Stuart et al., 2011). By contrast, special education teachers in the Pavri (2010) study implemented academic, social-emotional, and behavioural interventions within the RtI process.

The principle that those with the greatest level of need obtained the greatest levels of support, also proved challenging for participants with the resources currently available to them. There is an inherent need for a more integrated Continuum of Support framework that incorporates initiatives for the academic, behavioural, and social-emotional needs of all pupils. As scientist practitioners, EPs can actively make a contribution to the promotion of such an integrated framework within the Irish education system. Guidelines have been provided in the publication '*Well-Being in Primary Schools*' to further progress the promotion of mental health and well-being in schools using the Continuum of Support framework (DES, 2015). The promotion of well-being for all children in schools is also central to the policy '*Wellbeing Policy Statement and Framework for Practice*' (DES, 2019b).

A lack of consensus emerged amongst participants with regards to determining a pupil's adequate response to intervention, and the impact of ongoing assessments on the teaching and learning of pupils. A lack of adequate professional training and time, an administrative burden, difficulties collating assessment information, long waiting lists and increasing class sizes, were the most cited constraining factors by participants. Previous research also identified such barriers to effective MTSS implementation (Castro-Villarreal et al., 2014; Donovan & Shepherd, 2013; Swanson et al., 2012). One suggestion identified by participants to improve systems and practices, was to coordinate with EPs to reduce the time required to implement supports, monitor pupils progress, and adjust targets if necessary. Clarity was also needed regarding how pupils could move across tiers, mainly 'Classroom Support' and 'School Support'. Whilst there is a greater need to focus on such barriers if education systems are to make a paradigm shift towards inclusion, class teachers and special education teachers must also commit to the principles of inclusive education and consider ways to advance their practice

in this respect (Glazzard, 2011; Woodcock & Woolfson, 2019). Implementation of the Continuum of Support framework requires systemic, widespread changes in order to be effective. In line with Smeets and Roeleveld (2016), it is plausible that the insufficient competencies of participants play a role based on study findings.

3.8.5 Methodological Considerations. The strengths and limitations of the methods adopted within the current study will now be considered to provide an overall context for the findings discussed above (see Table 3.7). These will be considered in depth in the Critical Review (Chapter 4).

Table 3.7

Overview of the Strengths and Limitations of the Study

Strengths
1. A strength of the current study was the adoption of AT as the conceptual framework. This provided the researcher with a theoretical tool that supports qualitative research and offers a holistic and contextual method of discovery (Engeström, 1987; Hashim & Jones, 2007).
2. Additionally, a hybrid approach of inductive and deductive thematic analysis was employed. This ensured that a more complete analysis was conducted and that no important themes were overlooked (Roberts et al., 2019).
3. The employment of a phenomenological methodology, further facilitated the process of gaining an insight into the first-hand experiences and perspectives of the class teachers and special education teachers (Creely, 2016).
Limitations
4. The use of non-probabilistic convenience sampling may be considered a limitation of this study. The representativeness of the convenience sample is questionable, as it impedes the researcher's ability to generalise the findings to a wider population (Etikan et al., 2016). (e.g. generalisability to post-primary schools and to schools that have had training on the Continuum of Support framework).
5. A small sample of class teachers and special education teachers also participated, with an overrepresentation of the former. Nonetheless, Bryman (2012) stipulated that it is difficult to specify minimum sample sizes in qualitative research and that there are ambiguities surrounding what constitutes an optimal sample size. In line with Onwuegbuzie and Collins (2007), the sample size in this study was not that small that it was difficult to achieve data and theoretical saturation, or informational redundancy.
6. Social desirability bias may also have been present in the data collection process due to the use of semi-structured, in-depth interviews. Social desirability is the tendency to present oneself in a way that is perceived as socially acceptable (Bergen & Labonté, 2020). The researcher mitigated such social desirability tendencies by establishing rapport with the participants and clearly explaining the details about the study (Bergen & Labonté, 2020). Participants were then less likely to perceive the encounter as an evaluation of their work (Bergen & Labonté, 2020).

3.9 Conclusions and Implications for Policy, Practice and Future Research

Despite the limitations outlined, the current study provided original insight into the utility of the Continuum of Support framework in the Irish education system. It opens up the conversation on how it supports schools in the identification and monitoring of pupils educational needs, and identifies factors supporting and constraining its implementation. A number of implications for practice, policy and research are outlined below. In line with AT, primary and secondary contradictions were investigated to inform such implications for policy and practice. This highlighted potential areas of change, growth, and development (Engeström, 2011). Adoption of the second-generation AT model, provided the researcher with a valuable framework to better understand their field of study (Hashim & Jones, 2007). Investigating current practice is the first step in bringing about change (Engeström, 2011). Future studies would benefit from adopting third-generation AT to better understand the multiple perspectives of interacting activity systems (Engeström, 2001). This will further help support professional and organisational development (Engeström, 2001). Adoption of third-generation AT as an alternative conceptual framework will be considered in detail in the Critical Review and Impact Statement (Chapter 4).

3.9.1 Implications for Initial Professional Training of EPs. It is essential for trainee EPs to train within interdisciplinary environments during their professional training, to gain experience in potential complementary/collaborative activities within the Irish Education system. This will benefit them professionally and improve educational outcomes for pupils with SEN. It may be facilitated through engaging in collaborative problem-solving sessions and gaining experience in such activities.

3.9.2 Implications for the Practice of Class Teachers/Special Education Teachers. It is recommended that a multi-dimensional response is adopted that recognises the complexity of needs within the Irish education system. Changes are required in the external support provided to schools and in the classroom teaching itself. It is advisable that class teachers and special education teachers obtain further support from EPs in delivering a broad and balanced curriculum, whilst also meeting the needs of diverse learners within their classrooms. Class teachers and special education teachers had specific difficulties with collating assessment information; interpreting assessment results; determining which pupils' had the greatest level of need; determining a pupil's adequate response to intervention; and with knowing when to initiate the next stage of the Continuum of Support framework.

It is plausible that the insufficient competencies of class teachers and special education teachers play a role based on findings. This was particularly relevant at stage one 'Classroom Support', where the class teachers had primary responsibility for the interventions implemented. This stresses the importance of initial teacher training programmes, as well as ongoing professional development opportunities, to help foster the development of class teachers and special education teachers skills in recognising pupils' additional support needs. Ongoing professional development opportunities are advisable and essential for class teachers and special education teachers to address special educational issues effectively within their schools (i.e. application of differentiated approaches).

3.9.3 Implications for the Practice of EPs. One suggestion identified by participants to improve systems and practices, was to coordinate more frequently with qualified EPs to reduce the time needed to implement supports, monitor pupils progression, and adjust targets if necessary. It is advisable that qualified EPs clarify information with class teachers and special education teachers' if gaps in knowledge arise due to the complexity of needs within their schools.

Data from this study highlighted that it is questionable whether the Continuum of Support framework is inclusive and responsive to the needs of all pupils. It is recommended that a more integrated Continuum of Support framework is promoted that incorporates initiatives for the academic, behavioural, and social-emotional needs of all pupils. As scientist practitioners, EPs can actively make a contribution to the promotion of such an integrated framework within the Irish education system.

Data from this study highlighted that class teachers and special education teachers valued working in partnership with EPs. However, they had limited opportunities to engage in collaborative consultations due to the EPs time constraints and long waiting lists. The home and school connection was strong, whilst the home, school and practitioner connection was strained. It is recommended that EPs set aside protected time during school visits to get to know and meet the parents, class teachers, and special education teachers of pupils on their caseloads. This will support and encourage the development of positive working relationships.

3.9.4 Implications for Policy. It is recommended that the Irish education system strengthen their efforts and ensure that pupils can express their views in school and educational policies. There is also a need for EPs to work and to measure progress towards such aspirations.

The concept of 'pupil voice' is defined by the pupil engaging in dialogue and discussion about their education (Fleming, 2015).

Findings indicated that participants were implementing policies and practices that they did not fully understand or accept. It is recommended that input is provided to schools by EPs, to promote consistency in how support should be provided to pupils with SEN. There is a need for EPs to become co-constructors within the Continuum of Support framework. Without their support, the current gap between policy and practice will still remain. The teacher voice in the current study emphasised the need to slow down and provide further support, before moving forward with inclusive policies and practices. Schools require further support and guidance from EPs, particularly with implementing the New Allocation Model.

3.9.5 Implications for Future Research on the Continuum of Support Framework.

This was the first study in Ireland to explore specifically the utility of the Continuum of Support framework with the results providing empirical insight into an area that was previously underexplored. Future research may employ alternative methods of data collection and analysis to further delineate the utility of the Continuum of Support framework. Whilst the use of online qualitative surveys was rejected in the current study, due to concerns relating to multiple and careless responding, and failure to obtain quality data, it may be beneficial to adopt this form of data collection in future studies (Roberts & Allen, 2015). They are efficient, convenient and can access a large, geographically distributed population. A focus group was initially considered with this study, but was subsequently dismissed due to the ethical and logistical concerns with the current COVID-19 pandemic.

It is recommended that future research is conducted to ascertain the perspectives of post-primary teachers. The current study has initiated the conversation as to how it supports mainstream primary schools in the identification and monitoring of pupils educational needs. There is a difference between both settings in the organisation of teaching and resources. The findings of the current research may also be presented at team meetings within the NEPS, to stimulate dialogue amongst both trainee and qualified EPs. Third Generation Activity Theory may be employed as an alternative conceptual framework. 'Developmental Work Research' workshops to support professional and organisational development may be employed.

Chapter 4 Critical Review and Impact Statement

4.1 Overview of Chapter

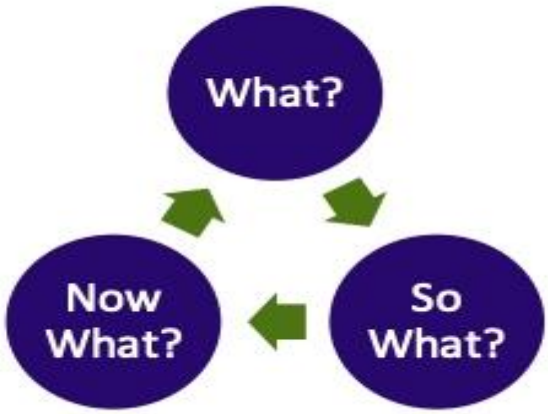
This chapter will provide a critical review of the research process, design and methodology adopted within the current research. It will start with a reflection on the research process using the Rolfe et al. (2001) reflective model. This will be followed by a detailed rationale for the epistemological position, research design and methodologies employed. Strengths and limitations of the current study will be considered, along with a reflection on ethical dilemmas faced while conducting the research. This chapter will outline implications for understanding and knowledge of the research area, policy, practice and future research. The final component of this thesis entails an Impact Statement that considers the benefits of this study both inside and outside of academia with particular reference to the role of the EP.

4.2 Reflections on the Research Process

My experiences of undertaking this doctoral research will now be explored using the Rolfe et al. (2001) reflective model. This model is based on three key questions: 'What?', 'So What?', and 'Now What?' (Rolfe et al., 2001) (see Figure 4.1). The first stage of this reflective model is essentially a description of what happened, while stage two considers why the experience described was significant (Rolfe et al., 2001). The final stage 'Now What?', considers the next steps that I will personally take to improve my practice (Rolfe et al., 2001).

Figure 4.1

The Rolfe et al. (2001) Reflective Framework



On commencing the Doctorate in Educational and Child Psychology and throughout my professional training, my interest in the areas of inclusive education and educational assessment and evaluation steadily grew. It started with a guest lecturer David Mitchell, an Adjunct Professor in the College of Education, University of Canterbury, New Zealand, and a leading expert on special and inclusive education. He discussed evidence-based strategies that can be put into practice in the classroom by teachers, to support pupils with SEN. I then engaged with the relevant literature to inform my practice as an EP in training. It was during my professional training with the NEPS, that my interest in assessment models for addressing pupil's special educational needs grew. During my professional training course, I was introduced to a new practice-based assessment model, the Assessment for Intervention (AFI) model (Pameijer, 2017). The AFI model actively includes teachers, parents and the voice of the child in the assessment process (Pameijer, 2017). It is a model of best practice, commonly used in the Netherlands, that follows a systematic process (Pameijer, 2017). Nonetheless, conducting research in this area was challenging. I initially aimed to design and provide CPD training sessions to mainstream primary schools on the AFI model. It is goal-directed and focuses on the needs of the teachers and parents, as they are essential in achieving educational goals for the pupil (Pameijer, 2017). However, due to challenges incurred in recruiting schools resulting from the coronavirus pandemic and the nationwide school closures, this research study could not proceed. Saberi (2020) further stated that there is a need to continue with research activities during the COVID-19 pandemic by adopting remote research methodologies.

Following this, I returned to the literature and focused on conducting an evaluation of the relatively new Continuum of Support framework instituted by the DES (NEPS, 2007, 2010a). This research was deemed to be timely, beneficial and a viable study in itself given the current focus on inclusive education in Ireland (NEPS, 2007, 2010a). Recent changes had also occurred within the Irish education system with the introduction of the New Allocation Model (DES, 2017a, 2017b). There had been a move away from a diagnostic medical approach to a more equitable needs-based system, where opportunities for early intervention are supported and the unnecessary labelling of pupils is removed (NCSE, 2014; DES, 2017a, 2017b). In addition, this new ecological approach fosters a more inclusive educational system and is now aligned with the NEPS model of service delivery (NCSE, 2014; DES, 2017a, 2017b). It was now timely to explore this move away from a diagnostic medical approach to a new ecological approach. During the course of this research process, I was intrigued to learn how committed class teachers and special education teachers were to supporting pupils with SEN within their

schools. The strength of collaboration amongst participants was also an unexpected but valuable finding. As a result of undertaking this research, I am now more aware of factors that support and constrain class teachers and special education teachers activities within the Continuum of Support framework. Undertaking this professional doctorate has been an invaluable learning experience that has enabled me to immerse myself and undertake research on the current topic (Fenge, 2009). It is located within, and has direct relevance for my everyday world of practice, and has supported my development as a research professional (Fenge, 2009).

4.3 Reflections on the Epistemological Position

4.3.1 Strengths of the Constructivist Epistemology. The current research was positioned within the constructivist paradigm. A notable strength of the constructivist paradigm is that it recognises that knowledge can be constructed individually by a person, or constructed and shared within a group (Barger et al., 2018). It asserts that no single objective truth exists and adheres to a relativist position assuming that multiple, equally valid realities exist (Barger et al., 2018; Mertens, 2015; Ponterotto, 2005). Deeper meaning is also uncovered in the interaction between the researcher and their participants, with this interactive dialogue recognised as a distinguishing characteristic of constructivism (Ponterotto, 2005). Thus, the researcher was essentially an active agent within the current research process to ensure that the participants' perspectives were understood (Lodico et al., 2010; Ponterotto, 2005). Findings were jointly created by the researcher and her participants during their interaction and interpretation (Ponterotto, 2005).

This research was viewed using a social constructivist lens, whereby there was a specific focus on the knowledge created in everyday life (Barger et al., 2018; Becerra & Castorina, 2018). The goal of social constructionism is to understand the lived experiences of the participants (Ponterotto, 2005). An additional strength of the constructivist paradigm is that the researcher is actively involved and it is considered a robust learning paradigm (Nugroho & Wulandari, 2017). The current research acknowledged that the class teachers and special education teachers held different constructs on the Continuum of Support framework, based on their own individual experiences of implementing it within their schools (Lodico et al., 2010). An additional strength of adopting a social constructivist lens is that it aligns with the conceptual framework adopted within this study, Activity Theory (Burr, 2015; Ültanir, 2012).

4.3.2 Critique of the Constructivist Epistemology. The constructivist researcher adopts a qualitative approach with their engagement in the research process considered an asset of the study (Ataro, 2020). It affords them flexibility with the research design (Ataro, 2020). Nonetheless, this paradigm is not without its critiques. A notable criticism of the constructivist approach is that the definition of constructivism varies based on one's position and perspective (Ültanir, 2012; Young & Collin, 2004). There is no one universal definition of the constructivist approach (Ültanir, 2012). Thus, the researcher ensured that the basic assumptions guiding this paradigm were explicitly outlined in the introduction (see section 1.6) and in the methodology section (see section 3.5.2).

An additional critique is that the constructivist researcher rejects the idea that there is an objective reality (Mertens, 2005). Rather, their goal is to understand the multiple socially constructed realities (Kivunja & Kuyini, 2017; Mertens, 2005). The implications of having multiple realities within research, is that the research questions will develop and change as the study progresses (Mertens, 2015). With multiple realities, the research questions cannot be definitely established prior to the study commencing and a variety of perspectives are required (Mertens, 2015). The constructivist paradigm is further criticised as it is argued that it has interbred with other paradigms, such as the transformative paradigm (Kivunja & Kuyini, 2017; Mertens, 2015). This was accounted for in the current study as the researcher specified that she was identifying as a constructivist researcher, whilst also recognising the influences of other paradigms within the research (Mertens, 2015).

4.3.3 Alternative Epistemological Position. An alternative epistemological position that may have been adopted by the researcher, is the critical realist paradigm. It is a relatively new research paradigm with contrasting views to those of the constructivist paradigm (Haigh et al., 2019). The critical realist argues that research should not be replicated unless the findings can be generalised across research methods, samples and populations (Mir & Watson, 2001). A notable strength of the critical realist is that they seek to understand and explain the complexity of the social world (Haigh et al., 2019). They seek to capture multi-disciplinary, interdisciplinary and transdisciplinary perspectives, and avoid being trapped within a single disciplinary view (Haigh et al., 2019). There is no preference for a particular method within the critical realist paradigm with the researcher open to a range of methodologies, but mixed methods is encouraged (Sorrell, 2018; Wynn & Williams, 2012).

Critical realists argue that reality is socially constructed but also proclaim that reality is objective (Chan, 2015). A criticism of the critical realist perspective is that it states that our realities are biased and that the quality of our knowledge is theory-dependent (Aastrup & Halldórsson, 2008; Sorrell, 2018). The critical realist paradigm was subsequently rejected as an epistemological position, as it states that individuals only perceive a portion of their reality, and that such knowledge of reality may be fallible (Wynn & Williams, 2012). Thus, the constructivist paradigm was chosen as the researcher's epistemological position as it asserts that multiple realities are possible (Sorrell, 2018). It recognised that the participants constructed their understanding of the world by experiencing and reflecting on such experiences (Bada & Olusegun, 2015). They were essentially active creators of their own knowledge and explored and assessed what they already knew (Bada & Olusegun, 2015).

4.4 Reflections on the Conceptual Framework

4.4.1 Strengths of Adopting Activity Theory. Second-Generation Activity Theory was adopted as a conceptual framework within the current research study (Engeström, 1987). It is a holistically rich framework that has been utilised in areas of research such as healthcare, education, and for exploring the professional identity of EPs within multi-agency work (Gaskell & Leadbetter, 2009; Hashim & Jones, 2007; Karasavvidis, 2009; Roth et al., 2012). Thus, the use of AT in the current research was deemed appropriate as it aligns with previous investigative traditions. Qualitative methodologies are advised when adopting AT to provide a rich data set (Frambach et al., 2014; Hashim & Jones, 2007).

One of the five principles pertaining to AT is that the main concept under analysis is a "collective, artifact-mediated and object-oriented activity system", which is related to other activity systems (Engeström, 2001, p. 136). Specifically, individual and group actions are only fully understood by the researcher, when they interpret the entire activity system (Engeström, 2001; Frambach et al., 2014). A notable strength of utilising AT is that it provided the researcher with a theoretical framework for examining contradictions within and between components of the Continuum of Support activity system (Karasavvidis, 2009). It afforded the researcher the opportunity to conceptualise what works, and what does not work, within the Continuum of Support framework (Karasavvidis, 2009). The knowledge gained from identifying such tensions, has identified ways to improve practice within the Irish education system (see Section 3.9). Participants were also actively, rather than passively involved in this process of developing and enacting change (Engeström, 2001). Thus, the principles of

identifying contradictions and the expansive transformations of such contradictions, are two key strengths of adopting AT within the current research (Frambach et al., 2014).

Another principle pertaining to AT is that activity systems are typically multi-voiced with multiple viewpoints (Frambach et al., 2014). The activity system was comprised of a group of interacting individuals, class teachers and special education teachers, that expressed different ideas and views (Frambach et al., 2014). Adopting AT afforded the researcher the opportunity to examine the participants work-based activities within the wider social, cultural, and historical contexts (Gaskell & Leadbetter, 2009). Examples of such contexts can include background knowledge, the availability of tools and personal bias (Koszalka & Wu, 2004). An additional strength of adopting AT is that the researcher could examine the impact of external factors on the participants practice, and how this then impacted their perspectives of themselves in supporting pupils with SEN (Gaskell & Leadbetter, 2009). For instance, the DES stipulations regarding the inclusion of pupils with SEN in mainstream primary schools.

4.4.2 Critique of Adopting Activity Theory. A critique of adopting AT is that it is argued that it is not a unified theory (Holzman, 2006). There is no unified perspective and there are multiple definitions of this theoretical perspective within the literature (Holzman, 2006; Leadbetter et al., 2007). In line with Edwards (2017), it is outside the scope of the current research to explore each definition. Nonetheless, the researcher accounted for this by explicitly stating that she was drawing her ideas from AT, as interpreted by Engeström (1987) (Edwards, 2017).

It is also argued that given that there are multiple perspectives within AT, it is difficult to position it within one epistemological view (Edwards, 2017). Previous research has positioned it within the transformative paradigm (Durbin, 2009) and the critical realist paradigm (Wheelahan, 2007). Murphy and Rodriguez-Manzanares (2008) further stated that a limitation of AT is that when complex concepts and processes are involved, it does not specify what specific methods and procedures are to be used.

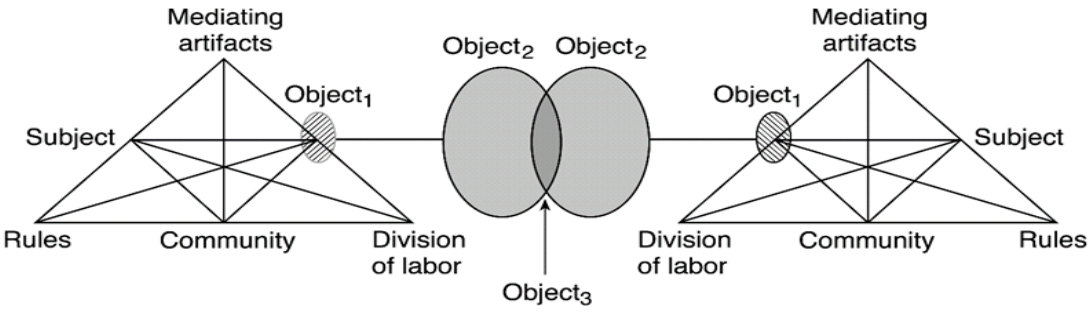
4.4.3 Alternative Conceptual Frameworks. A range of alternative conceptual frameworks were considered when deciding upon the conceptual framework in the current research. These frameworks included third-generation AT (Engeström, 1999) and Appreciative Inquiry (AI), a form of transformational inquiry (Cooperrider et al., 2003). Both alternative conceptual frameworks will now be discussed in turn below.

4.4.3.1 Third-Generation AT. Third-generation AT, or cultural-historical activity theory (CHAT), is an expansion on the conceptual framework adopted within the current study (see Figure 4.2). With third-generation AT, the focus is on modelling organizations-in-society rather than individuals-in-society (Spinuzzi, 2020). It is a diagnostic rather than predictive process (Spinuzzi, 2020). With second-generation AT, the unit of analysis is the activity whilst in third-generation AT, the unit of analysis are two interacting systems (Murphy & Rodríguez-Manzanares, 2008b; Spinuzzi, 2020). Essentially, there is a shift in focus from individual activities to transforming activities within an organisation (Spinuzzi, 2020).

As mentioned, within third-generation AT two interacting activity systems are the focus of the analysis with them operating with different, and sometimes conflicting objects (Joshi et al., 2007; Murphy & Rodríguez-Manzanares, 2008b). A new object is then negotiated between the two different interacting groups (Joshi et al., 2007). This can be facilitated through 'Developmental Work Research' workshops to reconceptualise the object of the activity (Sannino et al., 2009). Specifically, third-generation AT focuses on facilitating professional and organisational development (Sannino et al., 2009). Whilst it was acknowledged that third-generation AT may have been utilised in the current study, the researcher aimed to describe contradictions within and between components of the Continuum of Support activity system, rather than facilitating professional and organisational development (Sannino et al., 2009).

Figure 4.2

Third-Generation Activity Theory Model (Engeström, 2001)



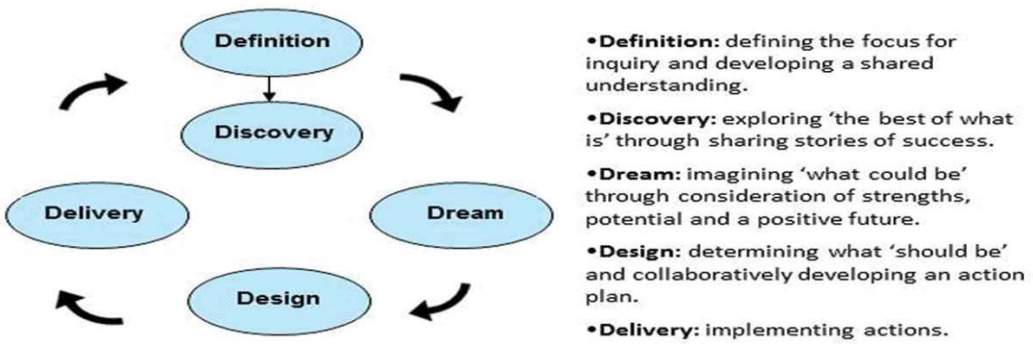
4.4.3.2 Appreciative Inquiry (AI). An additional conceptual framework considered for the current study was AI, a holistic, systematic, and collaborative methodology (Waters & White, 2015). AI places a unique focus on both individual and organisational strengths, rather than their weaknesses, and it has been widely used in general education (Sandars & Eaton, 2017; Waters & White, 2015). It is a positive, strengths-based approach that involves working

through the 5-D cycle: Definition, Discovery, Dream, Design, and Destiny (Sandars & Eaton, 2017; Waters & White, 2015) (see Figure 4.3). The definition phase looks at the focus of inquiry, while the discovery phase identifies the processes that are working well (Priest et al., 2013; Sandars & Eaton, 2017). During stage three dream, the participants are encouraged to envision what the current situation could be like and to create a positive image of the future (Priest et al., 2013; Sandars & Eaton, 2017). Stage four design, involves choosing the design and processes that will help bring the dream to life, to support the organisations development (Priest et al., 2013). Finally, the destiny phase involves the implementation of the proposed design (Sandars & Eaton, 2017).

An assumption of AI is that within every organisation, something works (Hammond, 2013). Change is then managed by identifying what works within an organisation, and doing more of what works (Hammond, 2013). An advantage of adopting an AI theoretical research perspective over second-generation AT, is that it is an asset-based research method that recognises that organisations are comprised of individuals that are continuously creating and recreating (Calabrese, 2014). Nonetheless, AI was subsequently rejected as a potential conceptual framework as it focuses on an organisations' strengths, rather than its weaknesses (Dewar & MacBride, 2017). Participants are also empowered and given more autonomy in choosing the topic under investigation (Waters & White, 2015). Thus, AI was deemed inappropriate for the current study given the possibility that important topics may not be addressed (Waters & White, 2015). Grant and Humphries (2006) further stated that critiques of AI are rare but can be found. A notable critique of AI is that it is excessively focused on the positives (Grant & Humphries, 2006). An exploration of both the negative and positive aspects of practice within the Continuum of Support framework, is necessary to inform implications for policy, practice and future research (Grant & Humphries, 2006).

Figure 4.3

The 5-D Cycle of Appreciative Inquiry (Morris & Atkinson, 2018)



4.5 Reflections on the Data Collection Methods

4.5.1 Strengths of the Data Collection Methods Employed. Semi-structured, in-depth interviews were employed as the primary data collection method to address the researcher's respective research questions. Participants also completed a demographic questionnaire to elicit information about their backgrounds, levels of education, current roles and years of experience. Mertens (2015) labelled it as 'background information' to identify the personal characteristics of the participants.

Firstly, adopting semi-structured interviews as the data collection method, provided the researcher with flexibility to probe the research participants and ask unplanned questions (Braun & Clarke, 2013). As the research was conducted during the coronavirus pandemic, the semi-structured interviews were conducted virtually via Zoom. Thus, research activity was maintained whilst ensuring that participants were safe and engaged (Omary et al., 2020). Brown and Danaher (2019) also stated that regardless of the medium employed, face-to-face or e-interviewing, the researcher must ensure that they build rapport with the participants. While not replacing the face-to-face interviews, communication still remained effective during the e-interviews (Omary et al., 2020).

Additional notable strengths of adopting semi-structured interviews, are that the subjective viewpoints of the participants could be explored by the researcher (Evans, 2018). In-depth accounts of their perspectives were obtained and the use of semi-structured interviews provided the researcher with a powerful, flexible tool for capturing the voices of participants (Evans, 2018; Rabionet, 2011). The generation of rich and detailed, useful data may not have been as forthcoming in the context of an online survey or focus group (Braun & Clarke, 2013). While online surveys are frequently used in educational research, risks of inadequate data being obtained are prominent which may result in inaccurate conclusions being drawn (Roberts & Allen, 2015). As such, it would be questionable if the research were ethically defensible (Roberts & Allen, 2015). Rich and detailed data may also not have been as forthcoming in the context of a focus group, due to fears of participants voices being silenced resulting from possible conflicting viewpoints from fellow participants (Sim & Waterfield, 2019).

4.5.2 Critique of the Data Collection Methods Employed. Semi-structured interviews have both their strengths and weaknesses, like any other data collection method (Diefenbach, 2009). Notable critiques of utilising semi-structured interviews, are that they are time consuming for both the researcher and participants (Braun & Clarke, 2013). Unlike self-administered questionnaires, there may have been an increase in socially desirable answers and

unwanted interviewer affect (McIntosh & Morse, 2015). The virtual presence of the researcher may have impacted the participants and their responses (McIntosh & Morse, 2015). Semi-structured interviews are also labour intensive (Braun & Clarke, 2013; McIntosh & Morse, 2015). Regarding the current study, additional time was required for preparing, setting up, conducting, transcribing, and analysing the qualitative data from the interviews (Adams, 2015).

An additional critique of semi-structured interviews is the concept of 'double attention', as conceptualised by Opdenakker (2006) and Wengraf (2001). Specifically, this is where the interviewer must listen to the participants responses, whilst also ensuring that all questions are being answered with the depth and detail required (Opdenakker, 2006; Wengraf, 2001). This was accounted for in the current study as the semi-structured interviews were tape recorded, with the permission of the participants, and notes were also taken during the interviews (Opdenakker, 2006). Disadvantages associated with tape recording is the arduous task of completing transcriptions of the interview recordings (Adams, 2015; Opdenakker, 2006). The researcher further ensured that she listened attentively to the participants to obtain the data that they required (Wengraf, 2001).

A further limitation of the data collection methods employed, is that semi-structured interviews and a demographic questionnaire, were the only methods utilised in the current study. Thus, a shortcoming of this study is that there is a threat to the internal validity of the data obtained, or the truthfulness of the data (Diefenbach, 2009). In line with Farrell et al. (2006), the internal validity may have been increased by conducting site visits to maximise opportunities to collect multiple sources of data. Nonetheless, due to the time constraints of the DECPsy programme and the challenges that manifested with conducting educational research within schools during a global pandemic, this was not possible (Superfine, 2020). While multiple sources were not employed, multiple perspectives were obtained on the utility of the Continuum of Support framework (Diefenbach, 2009).

4.6 Reflections on the Research Sample

4.6.1 Strengths of the Sampling Approach Adopted. Class teachers and special education teachers working fulltime in mainstream primary schools agreed to participate in the current research. The researcher initially aimed to employ non-probabilistic purposive sampling, but this recruitment process was challenging due to nationwide school closures. Thus, non-probabilistic convenience sampling was adopted to recruit participants which resulted in a sample being obtained from three different provinces; Connacht, Leinster and Munster.

The strengths of adopting a convenience sampling approach are that it is straightforward, inexpensive, less time consuming, and it is also commonly used in qualitative research (Etikan et al., 2016; Oppong, 2013; Taherdoost, 2016). Within convenience sampling, participants are selected based on their availability and accessibility (Elfil & Negida, 2017). The recruitment of class teachers and special education teachers was a strength of the current study, as they collaborate with one another to support pupils with SEN across this multi-tiered system of support. Their perceptions are also an essential component of any school reform effort, with research on the change process concluding that implementation of such reform, commences at the teacher level (Hall & Hord, 2006; Greenfield et al., 2010). In order to improve educational outcomes for pupils, change is required in their teaching and learning (Connell & Klem, 2000). In line with AT (Engeström, 1999; Goncalves et al., 2013), the researcher investigated current practice and analysed primary and secondary contradictions, as the first step in bringing about change.

4.6.2 Critique of the Sampling Approach Adopted. As previously discussed in section 3.8.5, the process of convenience sampling may be considered a limitation of the current study. While convenience samples are easier to execute, they can lack clear generalizability (Bryman, 2012; Jager et al., 2017). An additional limitation is that the data was gathered from a relatively small sample size. Eight class teachers and three special education teachers took part in the semi-structured interviews. Thus, there are concerns over the generalisability of the data from the cohort, as it may be limited (Trotter, 2012). Whilst the data gathered was useful in providing an overview of the utility of the Continuum of Support framework, the sample is not considered a representative sample of class teachers and special education teachers throughout Ireland (Taherdoost, 2016). Nonetheless, the sample obtained was considered relatively representative (see Table 3.1). Participants of both genders were included, that ranged in years of experience working in the field of education and that held varying qualification levels (Bryman, 2012). As previously mentioned, the adoption of a nationwide survey may have established a clearer picture. Nonetheless, concerns were raised by the researcher that quality data might not have been obtained, subsequently increasing the possibility of inaccurate conclusions being drawn (Roberts & Allen, 2015).

4.7 Reflections on Methods of Data Analysis

4.7.1 Strengths of the Data Analysis Methods Employed. A hybrid approach of inductive and deductive thematic analysis was employed in the current study (Fereday & Muir-

Cochrane, 2006; Xu & Zammit, 2020). A notable strength of adopting inductive and deductive coding, is that rather than relying on the frequency of codes, a balanced and comprehensive view of the data is provided (Xu & Zammit, 2020).

An inductive or 'bottom-up' approach is driven by what is in the data, with the themes emerging from the discussions with the participants (Clarke & Braun, 2017; Fereday & Muir-Cochrane, 2006; Xu & Zammit, 2020). This stage involved extracting themes from the raw data by employing the six-step recursive process outlined by Braun and Clarke (2006) for thematic analysis (see Appendix W). A notable strength of adopting an inductive approach, is that the researcher did not make any prior assumptions of what the important analytical dimensions would be (Patton, 2002). There was no pre-existing coding frame (Patton, 2002). Additionally, within the current study there were eleven interview transcripts to compare and contrast. Adopting an inductive approach ensured that individual cases were not pigeon holed when both writing up, and gaining a deeper understanding of each individual transcript (Patton, 2002).

By contrast, a deductive or 'top-down' approach is theory-driven (Braun & Clarke, 2006; Patton, 2002). This stage incorporated the psychological theory guiding the research, second-generation AT (Engeström, 1987). Combining both approaches allowed for a more complete analysis and ensured that no important themes were overlooked (Roberts et al., 2019). Nonetheless, Braun and Clarke (2006) stated that the deductive approach is more analyst-driven which may lead to a reduction in the richness of the data. This was accounted for in the current study as a detailed description of the data applicable to each node of the Continuum of Support activity system was maintained (Braun & Clarke, 2006). Additionally, the inductive themes were mapped onto the nodes of second-generation AT (Braun & Clarke, 2006).

The researcher further utilised manual techniques over the NVivo data analysis software package, to support the data analysis process. There is a great debate in the research literature relating to if the NVivo software is just a tool or if it drives the research, subsequently distancing the researcher from the data (Crowley et al., 2002; Welsh, 2002). In line with Leech and Onwuegbuzie (2011), the researcher was the main tool for analysis in the current study. NVivo is also considered less useful in terms of searching through the thematic ideas to gain a deeper understanding of the data (Welsh, 2002). Whilst the use of NVivo can add rigour to the analysis process and serve as a tool for transparency, the use of manual techniques enabled the researcher to get to know the data more intimately and ensured that the data was more thoroughly interrogated (Crowley et al., 2002; Welsh, 2002).

4.7.2 Critique of the Data Analysis Methods Employed. Within the current study, the data was collected and analysed by the researcher as she was not part of a wider research team. The researcher was the key research instrument and played an integral role in the research process, and the overall final product (Chenail, 2011; Galdas, 2017). Thus, the researcher ensured that they minimised bias, which is commonly understood as any influence that may distort the results of the study (Galdas, 2017).

Firstly, researcher bias was accounted for as an independent coder was employed to ensure internal reliability within the analysis process (McDonald et al., 2019). A sample of the data was coded by an independent coder who had qualitative coding experience, specialised knowledge of the research topic, and no previous experience with the research (Nili et al., 2020). Disagreements in codes assigned to the research were resolved through discussion, and amended where necessary (Hammer & Berland, 2014). During supervision, both data analysis and research findings were discussed and refined to further minimize researcher bias (Nowell et al., 2017).

First and second-level member checks were also conducted to enhance the accuracy, credibility and trustworthiness of the results, through involving participants in the interpretation of data (Birt et al., 2016). Member checking ensured that the researcher established the fit between the participants' perspectives, and the researchers representation of them (Nowell et al., 2017). An audit trail, reflexive journal and field notes were maintained to enhance the confirmability and trustworthiness of the research findings (Carcary, 2009; Phillippi & Lauderdale, 2018).

4.8 Ethical Considerations

As previously outlined in section 3.5.7, ethical approval was received for this research study from the Mary Immaculate College Research Ethics Committee (MIREC) in April 2020. A range of additional procedures were also adopted in line with the Psychological Society of Ireland (PSI) Code of Professional Ethics (2019); the British Psychological Society (BPS) Code of Ethics and Conduct (2018); and the BPS Code of Human Research Ethics (2014). The researcher was sensitive to conducting the current study in an ethically sound manner.

Firstly, in line with the PSI Code of Professional Ethics (2019), the researcher ensured that she treated as confidential all information obtained during the course of this research. All records that the researcher had control over were stored, handled, transferred and disposed of, in a manner that ensured the privacy of participants (PSI, 2019). This is in accordance with the

principle of respect for the rights and dignity of the person (PSI, 2019). In order to uphold the principle of integrity within the PSI Code of Professional Ethics (2019), the researcher was honest and accurate about her research findings, with all participants informed of how the research outcomes would be used. When writing up the results, and in line with the PSI Code of Professional Ethics (2019) and the BPS Code of Human Research Ethics (2014), high level of care was taken to ensure the privacy of the research participants. All data gathered was anonymised, and the quotations were not traceable to any individual class teacher or special education teacher (BPS, 2014, 2018; PSI, 2019). The names of specific schools were also removed by the researcher from the transcripts (BPS, 2014, 2018; PSI, 2019).

The gaining of consent from all participants was an aspect of the research process that required careful consideration and this was reflected in the ethics application. In line with recommendations from the MIREC, and in light of procedural changes that arose from the coronavirus pandemic, verbal consent was obtained at the start of each virtual semi-structured interview. Specifically, the consent form was read aloud by the researcher and each statement responded to by the participants. The researcher was at all times committed to ethical practice during the course of this research study (PSI, 2019).

4.9 Implications for Policy, Practice and Future Research

4.9.1 Implications for Understanding of the Research Topic. The current research study was small-scale in nature and the researcher included an adequate delineation of its limitations, as per Price and Murnan (2004). Tentative recommendations and implications for policy, practice and future research, can be drawn from the research findings. Additionally, preliminary findings of the current study were presented at the PSI's annual virtual conference in November 2020. Before the end of the 2020/2021 academic year, the researcher also intends to present the findings from the current research to three trainee educational and child psychologist cohorts at Mary Immaculate College. Staff of the DECPsy programme will also be in attendance.

The current study collected empirical data to explore class teachers and special education teachers perspectives on the utility of the Continuum of Support framework. This was conducted in the Irish primary school context where the research base is already limited, as was demonstrated in the systematic review at the beginning of the study. Thus, this research hopes to have filled this research gap. It further delineated the supporting and constraining factors that contribute to how roles and responsibilities are shared between class teachers, special education teachers and EPs, when implementing the Continuum of Support framework

to identify and support pupils with SEN. The exploration of such perspectives will help inform the evolving role of the EP.

4.9.2 Implications for Policy. Findings from the current study highlighted potential barriers to implementing existing policy frameworks, relating to the identification and monitoring of pupils educational needs. As previously outlined in section 3.8 and section 3.9, a key implication for policy development is to include all relevant stakeholders, parents, teachers, practitioners and children, in the development and implementation of inclusive policies and practices. This is in line with the recommendations of both the '*Better Outcomes, Brighter Futures*' and '*Aistear*' policy frameworks (DCYA, 2014; NCCA, 2009). As previously discussed, the participants voice in the current study emphasised the need to slow down and provide increased support on the New Allocation Model, before moving forward with inclusive policies and practices (DES, 2017a). Schools are engaging with the Continuum of Support framework but require further support, guidance and CPD from EPs, with implementing the New Allocation Model. A key tension that emerged related to the availability of external support services to schools and families. Without the support from EPs, the current gap between policy and practice will still remain. There is a need for EPs to become co-constructors within the Continuum of Support framework.

4.9.3 Implications for Practice. Primary and secondary contradictions were explored both within and between nodes of the activity system (Karasavvidis, 2009). The exploration of contradictions provided the researcher with a tool to examine the reconfiguration of practice (Karasavvidis, 2009). Contradictions are important as they highlight areas of disturbance that can result in transformations within the activity system (Murphy & Rodriguez-Manzanares, 2008a). A number of implications for practice emerged relating to the roles of the class teacher, special education teacher and EP, as previously outlined in section 3.9. It is possible that the insufficient competencies of class teachers and special education teachers play a role based on findings. Specifically, high levels of competence amongst class teachers and special education teachers is associated with positive attitudes, that can subsequently foster pupil's learning (Pit-ten Cate et al., 2018). Ongoing professional development opportunities are therefore recommended for class teachers and special education teachers to address special educational issues effectively within their classrooms, as educators that feel ill-prepared may negatively impact the educational pathways for pupils with SEN (Pit-ten Cate et al., 2018).

A prominent theme that emerged in the current study related to developing and maintaining positive working relationships with EPs. This will act as a facilitator to activities when implementing the Continuum of Support framework, to support and monitor pupils with SEN. Certain tension was highlighted in the findings regarding participants limited opportunities to engage in collaborative consultations with EPs, due to their time constraints during school visits and long waiting lists. Participants required more frequent coordination with EPs to reduce the time required to implement supports, monitor pupils progress, and adjust targets if necessary. EPs were predominantly perceived by participants as working in the traditional role of conducting assessments of individual pupils. Thus, a multi-dimensional response is required and it is advisable that class teachers and special education teachers clarify information with EPs if gaps in knowledge arise, due to the complexity of needs within their classrooms. It is recommended that EPs set aside protected time during school visits to get to know and meet the parents, class teachers, and special education teachers of pupils on their caseloads. This will support and encourage the development of positive working relationships.

An additional constraining factor to supporting pupils with SEN within the Irish Education system, is that it is questionable whether the Continuum of Support framework is responsive to the needs of all pupils. It is recommended that a more integrated Continuum of Support framework is promoted that incorporates initiatives for the academic, behavioural, and social-emotional needs of all pupils. As scientist practitioners, EPs can actively make a contribution to the promotion of such an integrated framework within the Irish education system.

4.9.4 Implications for Research. Future research is warranted to gain the perspectives of post-primary teachers on the Continuum of Support framework, within the Irish education system. The Continuum of Support for post-primary schools integrates learning, social, emotional, and behavioural difficulties into one document, in contrast with the two documents implemented for the NEPS primary Continuum of Support (NEPS, 2007, 2010a, 2010b). The current research explored the perspectives of class teachers and special education teachers working fulltime in mainstream primary schools. In line with the '*Better Outcomes, Brighter Futures*' national policy framework, there is a need for research in Ireland to focus on early intervention initiatives to ensure the provision of high standard early years services and education (DCYA, 2014). This will help address early indicators of potential problems, subsequently promoting more positive outcomes for children and young people (DCYA, 2014). The current research has opened up the conversation as to how it supports class teachers and

special education teachers in mainstream primary schools. As there is a difference between primary and post-primary schools in the organisation of teaching and resources, it would be worthwhile to gain the perspectives of post-primary teachers on the utility of the Continuum of Support framework.

Future research may also employ alternative methods of data collection. Whilst focus groups were rejected within the current study in light of the COVID-19 pandemic and participants being geographically dispersed, future research may adopt this method of data collection to incorporate the perspectives of different professionals (Braun & Clarke, 2013). Nonetheless, focus groups are difficult to manage and a skilled moderator would be required to facilitate and manage the focus groups, should potential conflicts emerge between participants (Doria et al., 2018). The findings of the current research may also be presented at team meetings within the NEPS, to stimulate dialogue amongst both trainee and qualified EPs. As previously discussed in section 4.4.3, Third Generation AT may be employed as an alternative conceptual framework to focus on transforming activities within an organisation (Spinuzzi, 2020). 'Developmental Work Research' workshops may be utilised to support professional and organisational development (Spinuzzi, 2020).

4.10 Chapter Conclusion

Engaging in the current research study as part of the DECPsy programme and during the COVID-19 global pandemic, was not without its challenges. It led me to re-think my approach to the research, with the social distancing measures impacting my ability to conduct in-person qualitative research and access the population under study (Howlett, 2021). Nonetheless, digital communication platforms enabled me to continue on with the current study from a distance (Howlett, 2021). Engaging in research on the current topic will be invaluable in terms of enabling me to work with schools, parents, children and other external professionals, in my future role as an EP (Fenge, 2009). It enabled me to develop the capacity and capability to undertake research that will have a direct impact on my future development as a practitioner, subsequently affording me greater levels of self-confidence as both a practitioner and researcher (Fenge, 2009). I now have a greater understanding of the challenges faced by mainstream primary schools in the identification and monitoring of pupils educational needs, whilst implementing the Continuum of Support framework. Engaging in the current research study has developed my skills as a researcher, in addition to my reflective skills (Fenge, 2009).

4.11 Impact Statement

A notable strength of this research study is that it is one of the first studies to specifically explore the utility of the Continuum of Support framework in mainstream primary schools in Ireland. The results provide empirical insight into an area that was previously underexplored and have opened up the conversation as to how this framework supports schools in the identification and monitoring of pupils' educational needs. Replication of the study across different settings will further enhance our understanding of the utility of the Continuum of Support framework, by examining the generalisability of findings. Future research may employ alternative methods of data collection and analysis or ascertain the perspectives of post-primary teachers.

Additionally, adoption of 'Second-Generation Activity Theory' (Engeström, 1987) as a conceptual framework, afforded the researcher the opportunity to examine the impact of external factors on the class teachers and special education teachers practice (Gaskell & Leadbetter, 2009). It looked at how this then impacted how they perceive themselves, when they provide support to pupils with SEN (Gaskell & Leadbetter, 2009). It also provided the researcher with a theoretical framework for examining contradictions within and between components of the Continuum of Support activity system (Karasavvidis, 2009). The knowledge gained from identifying such contradictions, subsequently informed implications for policy, practice and research, with participants actively involved in this process of developing and enacting change (Engeström, 2001; Karasavvidis, 2009).

The greatest impact of the current study is that it has identified important goals and objectives for the practice of class teachers, special education teachers and EPs, when implementing the Continuum of Support framework to identify and support pupils with SEN. For instance, it is advisable that class teachers and special education teachers obtain support from EPs in delivering a broad and balanced curriculum, whilst also meeting the diverse learning needs within their classrooms. To support the development of positive working relationships, EPs must also set aside protected time during school visits to get to know and meet the parents, class teachers and special education teachers of pupils on their caseloads. Additionally, by examining the perspectives of class teachers and special education teachers, it enabled the researcher to elucidate the potential contribution that EPs can make to supporting school staff and pupils within mainstream primary schools. The findings of the current study emphasise the need for the Irish education system to involve the 'pupil voice' in the development of school and educational policies. There is a need for EPs to measure progress

towards such aspirations and to ensure that the voice of the pupil is prioritised by class teachers and special education teachers in practice (e.g. completing pupil interviews). Training may also be provided to schools by EPs on existing policies, mainly the New Model for the Allocation of Special Education Teaching Resources for Mainstream Schools (DES, 2017a, 2017b). Without their support, the current gap between policy and practice will still remain. In line with the literature reviewed, these implications will have significant impacts to benefit pupils with SEN in mainstream schools and their families. In communicating these implications for policy, practice and research, the empirical paper will be submitted for publication to an appropriate journal such as '*Contemporary Educational Psychology*', '*Irish Educational Studies*', and the '*Journal of Educational Psychology*'.

It is envisaged that this study will inspire future research on the Continuum of Support framework within services such as NEPS, to bring about professional and organisational development. Findings may be presented at team meetings within the NEPS to stimulate dialogue amongst EPs in how they can best support primary and post-primary schools with the implementation of inclusive policies and practices. 'Third-Generation Activity Theory' may be adopted by future researchers to bring about such change within organisations. The researcher has already presented preliminary findings of the current study at the PSI's annual virtual conference in November 2020. It is intended that she extend this further through presenting the findings at future conferences and at the 2021 Research Methods Summer School taking place at Mary Immaculate College. The current study emphasised the need for EPs to promote a more integrated Continuum of Support framework that incorporates initiatives for the academic, behavioural, and social-emotional needs of all pupils. Specifically, study findings indicated that there was a strong focus on addressing pupils' academic needs more so than their social, emotional, physical, sensory and communication difficulties. Connecting them with the academic curriculum was a priority.

Overall, the findings from this study have the potential to inform the field of inclusive education generally, nationally and internationally, in the evaluation of inclusive education policy and practice. The absence of the voice of the child in practice, and class teachers and special education teachers insufficient knowledge and skills on the implementation of the Continuum of Support framework, are significant findings. This research has made an original contribution to knowledge and scholarship with regards to the evolving role of the class teacher, special education teacher and EP, within the Continuum of Support framework within an Irish educational context. It is timely given the current focus on inclusive education in Ireland.

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Appendices

Appendix A: Summary of Included Studies:

Search Strategy	Included Studies
Review Question 2	Castro-Villarreal, F., Rodriguez, B. J., & Moore, S. (2014). Teachers' perceptions and attitudes about response to intervention (RTI) in their schools: A qualitative analysis. *Teaching and Teacher Education, 40,* 104-112. https://doi.org/10.1016/j.tate.2014.02.004
Review Question 2	Clayton, J., Robertson, D., & Sotomayor, T. (2020). Opportunities and access: Exploring how school district leaders make meaning of equity in practice through positive behavioral interventions and supports. *International Journal of Education Policy and Leadership, 16*(4), 1-21. https://doi.org/10.22230/ijepl.2020v16n4a878
Review Question 2	Donovan, E., & Shepherd, K. (2013). Implementing multi-tiered systems of support in mathematics: findings from two schools. *Journal of Special Education Apprenticeship, 2*(1), 1-15.
Review Question 1	Dunn, M., & Mabry, L. (2011). Voices from the field: Practitioners' perspectives about response-to-intervention implementation. *Journal of School Connections, 3*(1), 37-62.
Review Question 1	Gates, L. K., Fischetti, J. C., & Moody, A. (2013). Implementing and monitoring the response to intervention process: The special educator perspective. *Journal of the American Academy of Special Education Professionals,* 20-47.
Review Question 1	Pavri, S. (2010). Response to intervention in the social-emotional-behavioral domain: Perspectives from urban schools. *Teaching Exceptional Children Plus, 6*(3), 1-16. http://escholarship.bc.edu/education/tecplus/vol6/iss3/art4
Review Question 2	Pyle, A., Wade-Woolley, L., & Hutchinson, N. L. (2011). "Just listen to us": The role of teacher empowerment in the implementation of responsiveness to intervention. *Alberta Journal of Educational Research, 57*(3), 258-272.
Review Question 2	Regan, K. S., Berkeley, S. L., Hughes, M., & Brady, K. K. (2015). Understanding practitioner perceptions of responsiveness to intervention. *Learning Disability Quarterly, 38*(4), 234-247. https://doi.org/10.1177/0731948715580437
Review Question 2	Robinson, G. G. (2016). Culturally responsive beliefs and practices of general and special education teachers within a response to intervention framework. *Multiple Voices for Ethnically Diverse Exceptional Learners, 16*(2), 22-36.
Review Question 1	Stuart, S., Rinaldi, C., & Higgins-Averill, O. (2011). Agents of change: Voices of teachers on response to intervention. *International Journal of Whole Schooling, 7*(2), 53-74.

Search Strategy	Included Studies
Review Question 2	Swanson, E., Solis, M., Ciullo, S., & McKenna, J. W. (2012). Special education teachers' perceptions and instructional practices in response to intervention implementation. *Learning Disability Quarterly, 35*(2), 115-126. https://doi.org/10.1177/0731948711432510
Review Question 2	Werts, M. G., Carpenter, E. S., & Fewell, C. (2014). Barriers and benefits to response to intervention: perceptions of special education teachers. *Rural Special Education Quarterly, 33*(2), 3-12.
Review Question 1	Wilcox, K. A., Murakami-Ramalho, E., & Urick, A. (2013). Just-in-time pedagogy: teachers' perspectives on the response to intervention framework. *Journal of Research in Reading, 36*(1), 75-95. https://doi.org/10.1111/j.1467-9817.2011.01494.x

Appendix B: Excluded Articles with Rationale and Full References (Full Text):

Search Strategy	Excluded Study	Rationale for Exclusion
Review Question 2	Bouck, E. C., & Cosby, M. D. (2019). Response to intervention in high school mathematics: One school's implementation. *Preventing School Failure, 63*(1), 32-42. https://doi.org/10.1080/1045988X.2018.1469463	Domain 7 (see Table 2.2, p. 24).
Review Question 2	Cramer, E. D., & Bennett, K. D. (2015). Implementing culturally responsive positive behavior interventions and supports in middle school classrooms. *Middle School Journal, 46*(3), 18-24.	Domains 4, 5 and 7 (see Table 2.2, p. 24).
Review Question 2	Evans, C., & Weiss, S. L. (2014). Teachers working together: how to communicate, collaborate, and facilitate positive behavior in inclusive classrooms. *The Journal of the International Association of Special Education, 15*(2), 142-146.	Domains 4, 5 and 7 (see Table 2.2, p. 24).
Review Question 1	Evans, C., Weiss, S. L., & Cullinan, D. (2012). Teacher perceptions and behavioral strategies for students with emotional disturbance across educational environments. *Preventing School Failure, 56*(2), 82-90. https://doi.org/10.1080/1045988X.2011.574170	Domains 6 and 7 (see Table 2.2, p. 24).
Review Question 2	Kratochwill, T. R., Volpiansky, P., Clements, M., & Ball, C. (2007). Professional development in implementing and sustaining multitier prevention models: Implications for response to intervention. *School Psychology Review, 36*(4), 618-631.	Domains 4, 5 and 7 (see Table 2.2, p. 24).
Review Question 2	Rinaldi, C., Averill, O. H., & Stuart, S. (2011). Response to intervention: Educators' perceptions of a three-year RtI collaborative reform effort in an urban elementary school. *Journal of Education, 191*(2), 43-53.	Domain 7 (see Table 2.2, p. 24).
Review Question 1	Sanetti, L. M. H., & Collier-Meek, M. A. (2015). Data-driven delivery of implementation supports in a multi-tiered framework: A pilot study. *Psychology in the Schools, 52*(8), 815-828. https://doi.org/10.1002/pits.21861	Domain 7 (see Table 2.2, p. 24).

Appendix C: Summary of Identified Studies for Review Question 1:

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
1. Dunn and Mabry (2011).	United States.	*N* = 16. Participants ranged in experience from 1-33 years. Sample consisted of classroom teachers, special education teachers, school and district administrators, school psychologists, a literacy specialist and a math specialist.	Qualitative design. Phenomenological research approach.	Semi-structured interviews. Reviews of district documents, state websites and federal legislation. Thematic content analysis.	RtI model of service delivery.	The class teachers were unsure of the various interventions to support struggling students. They had difficulties determining which intervention would be most appropriate to match the student's various needs. The class teachers had a lack of knowledge and consensus about how to manage and deliver intervention programming. Universal screenings and ongoing data collection posed challenges. Lack of knowledge on various approaches impaired fidelity to MTSS.
2. Gates et al. (2013).	United States.	Phase 1: *N* = 29 (28 females, 1 male). Sample consisted of special education teachers. Phase 2: *N* = 6 (all female, special education teachers).	Mixed methods: sequential explanatory approach.	Phase 1: Online quantitative and qualitative survey. Phase 2: One interview and three structured observations.	RtI model of service delivery.	Phase 1: Administering interventions (*N* = 11), attending meetings (*N* = 9), and progress monitoring (*N* = 8). The participants presence, and their provision of instruction in the general education classroom, did not increase through RtI implementation. The participants did not conduct direct and frequent assessment of an intervention for fidelity. The implementation of RtI hampered their abilities to be effective teachers to students with IEPS.

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
		Selected from phase 1.		Close-ended survey questions: descriptive statistics. Open-ended questions: analysed for codes and themes. Visual analysis.		There is a need for professional development related to specific, research based interventions and for collaborative efforts amongst schools.
3. Pavri (2010).	United States.	*N* = 9 (7 females, 2 males). Sample consisted of special education teachers. Elementary level (*N* = 5); middle school level (*N* = 2); and high school level (*N* = 1).	Qualitative design.	Two, hour-long focus group interviews (one month apart). Emerging themes were coded using grounded theory approaches.	RtI model of service delivery.	Students with internalizing behaviours went unrecognized and unattended to. Classroom teacher observation and referral were most common. Ongoing communication with parents is deemed an effective technique by special education teachers. Building relationships with students is key to the intervention process and focusing on their strengths. Collaboration with parents when developing and implementing interventions was effective.
4. Stuart et al. (2011).	United States.	*N* = 8 (all female). Sample consisted of general education classroom teachers (*N* = 4); school reading specialist (*N* = 1);	Qualitative design. Three year study.	Two, 90 minute focus groups and follow-up individual interviews (over a year).	RtI model of service delivery.	Concerns were raised about sufficient time for planning, conducting assessments and tracking the effectiveness of interventions. Participants felt that they were highly effective in reporting academic progress to colleagues in measurable ways. Progress monitoring also helped to identify students

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
		special education teachers (N = 3).	Year 1: Developing RtI model. Collecting data on student academic progress and teacher perceptions. Year 2: Continued support and implementing RtI model. Year 3: Implementing RtI model with minimal support.	Analysed data using four overlapping stages of the constant comparative method.		that needed additional support. RtI afforded them a greater sense of autonomy.
5. Wilcox et al. (2013).	United States.	N = 117. 88 Michigan teachers and reading specialists; 29 Texas teachers, reading and curriculum specialists and administrators. Two subsamples from the same population of teachers.	Mixed methods. Qualitative data: Focus groups and semi-structured interviews. Quantitative data: Questionnaire.	Data was evaluated using constant comparison from peer debriefings, interviews and focus groups. Descriptive analysis and Spearman's ρ correlation.	RtI model of service delivery.	Participants that viewed collaboration and early intervention as important for success, more often perceived student achievement and teacher accountability as less important. The majority of participants were only fairly confident in their abilities to adapt instruction/differentiate the curriculum to meet students' needs. Participants were more knowledgeable in administering assessments; they needed additional support in their instructional strategies to increase student achievement; they valued the problem-solving processes but concerns were raised about their collaboration with colleagues.

Appendix D: Summary of Identified Studies for Review Question 2:

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
1. Castro-Villarreal et al. (2014).	United States.	*N* = 97. Sample consisted of teachers/educators. Female, *N* = 86%. Male, *N* = 14%. Hispanic, *N* = 57%. African American, *N* = 5%. Caucasian, *N* = 35%. Most were between 21 and 60 years of age.	Qualitative design. Grounded theory approach.	Questionnaire: 32 Likert scale items and 6 open-ended items. Only the 6 open-ended questions were examined in the present study. Constant comparison analysis and inductive processes. Responses were entered into NVivo 8.0 software programme for analysis.	RtI model of service delivery.	185 barriers identified by survey respondents and broken down into five key themes: (1) Training: Lack of adequate training: training on interventions, how to conduct data collection and progress monitoring for those interventions. (2) Time: Lack of time to plan, implement and gather data. (3) Resources: Lack of resources and staff support. (4) The RtI process: Too many steps and the process is too long. (5) Paperwork: The need for constant documentation is difficult to keep up with.
2. Clayton et al. (2020).	United States.	Sample consisted of principals, administrative teams and a select group of teachers across five schools.	Multi-case study design (five schools).	Case study including interviews, focus groups and targeted observations.	PBIS model of service delivery.	Through the implementation of PBIS, clear expectations were established for students and staff in Golden Rod High School. High teacher-turnover rate however was a barrier to PBIS implementation. PBIS has had a

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
		Two elementary schools. Two middle schools. One high school.		Comparative and cross case analysis.		positive influence and the collaboration it brings, makes a large school feel like a small school. PBIS implementation looks for the positive in all aspects of the students school and personal lives. Teachers are commenting specifically on positive behaviours and reframing but teachers noted that they were overwhelmed at the scope and pace of work.
3. Donovan and Shepherd (2013).	United States.	One elementary school, *N* = 6 (classroom math instructors, paraprofessionals, a math specialist and the school principal). One middle school, *N* = 8 (special educators, classroom math instructors, a math specialist and the school principal).	Qualitative design.	The study used qualitative methods: observations, semi-structured interviews and a case-study approach. Data was collected through two-day site visits at each school. Qualitative thematic analysis was used to analyse interview transcripts.	RtI model of service delivery.	(1) Time and Effort: Participants noted that the amount of time dedicated to implementing the model and developing the materials and methods, might not be sustainable long-term. (2) Shifting Roles: Maths specialists felt that classroom teachers could take over some of the responsibility regarding developing materials and methods, while class teachers felt that the model saved them time in the classroom. (3) Collaboration and Communication: Increased collaboration and communication with colleagues helped improve instruction and provide additional supports for students. However, finding the time for formal planning meetings also proved difficult. Flexibility and responsiveness to students' progress was also an additional challenge.

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
4. Pyle et al. (2011).	United States.	Four schools participated (five were invited to participate). *N* = 13, classroom teachers (12 females, 1 male). Years of teaching experience ranged from 3 to 26 years.	Qualitative design.	Focus groups with classroom teachers (3 to 5 teachers) to address the enablers and barriers that they faced during the pilot project. Thematic analysis and constant comparison was used to generate codes, categories and themes.	RtI model of service delivery.	(1) Isolation and Collaborative Exchanges: Some teachers felt that the implementation of RtI was their sole responsibility which resulted in the lack of implementation of this MTSS. By contrast, other teachers reported that they felt isolated in their individual classrooms but that regular meetings and opportunities to collaborate with colleagues helped overcome this barrier. (2) Leadership: Teachers in isolation felt there was a need for a leader in their schools to lead meetings and to push things to start happening. (3) Lack of Support: Teachers are not implementing RtI as a result of a lack of support. They do not understand the testing procedures and do not know how to use student data to gauge improvements in learning.
5. Regan et al. (2015).	United States.	Recruited (*N* = 63). General education, special education, specialists and administrators. Phase 2 (*N* = 10). Majority were female (82.5%); 79.4% had a master's degree.	Mixed-methods.	Phase 1: Quantitative and qualitative questionnaire. Analysis: Cronbach's alpha. Phase 2: Semi-structured interviews/observations. Step-by-step process of analysis was used.	RtI model of service delivery.	(1) Teachers identified lack of time as a significant barrier. (2) Lack of training on assessment tools and data collection programs. (3) Inadequate resources. (4) Lack of clarity on when students can move between tiers.

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
6. Robinson (2016).	United States.	*N* = 200 (general and special education teachers). Eight diverse elementary schools participated. The majority were general educators (82.5%); had more than 10 years of experience in education (57.5%) and had a direct role in RtI (82.5%).	Mixed methods.	Survey based on section 1 of the Checklist to Address Disproportionality in Special Education (CADSE), observation checklist survey. Quantitative data: imported to SPSS Version 17.0 for analyses (independent t tests). Qualitative data: analysed using topical and descriptive codes.	RtI model of service delivery.	(1) Differentiated Instruction: Small group instruction and flexible grouping provides teachers with more information to help students. (2) Collaboration with colleagues and other professionals helps to address all aspects of a student and meet the child's individual needs on many levels. (3) Communication with families acts as a barrier, particularly for parents with limited English. (4) Not enough hours in the day; lack of planning time; lack of guidance and clear practices; lack of effort and motivation from students; lengthy process.
7. Swanson et al. (2012).	United States.	*N* = 17, special education teachers (in Year 1). Year 2 (*N* = 12), special education teachers. Females (*N* = 15; 10), Males (*N* = 10; 2). Teaching experience of sample ranged from 1 to 31 years. Four teachers held a master's degree.	Qualitative design.	Focus groups in Year 1; interviews in Year 2 and observations during Year 1/2 to capture all reading and mathematics instruction. Descriptive statistics and a three-step flow analysis.	RtI model of service delivery.	(1) Most commonly cited benefit is being able to identify students' academic needs early, leading to targeted services being provided quickly. (2) Being able to see kids as soon as they show signs of trouble and meeting their needs. (3) Increased opportunities to work with colleagues and consult with one another. (4) Strained their schedules and added paperwork.

Authors	Country	Sample Characteristics	Study Design	Data Collection and Data Analysis	MTSS	Findings Relevant to the Review Question
8. Werts et al. (2014).	United States.	*N* = 211, special education teachers. 44.2% noted that RtI was used in their school. These 470 special education teachers were then invited to list barriers and benefits and 211 participated in the survey.	Qualitative design.	Survey: developed through a systematic process of reviews. Used a constant comparison method to compare statements against one another.	RtI model of service delivery.	(1) Burdensome Process, Heavy Workload and Paperwork: Participants noted that they did not initiate the process due to the time required. (2) Lack of Training: Training needed for regular classroom teachers on interventions, progress monitoring methods and assessment information. (3) Attitudes: Lack of teacher buy-in appeared to inhibit successful implementation. Parents also do not understand the process. (4) Lack of Resources and Staff: Impacting on implementation of RtI. (5) Collaboration with Colleagues: Feedback on students is not provided promptly. (6) Students are however benefiting from early intervention and high levels of instruction.

Appendix E: Selected Criterion's Name, Explanation and Coding WoE A:

Credibility Measures for Qualitative Research	Explanation from Brantlinger et al. (2005) (pp. 201-202)	Coding Criteria (0-3 ranking)
1. Triangulation.	Search for convergence of, or consistency among, evidence from multiple and varied data sources (observations/interviews; one participant & another; interviews/documents). • *Data triangulation* – use of varied data sources in a study. • *Investigator triangulation* – use of several researchers, evaluators, peer debriefers. • *Theory triangulation* – use of multiple perspectives to interpret a single set of data. • *Methodological triangulation* – use of multiple methods to study a single problem.	If the study states the type of triangulation, it receives a tick. 0: No evidence of triangulation (0 ticks). 1: Weak evidence of triangulation (1 tick). 2: Medium evidence of triangulation (2-3 ticks). 3: Strong evidence of triangulation (4 ticks).
2. Disconfirming Evidence.	After establishing preliminary themes/categories, the researcher looks for evidence inconsistent with these themes (outliers); also known as negative or discrepant case analysis.	0: There is no evidence of negative/discrepant case analysis. 1: There is evidence of negative/discrepant case analysis but it is not stated directly. 2: There is evidence of negative/discrepant case analysis and it is stated directly. 3: There is evidence of negative case analysis, it is stated directly with examples.
3. Researcher Reflexivity.	Researchers attempt to understand and self-disclose their assumptions, beliefs, values, and biases (i.e. being forthright about position/perspective).	0: There is no evidence of own views/perspectives/reflections. 1: States methods of being reflective but not that they were used/minimising their views e.g. researchers all looked at the transcripts. 2: Refers to methods of being reflective that minimised their views e.g. researchers looked at transcripts and discussed findings. 3: Explicitly states how they were reflexive e.g. researchers looked at transcripts, discussed and collated findings and agreed on final outcomes. Emergence of themes from the data as a result.

Credibility Measures for Qualitative Research	Explanation from Brantlinger et al. (2005) (pp. 201-202)	Coding Criteria (0-3 ranking)
4. Member Checks.	Having participants review and confirm the accuracy (or inaccuracy) of interview transcriptions or observational field notes. • *First level* - taking transcriptions to participants prior to analyses and interpretation of results. • *Second level* - taking analyses and interpretations of data to participants (prior to publication) for validation of (or support) for researchers' conclusions.	0: No evidence of member checks. 1: Evidence of member checks but not stated directly. 2: Evidence of first or second level member checks. 3: Evidence of first and second level member checks.
5. Collaborative Work.	Involving multiple researchers in designing a study or concurring about conclusions to ensure that analyses and interpretations are not idiosyncratic and/or biased; could involve interrater reliability checks on the observations made or the coding of data. (The notion that persons working together will get reliable results is dependent on the "truth claim" assumption that one can get accurate descriptions of situational realities.).	0: Not discussed. 1: Stated that multiple researchers were used. 2: Stated that multiple researchers were used and in which sections. 3: Stated that multiple researchers were used and included discussions about interrater reliability.
6. External Auditors.	Using outsiders (to the research) to examine if, and confirm that, a researcher's inferences are logical and grounded in findings.	0: Not discussed. 1: Stated that they used external auditors in the research. 2: Stated who they used as external auditors and who they were. 3: Stated that the external auditors were used, who they were and the outcomes.
7. Peer Debriefing.	Having a colleague or someone familiar with phenomena being studied review and provide critical feedback on descriptions, analyses, and interpretations or a study's results.	0: This was not discussed. 1: There was a mention of multiple researchers. 2: Stated who they used and who they were. 3: Stated that they were used, who they were and what the outcomes were.
8. Audit Trail.	Keeping track of interviews conducted and/or specific times and dates spent observing as well as who was observed on each occasion; used to document and substantiate that sufficient time was spent in the field to claim dependable and confirmable results.	0: This was not discussed. 1: Talks about making notes of the process but does not call it audit trail. 2: Stated that they used audit trail.

Credibility Measures for Qualitative Research	Explanation from Brantlinger et al. (2005) (pp. 201-202)	Coding Criteria (0-3 ranking)
		3: Stated that they used audit trail, why and the purpose of it.
9. Prolonged Field Engagement.	Repeated, substantive observations; multiple, in-depth interviews; inspection of a range of relevant documents; thick description validates the study's soundness.	0: There is no evidence of this. 1: There is one of three items. 2: There is two of three items. 3: All three items: observations, in-depth interviews and inspection of documents.
10. Thick, detailed description.	Reporting sufficient quotes and field note descriptions to provide evidence for researchers' interpretations and conclusions.	0: There were no quotes used. 1: One or less quotes used for each theme or short quotes (1-3) words. 2: There were full quotes used for each theme. 3: There were multiple quotes used for each theme and from different participants.
11. Particularizability.	Documenting cases with thick description so that readers can determine the degree of transferability to their own situations.	0: There is no evidence of situation discussed. 1: Limited details about the participants and context or not representative of the outside world. 2: Extended details of situation discussed. 3: Explicit details of situation discussed.
WoE A Credibility Measures.	Triangulation, Disconfirming Evidence, Researcher Reflexivity, Member Checks, Collaborative Work, External Auditors, Peer Debriefing, Audit Trail, Prolonged Field Engagement, Thick, Detailed Description and Particularizability.	Average of the scores for each category.

Quality Indicators Criteria Name	Explanation from Brantlinger et al. (2005) (pp. 201-202)	Coding Criteria (0-3 ranking)
1. Interview Studies (or Interview Components of Comprehensive Studies).	1. Appropriate participants are selected (purposefully identified, effectively recruited, adequate number, representative of population of interest). 2. Interview questions are reasonable (clearly worded, not leading, appropriate and sufficient for exploring domains of interest). 3. Adequate mechanisms are used to record and transcribe interviews. 4. Participants are represented sensitively and fairly in the report. 5. Sound measures are used to ensure confidentiality.	0: Does not meet any of the criteria. 1: Meets one of five of the criteria. 2: Meets two to three of the criteria. 3: Meets four to five of the criteria.
2. Data Analysis.	1. Results are sorted and coded in a systematic and meaningful way. 2. Sufficient rationale is provided for what was (or was not) included in the report. 3. Documentation of methods used to establish trustworthiness and credibility are clear. 4. Reflection about researchers' personal position/perspectives are provided. 5. Conclusions are substantiated by sufficient quotations from participants, field notes of observations, and evidence of documentation inspection. 6. Connections are made with related research.	0: Does not meet any of the criteria. 1: Meets one of six of the criteria. 2: Meets two to four of the criteria. 3: Meets five to six of the criteria.
WoE A Quality Indicators.	Interview Studies and Data Analysis.	Average of the scores for each category.

Appendix F: Ratings of Credibility Measures and Quality Indicators for Included Qualitative Studies WoE A:

Credibility Measures for Qualitative Research	Castro-Villarreal et al. (2014)	Clayton et al. (2020)	Donovan and Shepherd (2013)	Dunn and Mabry (2011)	Pavri (2010)	Pyle et al. (2011)	Stuart et al. (2011)	Swanson et al. (2012)	Werts et al. (2014)
1. Triangulation.	Data triangulation. Not specified directly in study. Use of different sources. Rating (1). Weak evidence.	Data triangulation. Methodological triangulation. Rating (2). Medium evidence.	Data triangulation. Methodological triangulation. Rating (2). Medium evidence.	Data triangulation. Methodological triangulation. Theory triangulation stated. Rating (3). Strong evidence.	Data triangulation. Rating (1). Weak evidence.	Data triangulation. Rating (1). Weak evidence.	Data triangulation. Methodological triangulation. Rating (2). Medium evidence.	Data triangulation. Methodological triangulation. Rating (2). Medium evidence.	Data triangulation. Rating (1). Weak evidence.
2. Disconfirming Evidence.	No evidence. Rating (0).	No evidence. Rating (0).	No evidence. Rating (0).	Evidence but not stated directly. Rating (1).	Evidence but not stated directly. Rating (1).	Evidence but not stated directly. Rating (1).	No evidence. Rating (0).	Evidence but not stated directly. Rating (1).	No evidence. Rating (0).
3. Researcher Reflexivity.	Explicitly stated. Rating (3).	No evidence. Rating (0).	Explicitly stated. Rating (3).	Explicitly stated. Rating (3).	Explicitly stated. Rating (3).	Explicitly stated. Rating (3).	Explicitly stated. Rating (3).	Explicitly stated. Rating (3).	Explicitly stated. Rating (3).
4. Member Checks.	No evidence. Rating (0).	No evidence. Rating (0).	No evidence. Rating (0).	First level member checks. Rating (2). Opportunity to review transcript prior to analysis/ reporting.	First level member checks. Rating (2). Responses reviewed; clarified/ elaborated responses.	No evidence. Rating (0).	First and second level member checks. Rating (3). Review transcripts, theme results, and answer questions.	No evidence. Rating (0).	No evidence. Rating (0).

Credibility Measures for Qualitative Research	Castro-Villarreal et al. (2014)	Clayton et al. (2020)	Donovan and Shepherd (2013)	Dunn and Mabry (2011)	Pavri (2010)	Pyle et al. (2011)	Stuart et al. (2011)	Swanson et al. (2012)	Werts et al. (2014)
5. Collaborative Work.	Stated that multiple researchers were used and included discussions about interrater reliability. Rating (3).	Stated that multiple researchers were used and in which sections. Rating (2).	Stated that multiple researchers were used and included discussions about interrater reliability. Rating (3).	Stated that multiple researchers were used and in which sections. Rating (2).	Not discussed. Rating (0). Author completed all tasks.	Stated that multiple researchers were used and in which sections. Rating (2).	Stated that multiple researchers were used and included discussions about interrater reliability. Rating (3).	Stated that multiple researchers were used and in which sections. Rating (2).	Stated that multiple researchers were used and in which sections. Rating (2).
6. External Auditors.	A team of licensed specialists in school psychology who were also academics and trained in RtI. Reviewed and inputted on two drafts of survey. Rating (3).	Not discussed. Rating (0).	Not discussed. Rating (0).	Not discussed. Rating (0).	Not discussed. Rating (0).	Not discussed. Rating (0).	Not discussed. Rating (0).	Not discussed. Rating (0).	10 university faculty members in special education verified the content validity of the survey and made suggestions. Survey was revised and sent onto a five-member panel. Rating (3).

Credibility Measures for Qualitative Research	Castro-Villarreal et al. (2014)	Clayton et al. (2020)	Donovan and Shepherd (2013)	Dunn and Mabry (2011)	Pavri (2010)	Pyle et al. (2011)	Stuart et al. (2011)	Swanson et al. (2012)	Werts et al. (2014)
7. Peer Debriefing.	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).
8. Audit Trail.	This was not discussed. Rating (0).	This was not discussed. Rating (0).	States that qualitative thematic analysis was used to analyse interviewers' observation notes. Rating (1).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	This was not discussed. Rating (0).	Kept extensive field notes to aid reflection. Maintained a research journal that included methodological, logistical and miscellaneous notes. Rating (3).	This was not discussed. Rating (0).	This was not discussed. Rating (0).
9. Prolonged Field Engagement.	Only six open-ended qualitative items were examined. Rating (0).	Interviews; focus groups and targeted observations. Rating (3).	Observations and semi-structured interviews. Rating (2).	Semi-structured interviews; review of documents. Rating (2).	Two hour-long focus groups. Rating (1).	Focus groups. Rating (1).	Two 90 minute focus groups and follow-up individual interviews. Rating (2).	Interviews; focus groups and targeted observations. Rating (3).	Survey sent via e-mail to participants. Rating (0).
10. Thick, Detailed Description.	Multiple quotes for each theme from different participants. Rating (3).	Multiple quotes for each theme from different participants. Rating (3).	Multiple quotes for each theme from different participants. Rating (3).	Multiple quotes for each theme from different participants. Rating (3).	Full quotes used for each theme, not always from multiple participants. Rating (2).	Multiple quotes for each theme from different participants. Rating (3).	Multiple quotes for each theme from different participants. Rating (3).	Multiple quotes for each theme from different participants. Rating (3).	Multiple quotes for each theme from different participants. Rating (3).

Credibility Measures for Qualitative Research	Castro-Villarreal et al. (2014)	Clayton et al. (2020)	Donovan and Shepherd (2013)	Dunn and Mabry (2011)	Pavri (2010)	Pyle et al. (2011)	Stuart et al. (2011)	Swanson et al. (2012)	Werts et al. (2014)
11. Particularizability.	Explicit details. Rating (3).	Limited details about participants. Rating (1).	Extended details. Rating (2).	Explicit details. Rating (3).	Extended details. Rating (2).	Extended details. Rating (2).	Explicit details. Rating (3).	Extended details. Rating (2).	Extended details. Rating (2).
Overall Score.	16	11	16	19	12	13	22	16	14
Average Score.	1.45	1	1.45	1.73	1.09	1.18	2	1.45	1.27

Quality Indicators Within Qualitative Research	Castro-Villarreal et al. (2014)	Clayton et al. (2020)	Donovan and Shepherd (2013)	Dunn and Mabry (2011)	Pavri (2010)	Pyle et al. (2011)	Stuart et al. (2011)	Swanson et al. (2012)	Werts et al. (2014)
1. Interview Studies.	Meets Criteria 1, 2 and 4. Rating (2).	Meets Criteria 2 and 4. Rating (2). Did not specify number of participants or how they were recruited.	Meets Criteria 1, 3, 4 and 5. Rating (3). Interview questions were not provided. Specifies pseudonyms were used for interviewees.	Meets Criteria 1, 2, 3, and 4. Rating (3). Participants identified by their district, role and years of experience. Not specified about using pseudonyms.	Meets Criteria 1, 3 and 5. Rating (2). Stated that participants names were changed to preserve confidentiality. Quotes from same participants.	Meets Criteria 1, 4 and 5. Rating (2). Limited samples of questions provided. Cannot comment as such. Teachers were given codes for confidentiality.	Meets Criteria 1, 2, 3, 4 and 5. Rating (3). Interview questions provided. Pseudonyms used. Videotaped/ transcribed focus groups/ interviews.	Meets Criteria 1, 3 and 4. Rating (2). Limited samples of questions provided. No confidentiality measures mentioned.	Meets Criteria 1 and 4. Rating (2). Noted response and return rate of survey. No questions.
2. Data Analysis.	Meets Criteria 1, 4, 5 and 6. Rating (2).	Meets Criteria 1. Rating (1). No connections made with related research and while observations took place, there is no documentation/evidence of this.	Meets Criteria 1, 4, and 5. Rating (2). No connections made with related research.	Meets Criteria 1, 3, 4, 5 and 6. Rating (3).	Meets Criteria 1, 3, 4, 5 and 6. Rating (3).	Meets Criteria 1, 4, 5 and 6. Rating (3).	Meets Criteria 1, 3, 4, 5 and 6. Rating (3). Data/ methodological triangulation. First/second level member checks.	Meets Criteria 1, 3, 4 and 5. Rating (2).	Meets Criteria 1, 4, 5 and 6. Rating (2).
Overall Score.	4	3	5	6	5	5	6	4	4
Average Score.	2	1.5	2.5	3	2.5	2.5	3	2	2

Note. Please see Appendix E for Quality Indicators and Coding Criteria. Points of interest noted by author.

Appendix G: Overview of WoE A for Qualitative Studies (Brantlinger et al., 2005):

Study	Credibility Measures	Quality Indicators	Overall WoE A
1. Castro-Villarreal et al. (2014).	1.45	2	1.73
2. Clayton et al. (2020).	1	1.5	1.25
3. Donovan and Shepherd (2013).	1.45	2.5	1.98
4. Dunn and Mabry (2011).	1.73	3	2.37
5. Pavri (2010).	1.09	2.5	1.80
6. Pyle et al. (2011).	1.18	2.5	1.84
7. Stuart et al. (2011).	2	3	2.5
8. Swanson et al. (2012).	1.45	2	1.73
9. Werts et al. (2014).	1.27	2	1.64

Note. Same weighting descriptors apply as shown in Table 2.6.

Appendix H: Quality Criteria for Mixed-Methods Designs (WoE A). Adapted from Hong et al. (2018):

Category of Study Designs	Methodological Quality Criteria	Gates et al. (2013)	Regan et al. (2015)	Robinson (2016)	Wilcox et al. (2013)
Screening questions (for all types).	1. Are there clear research questions? 2. Do the collected data allow to address the research questions?	1. Yes (x 3). 2. Yes.	1. Yes (x 8). 2. Yes.	1. Yes (x 4). 2. Yes.	1. Yes (x 1). 2. Yes.
1. Qualitative.*	1.1. Is the qualitative approach appropriate to answer the research question? 1.2. Are the qualitative data collection methods adequate to address the research question? 1.3. Are the findings adequately derived from the data? 1.4. Is the interpretation of results sufficiently substantiated by the data? 1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?	1.1. Yes. 1.2. Yes. 1.3. Yes. 1.4. No. 1.5. Yes. Total: Yes (x 4). No (x 1).	1.1. Yes. 1.2. Yes. 1.3. Yes. 1.4. Yes. 1.5. Yes. Total: Yes (x 5).	1.1. Yes. 1.2. No. 1.3. Yes. 1.4. Yes. 1.5. Yes. Total: Yes (x 4). No (x 1).	1.1. Yes. 1.2. Yes. 1.3. Yes. 1.4. Yes. 1.5. Yes. Total: Yes (x 5).
2. Quantitative Randomized Controlled Trials.	2.1. Is randomization appropriately performed? 2.2. Are the groups comparable at baseline? 2.3. Are there complete outcome data? 2.4. Are outcome assessors blinded to the intervention provided? 2.5. Did the participants adhere to the assigned intervention?	Does not apply to selected studies.			
3. Quantitative Non-Randomized.	3.1. Are the participants representative of the target population? 3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)? 3.3. Are there complete outcome data? 3.4. Are the confounders accounted for in the design and analysis? 3.5. During the study period, is the intervention administered (or exposure occurred) as intended?	Does not apply to selected studies.			

Category of Study Designs	Methodological Quality Criteria	Gates et al. (2013)	Regan et al. (2015)	Robinson (2016)	Wilcox et al. (2013)
4. Quantitative Descriptive.*	4.1. Is the sampling strategy relevant to address the research question? 4.2. Is the sample representative of the target population? 4.3. Are the measurements appropriate? 4.4. Is the risk of nonresponse bias low? 4.5. Is the statistical analysis appropriate to answer the research question?	4.1. Yes. 4.2. Yes. 4.3. Yes. 4.4. Yes. 4.5. Yes. Total: Yes (x 5).	4.1. Yes. 4.2. Yes. 4.3. Yes. 4.4. No. 4.5. Yes. Total: Yes (x 4). No (x 1).	4.1. Yes. 4.2. Yes. 4.3. Yes. 4.4. Yes. 4.5. Yes. Total: Yes (x 5).	4.1. Yes. 4.2. No. 4.3. No. 4.4. Can't tell. 4.5. Yes. Total: Yes (x 2). No (x 2). Can't tell (x 1).
5. Mixed Methods.*	5.1. Is there an adequate rationale for using a mixed methods design to address the research question? 5.2. Are the different components of the study effectively integrated to answer the research question? 5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted? 5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed? 5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	5.1. No. 5.2. Yes. 5.3. Yes. 5.4. Yes. 5.5. Yes. Total: Yes (x 4). No (x 1).	5.1. Yes. 5.2. No. 5.3. No. 5.4. Yes. 5.5. Yes. Total: Yes (x 3). No (x 2).	5.1. No. 5.2. No. 5.3. No. 5.4. Yes. 5.5. Yes. Total: Yes (x 2). No (x 3).	5.1. Yes. 5.2. Yes. 5.3. Yes. 5.4. Yes. 5.5. No. Total: Yes (x 4). No (x 1).
Overall WoE A: Mixed Methods Studies:	See Table 2.5 (p. 29) for weighting and descriptor. [a]	High (3).	High (3).	Medium (2).	Medium (2).

Note. *Chosen as appropriate for study type. Response options were "Yes", "No" or "Can't Tell". The latter response option indicates that the paper does not report appropriate information to answer "Yes" or "No".

[a] It is discouraged to calculate an overall score when utilising the MMAT. A detailed presentation of the ratings for each criterion is advised, as demonstrated above, to better inform the quality of each study included (Hong et al., 2018).

Appendix I: WoE B Methodological Relevance Weighting Criteria:

Weighting	Descriptor
High (3): Design: Method/design was apparent and consistent with the research intent. Data collection strategy was apparent and appropriate.	Study includes <u>all</u> of the following: 1. Rationale is given for the use of qualitative design. 2. Rationale is explored for the specific qualitative method used (e.g. ethnography, grounded theory, phenomenology). 3. Discussion about why the method chosen is most appropriate/relevant for the research question/aims i.e. research design is appropriate to address the study question. 4. Theoretical or philosophical perspective was identified for this study e.g. researcher's perspective. 5. Data collection methods are appropriate for the type of data required and for the specific qualitative method. 6. Triangulation of data sources was used. 7. Sampling was done until redundancy in data was reached.
Medium (2).	Study includes <u>at least three</u> of the following: 1. Rationale is given for the use of qualitative design. 2. Rationale is explored for the specific qualitative method used (e.g. ethnography, grounded theory, phenomenology). 3. Discussion about why the method chosen is most appropriate/relevant for the research question/aims i.e. research design is appropriate to address the study question. 4. Theoretical or philosophical perspective was identified for this study e.g. researcher's perspective. 5. Data collection methods are appropriate for the type of data required and for the specific qualitative method. 6. Triangulation of data sources was used. 7. Sampling was done until redundancy in data was reached.
Low (1).	Study includes <u>at least two</u> of the following: 1. Rationale is given for the use of qualitative design. 2. Rationale is explored for the specific qualitative method used (e.g. ethnography, grounded theory, phenomenology). 3. Discussion about why the method chosen is most appropriate/relevant for the research question/aims i.e. research design is appropriate to address the study question. 4. Theoretical or philosophical perspective was identified for this study e.g. researcher's perspective. 5. Data collection methods are appropriate for the type of data required and for the specific qualitative method. 6. Triangulation of data sources was used. 7. Sampling was done until redundancy in data was reached.
Zero (0).	Study includes <u>one or none</u> of the above criteria.

Appendix J: Criteria for WoE B in Qualitative Studies. Adapted from Walsh and Downe (2006) and Letts et al. (2007):

Criteria (See Appendix I)	Castro-Villarreal et al. (2014) (RQ2)	Clayton et al. (2020) (RQ2)	Donovan and Shepherd (2013) (RQ2)	Dunn and Mabry (2011) (RQ1)	Pavri (2010) (RQ1)	Pyle et al. (2011) (RQ2)	Stuart et al. (2011) (RQ1)	Swanson et al. (2012) (RQ2)	Werts et al. (2014) (RQ2)
1. Rationale is given for the use of qualitative design.	Yes (1). To analyse teachers' unbounded, open-ended expressions and voices regarding RtI. To understand their perceptions and knowledge.	No. Not specified by authors.	No. Not specified by authors.	Yes (1). To distinguish between teachers', administrators, school psychologists and special educators, experiences and perceptions of RtI implementation.	Yes (1). To ascertain special educators' perceptions about the feasibility of the RtI approach in the behavioural domain.	Yes (1). Stated that teachers' perspectives play a central role but have rarely been included in research. To explore their views and perspectives on RtI.	Yes (1). To gain a comprehensive and long-term view of their perspectives.	Yes (1). To examine special education teachers' perceptions of RtI. To provide a qualitative, in-depth description.	Yes (1). To gather opinions to determine their perceptions of the RtI process.
2. Rationale is explored for the specific qualitative method used (e.g. ethnography, grounded theory, phenomenology).	Yes (1). Grounded theory approach. It is appropriate for discovery research.	Yes (1). Case study. To examine how five schools have implemented PBIS and built structures to sustain it. To examine the relevant outcomes and needed improvements.	Yes (1). Case study. To assess the implementation of RtI for mathematics at one elementary and one middle school.	Yes (1). Phenomenology. The authors had a phenomenological interest in the perspectives and experiences of the practitioners who participated in the study. Additionally, they adhered to the precepts of grounded theory.	No. Not specified by author. It is stated that the author coded emerging themes using grounded theory approaches but no rationale is provided.	No. Not specified by authors.	No. Not specified by authors. It is stated that constant comparison was used via the grounded theory approach but no rationale is provided.	No. Not specified by authors.	No. Not specified by authors.

Criteria (See Appendix I)	Castro-Villarreal et al. (2014) (RQ2)	Clayton et al. (2020) (RQ2)	Donovan and Shepherd (2013) (RQ2)	Dunn and Mabry (2011) (RQ1)	Pavri (2010) (RQ1)	Pyle et al. (2011) (RQ2)	Stuart et al. (2011) (RQ1)	Swanson et al. (2012) (RQ2)	Werts et al. (2014) (RQ2)
3. Discussion about why the method chosen is most appropriate/relevant for the research question/aims i.e. research design is appropriate to address the study question.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by author.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.
4. Theoretical or philosophical perspective was identified for this study e.g. researcher's perspective.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	Yes (1). Data collection and analysis methods adhered to interpretivist research traditions. Theoretical triangulation ensured analytic comprehensiveness and connectivity to scholarly literature. Data was compared to the theory of change to examine the degree of fit between implementation and theory.	No. Not specified by author.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.

Criteria (See Appendix I)	Castro-Villarreal et al. (2014) (RQ2)	Clayton et al. (2020) (RQ2)	Donovan and Shepherd (2013) (RQ2)	Dunn and Mabry (2011) (RQ1)	Pavri (2010) (RQ1)	Pyle et al. (2011) (RQ2)	Stuart et al. (2011) (RQ1)	Swanson et al. (2012) (RQ2)	Werts et al. (2014) (RQ2)
5. Data collection methods are appropriate for the type of data required and for the specific qualitative method.	Yes (1). Survey with six open-ended qualitative items were examined. Grounded theory commonly uses open-ended questions.	Yes (1). Case study including interviews, focus groups and observations. Case study research typically includes multiple data collection techniques.	Yes (1). Qualitative methods were used, observations and semi-structured interviews, and a case-study approach. Multiple data collection techniques are used with case study.	Yes (1). Semi-structured interviews and a review of district documents, state websites, state policies and federal legislation related to RtI. Interviews are commonly used in phenomenological research.	Yes (1). Focus group interviews were implemented that are commonly used in grounded theory.	Yes (1). No specific qualitative method was noted. Focus groups are commonly used in qualitative design. They were conducted to explore teachers perspectives on the barriers and benefits to RtI implementation.	Yes (1). To address the research question, "what are teachers' perceptions of RtI?", two 90-minute focus groups and follow-up individual interviews were conducted with participants.	Yes (1). A qualitative, in-depth description of special education teachers' views. Focus groups, interviews, observed maths and reading instruction.	Yes (1). A survey was implemented with an opportunity for open-ended comments on questions to gain the perceptions of participants.
6. Triangulation of data sources was used.	No.	Yes (1). See above.	Yes (1). See above.	Yes (1). See above.	No.	No.	Yes (1). See above.	Yes (1). See above.	No.
7. Sampling was done until redundancy in data was reached.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by author.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.	No. Not specified by authors.
Overall Weighting for WoE B.	Yes (x 3). *Medium (2).*	Yes (x 3). *Medium (2).*	Yes (x 3). *Medium (2).*	Yes (x 5). *Medium (2).*	Yes (x 2). *Low (1).*	Yes (x 2). *Low (1).*	Yes (x 3). *Medium (2).*	Yes (x 3). *Medium (2).*	Yes (x 2). *Low (1).*

Note. 'RQ' stands for review question.

Appendix K: WoE B Mixed-Methods Methodological Relevance Weighting Criteria:

Weighting	Descriptor
High (3).	Study includes all of the following: 1. Described the justification for using a mixed methods approach to address the research question. 2. Described the design in terms of the purpose, priority and sequence of methods. 3. Described each method in terms of sampling, data collection and analysis. 4. Combination of qualitative and quantitative data collection-analysis techniques or procedures. 5. Integration of qualitative and quantitative data or results. 6. Described any limitation of one method associated with the presence of the other method. 7. Described any insights gained from mixing or integrating methods.
Medium (2).	Study includes at least three of the following: 1. Described the justification for using a mixed methods approach to address the research question. 2. Described the design in terms of the purpose, priority and sequence of methods. 3. Described each method in terms of sampling, data collection and analysis. 4. Combination of qualitative and quantitative data collection-analysis techniques or procedures. 5. Integration of qualitative and quantitative data or results. 6. Described any limitation of one method associated with the presence of the other method. 7. Described any insights gained from mixing or integrating methods.
Low (1).	Study includes at least two of the following: 1. Described the justification for using a mixed methods approach to address the research question. 2. Described the design in terms of the purpose, priority and sequence of methods. 3. Described each method in terms of sampling, data collection and analysis. 4. Combination of qualitative and quantitative data collection-analysis techniques or procedures. 5. Integration of qualitative and quantitative data or results. 6. Described any limitation of one method associated with the presence of the other method. 7. Described any insights gained from mixing or integrating methods.
Zero (0).	Study includes one or none of the above criteria.

Appendix L: Criteria for WoE B in Mixed-Methods Studies. Adapted from Pluye et al. (2009) and O'Cathain et al. (2008):

Criteria (See Appendix K)	Gates et al. (2013) (RQ1)	Regan et al. (2015) (RQ2)	Robinson (2016) (RQ2)	Wilcox et al. (2013) (RQ1)
1. Described the justification for using a mixed methods approach to address the research question.	Yes (x 1). The researchers used a sequential explanatory approach. Quantitative and qualitative survey data from phase one was collected and analysed before the interview and observations in phase two.	Yes (x 1). The researchers used a sequential explanatory approach to help discern challenges to RtI implementation. It allowed for an understanding of the circumstances under which a practice is most likely to be successful.	No. Not specified directly that a mixed methods approach was implemented. Results are divided into quantitative and qualitative results which is the only indication.	Yes (x 1). To examine teachers' perspectives on the RtI framework and its implementation in schools. Exploratory mixed methods design was used to describe the central phenomenon, RtI (qualitative data, focus groups, semi-structured interviews and quantitative data, a questionnaire).
2. Described the design in terms of the purpose, priority and sequence of methods.	Yes (x 1). Detailed account of phase one and phase two with surveys, interviews and observations receiving equal priority in the analysis followed by a series of analyses to identify patterns in the data.	Yes (x 1). Quantitative results provided a general picture of the research problem. Qualitative results enabled the researcher to refine, extend, or explain the general picture. Data was collected in two phases. Quantitative/qualitative questionnaire and interviews/observations.	No. Purpose and priority is not specified. Participants completed a survey. A description is provided of the questions in parts one to three and also the pilot sample of the survey. Very limited details on the design are provided.	Yes (x 1). Focus groups were used with interviews to provide a rich, in-depth description of the participants' experiences. Data from the quantitative questionnaire provided additional descriptive information about the RtI process. Detailed description on the design provided.

Criteria (See Appendix K)	Gates et al. (2013) (RQ1)	Regan et al. (2015) (RQ2)	Robinson (2016) (RQ2)	Wilcox et al. (2013) (RQ1)
3. Described each method in terms of sampling, data collection and analysis.	Yes (x 1). Phase One: Self-selected sample of special education resource teachers in elementary schools (N = 29) completed the survey. Phase Two: Researchers purposively selected the sample for phase two from the survey participants of phase one (N = 6). Once data from phase one was analysed, the researchers solicited the participants for phase two. Data was compared and integrated during the interpretation phase.	Yes (x 1). Phase 1: Purposeful sampling. Full-time teachers or administrators (N = 147). Response/return rate of 42.85% (N = 63). Completed qualitative/quantitative questionnaire based on RtI principles. Cronbach's alpha for quantitative analysis. Phase 2: Purposeful sampling of individuals from phase 1 (N = 10). Semi-structured interviews; 60 minute interview with RtI coordinator and observations. NVivo 8 software; step-by-step process of analysis and disconfirming evidence.	Yes (x 1). Eight diverse elementary schools participated. Surveys were completed by general and special education teachers (N = 200). A multistage sampling procedure was used. Criteria for the sample is provided. Surveys were disseminated and collected on the same day. Quantitative data were imported into SPSS for analyses. Qualitative data were analysed using topical and descriptive codes.	Yes (x 1). The participants were selected through purposeful, practical, accessible and convenience sampling with elements of homogeneity (N = 117). This sample consisted of two subsamples of participants. One subsample completed the online survey (N = 81). The second subsample participated in focus groups and semi-structured interviews before and after administration of the survey. Detailed description of analysis.
4. Combination of qualitative and quantitative data collection - analysis techniques or procedures.	Yes to both (x 1). Qualitative and quantitative survey; qualitative interview and observations. See above for analysis techniques.	Yes (x 1). See above.	Yes (x 1). Independent t tests were conducted. Open-ended questions analysed in multiple steps.	Yes to both (x 1). Online survey, focus groups and semi-structured interviews. Coding of qualitative data, descriptive analysis of questionnaire and Spearman's ρ correlation.

Criteria (See Appendix K)	Gates et al. (2013) (RQ1)	Regan et al. (2015) (RQ2)	Robinson (2016) (RQ2)	Wilcox et al. (2013) (RQ1)
5. Integration of qualitative and quantitative data or results.	Yes (x 1).	No. Results were not integrated.	No. Results were not integrated.	Yes (x 1).
6. Described any limitation of one method associated with the presence of the other method.	Not specified.	Not specified.	Not specified.	Not specified.
7. Described any insights gained from mixing or integrating methods.	Not specified.	Not specified.	Not specified.	Not specified.
Overall Weighting for WoE B in Mixed-Methods Studies. [a]	Yes (x 5). *Medium (2)*.	Yes (x 4). *Medium (2)*.	Yes (x 2). *Low (1)*.	Yes (x 5). *Medium (2)*.

Note. 'RQ' stands for review question.

[a] The current review sought to gather empirical data to investigate class teachers and special education teachers perspectives on response to intervention approaches to SEN within multi-tiered systems (review question 1) and their perspectives on the barriers and benefits to implementing multi-tiered systems (review question 2). Whilst it was acknowledged that qualitative design would be most appropriate for gathering participants perspectives (e.g. semi-structured interviews and focus groups), mixed-methods techniques can provide a richer data collection (Powell et al., 2008). In line with Gough (2007), a broader approach was adopted as poorly executed qualitative designs may have been included whilst omitting good quality mixed-method designs and vice versa. Thus, weighted judgements were applied to a broader range of evidence (Gough, 2007).

Appendix M: WoE C Criteria:

Weighting	Descriptor
High (3).	Study includes all of the following: 1. The research rationale was clear and evident from early in the study suggesting a definite research question and clear means of analysis. 2. The relevant population sample(s) were employed i.e. class teachers and special education teachers. Study examined both perspectives. 3. The appropriate methodological design and means of analysis were used. 4. Outcome is looking at participants perspectives of response to intervention approaches to SEN within MTSS (RQ1) and/or the barriers and benefits to implementing response to intervention approaches to SEN within MTSS (RQ2). 5. The demographics of the participants are provided in great detail to allow for further generalisation and to ensure that the sample is representative of the population. 6. The study was conducted in Ireland or the United Kingdom.
Medium (2).	Study includes at least four of the following: 1. The research rationale was clear and evident from early in the study suggesting a definite research question and clear means of analysis. 2. The relevant population sample(s) were employed i.e. class teachers and/or special education teachers. Study examined either or perspective. 3. The appropriate methodological design and means of analysis were used. 4. Outcome is looking at participants perspectives of response to intervention approaches to SEN within MTSS (RQ1) and/or the barriers and benefits to implementing response to intervention approaches to SEN within MTSS (RQ2). 5. The demographics of the participants are provided in great detail to allow for further generalisation and to ensure that the sample is representative of the population. 6. The study was conducted in another OECD member country.
Low (1).	Study includes at least two of the following: 1. The research rationale was clear and evident from early in the study suggesting a definite research question and clear means of analysis. 2. The relevant population sample(s) were employed i.e. class teachers and/or special education teachers. Study examined either or perspective. 3. The appropriate methodological design and means of analysis were used. 4. Outcome is looking at participants perspectives of response to intervention approaches to SEN within MTSS (RQ1) and/or the barriers and benefits to implementing response to intervention approaches to SEN within MTSS (RQ2). 5. The demographics of the participants are provided in great detail to allow for further generalisation and to ensure that the sample is representative of the population. 6. The study was conducted in another OECD member country.
Zero (0).	Study includes one or none of the above criteria.

Note. 'RQ' stands for review question. WoE C is a review-specific judgement. The studies under review may not have the type of sample central to the review questions or the type of evidence gathering and analysis (Gough, 2007). It considers if the study was undertaken in an appropriate manner so that the results can be generalised to answer the review questions (Gough, 2007).

Appendix N: WoE C Criteria and Rating:

Studies Included in the Review	Criteria 1 (See Appendix M)	Criteria 2 (See Appendix M)	Criteria 3 (See Appendix M)	Criteria 4 (See Appendix M)	Criteria 5 (See Appendix M)	Criteria 6 (See Appendix M)	**Overall Weighting for WoE C**
1. Castro-Villarreal et al. (2014) (RQ2).	Yes (x 1).	No. Teachers (*N* = 97). Only one perspective.	Yes (x 1).	Yes (x 1).	Yes (x 1). Gender, ethnicity, education and years of teaching experience.	OECD (USA).	*Medium (2)*.
2. Clayton et al. (2020) (RQ2).	No.	No. Leaders and teachers. Numbers recruited not specified. Only one perspective.	Yes (x 1).	Yes (x 1).	No. Demographic information is not provided.	OECD (USA).	*Medium (2)*.
3. Donovan and Shepherd (2013) (RQ2).	No.	Yes (x 1). Classroom math instructors, paraprofessionals, a math specialist, school principal and special educators (*N* = 14).	Yes (x 1).	No. While it is related to SEN, it is looking at the benefits and challenges associated with implementing RtI in the area of mathematics only.	Yes (x 1). Role, certification, years of teaching experience and gender.	OECD (USA).	*Medium (2)*.
4. Dunn and Mabry (2011) (RQ1).	Yes (x 1).	Yes (x 1). Teachers, special education teachers, school and district administrators, school psychologists, a literacy and math specialist (*N* = 16).	Yes (x 1).	Yes (x 1).	No. Only years of teaching experience and role is provided.	OECD (USA).	*Medium (2)*.

Studies Included in the Review	Criteria 1 (See Appendix M)	Criteria 2 (See Appendix M)	Criteria 3 (See Appendix M)	Criteria 4 (See Appendix M)	Criteria 5 (See Appendix M)	Criteria 6 (See Appendix M)	**Overall Weighting for WoE C**
5. Gates et al. (2013) (RQ1).	Yes (x 1).	No. Special education resource teachers. Only one perspective. Phase 1: *N* = 29. Phase 2: *N* = 6.	Yes (x 1).	Yes (x 1).	Yes (x 1). Gender, ethnicity, licensure area, years of teaching experience, years implementing RtI.	OECD (USA).	*Medium (2)*.
6. Pavri (2010) (RQ1).	Yes (x 1).	No. Special education teachers (*N* = 9). Only one perspective.	Yes (x 1).	Yes (x 1).	Yes (x 1). Gender, age, ethnicity, highest education, grade levels taught, type of educational setting, years of teaching experience, years teaching students with disabilities and type of disabilities served.	OECD (USA).	*Medium (2)*.
7. Pyle et al. (2011) (RQ2).	Yes (x 1).	No. Teachers (*N* = 13). Only one perspective.	Yes (x 1).	No. While it is looking at teachers perspectives of the barriers to RtI implementation, it was a pilot project and relates more to the actual implementation of RtI rather than SEN specifically.	Yes (x 1). Gender, years of teaching experience and experience of RtI training.	OECD (USA).	*Medium (2)*.

Studies Included in the Review	Criteria 1 (See Appendix M)	Criteria 2 (See Appendix M)	Criteria 3 (See Appendix M)	Criteria 4 (See Appendix M)	Criteria 5 (See Appendix M)	Criteria 6 (See Appendix M)	**Overall Weighting for WoE C**
8. Regan et al. (2015) (RQ2).	Yes (x 1).	Yes (x 1). Specifically targeted full-time teachers, special education teachers or administrators who worked with students in academic areas related to RtI (*N* = 63).	Yes (x 1).	Yes (x 1).	Yes (x 1). Elementary (48%) and secondary levels (52%). Female (82.5%) and Male (17.5%). Ethnicity, years of teaching experience and 79.4% had a MSc.	OECD (USA).	*Medium (2).*
9. Robinson (2016) (RQ2).	Yes (x 1).	Yes (x 1). Combined sample of general and special education teachers (*N* = 200).	No. Surveys were disseminated and collected on the same day and the researcher was present on the day which may have influenced how participants responded. A major limitation of the study is that there was a lack of an observational component to triangulate teachers' perceptions with other sources of data.	No. While it is related to SEN, the primary focus is on culturally responsive beliefs and practices.	No. Ethnicity, position, role in RtI, years of experience and years at school. Gender not specified.	OECD (USA).	*Low (1).*

Studies Included in the Review	Criteria 1 (See Appendix M)	Criteria 2 (See Appendix M)	Criteria 3 (See Appendix M)	Criteria 4 (See Appendix M)	Criteria 5 (See Appendix M)	Criteria 6 (See Appendix M)	**Overall Weighting for WoE C**
10. Stuart et al. (2011) (RQ1).	No.	Yes (x 1). Teachers (*N* = 4); Reading Specialist (*N* = 1); Special Education Teacher (*N* = 3).	Yes (x 1).	Yes (x 1).	Yes (x 1). Gender, ethnicity, licensure and years of teaching experience.	OECD (USA).	*Medium (2).*
11. Swanson et al. (2012) (RQ2).	Yes (x 1).	No. Special education teachers (*N* = 17). Only one perspective.	Yes (x 1).	Yes (x 1).	Yes (x 1). Gender, ethnicity, level of education, type of training, certification and certification method.	OECD (USA).	*Medium (2).*
12. Werts et al. (2014) (RQ2).	No. Purpose of study was outlined but there was no definite research question.	No. Special education teachers (*N* = 211). Only one perspective.	Yes (x 1).	Yes (x 1).	No. Size of district, highest degree, role, years in education and training.	OECD (USA).	*Medium (2).*
13. Wilcox et al. (2013) (RQ1).	No. Research questions were implemented into findings.	No. Teachers (*N* = 117). Only one perspective.	Yes (x 1).	Yes (x 1).	No. Limited information. State and grade level.	OECD (USA).	*Medium (2).*

Note. 'RQ' stands for review question.

Appendix O: Recruitment E-mail:

Subject: Participants being sought for a research study.

To whom it may concern,

My name is Lisa Moran, and I am a postgraduate student attending Mary Immaculate College. I am studying for a Doctorate in Child and Educational Psychology under the supervision of Siobhán O'Sullivan and Dr. Margaret Farrelly. We are conducting research into the utility of the Continuum of Support framework.

I am emailing to ask if your school would like to participate in this study. Your participation is completely voluntary, and your answers will be anonymous. I have attached the *Participant Information Letter* for further information on this research study. We are recruiting qualified mainstream class teachers' and special education teachers. What will be required of them to do is outlined in the attached document. I would be grateful if this e-mail could also be circulated to them for their attention.

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC). If you have any concerns about this study and wish to contact an independent authority, you may contact Mary Collins, MIREC Administrator, Research and Graduate School, Mary Immaculate College, South Circular Road, Limerick. Telephone: 061-204980 / E-mail: mirec@mic.ul.ie

If you have any questions, please do not hesitate to contact me 14041979@micstudent.mic.ul.ie

Thank you for your time.

Lisa Moran,
Postgraduate Student,
Mary Immaculate College.

Appendix P: Information Letter for Participants:

An Exploration into the Utility of the Continuum of Support Framework

Participant Information Letter

What is the project about?
In September 2017, the new model for the allocation of special education teaching resources, in mainstream schools, was introduced by the Department of Education and Skills (the Department). This new model is a move away from a diagnostic approach towards a needs-based allocation system that fosters inclusion and effective teaching and learning. Under the new model, the Department provides the resources directly to the schools. The schools then allocate these resources flexibly to students according to their priority learning needs. The identification of students' educational needs is central to this new model and it aligns itself fundamentally with the NEPS model of service delivery.

However, there is evidence to suggest that some schools are not aware of, or are not following, the three-staged problem-solving model recommended by NEPS, the Continuum of Support. They require further support in implementing problem-solving models to meet the needs of pupils and to monitor their progress. This project, therefore, will look at the utility of the Continuum of Support Framework within schools in supporting mainstream primary class teachers and special education teachers, in identifying and monitoring pupils' educational needs.

Who is undertaking it?
My name is Lisa Moran, and I am a postgraduate student attending Mary Immaculate College. I am studying for a Professional Doctorate in Educational and Child Psychology in the Department of Educational Psychology, Inclusive and Special Education, under the supervision of Siobhán O'Sullivan and Dr. Margaret Farrelly. The current study will form part of my thesis.

Why is it being undertaken?
The objective of the project is to explore the utility of the Continuum of Support framework within an Irish Educational context in supporting schools to identify and support pupils' educational needs.

What are the benefits of this research?
In terms of direct benefits of this research, it will provide a more in-depth exploration of the current model of support and also, class teachers' and special education teachers' perspectives on both the supporting and constraining factors that impinge on their activities at the Classroom Support, School Support and School Support Plus stages.

Exactly what is involved for the participant (time, location, etc.)
The study will consist of inviting participants to firstly complete a short demographic questionnaire. Participants will then partake in a one-to-one semi-structured interview with

them typically covering the duration of thirty minutes to more than an hour. These questions will relate to the Continuum of Support Framework. This will all be done virtually via Zoom.

Right to withdraw
Your anonymity is assured, and you are free to withdraw from the study at any time without giving a reason and without consequence.

How will the information be used / disseminated?
The data from the research will be combined with that of the other participants in this study and used to form the results section of my thesis. Summary data only will appear in the thesis, individual participant data will not be shown. Anonymised quotes from individual participants may be used in the researcher's thesis or publications arising from the research. The focus of the research is on the researcher's reflections and responses of the participants gathered throughout the study.

How will confidentiality be kept?
All information gathered will remain confidential throughout the research process and will not be released to any third party. No identifiable details will be used, including names of participants, schools, and regional locations. Pseudonyms will be applied throughout the research rather than the participant's name to maintain their anonymity.

Once the one-to-one semi-structured interviews have been audio-recorded and transcribed, the completed transcriptions will be encrypted and stored electronically on the researcher's password-protected laptop and on a password-protected USB. The audio recordings will be deleted immediately after the transcriptions have been completed.

What will happen to the data after research has been completed?
In accordance with the MIC Record Retention Schedule, all anonymised data may be stored indefinitely.

Contact details:
If at any time you have any queries / issues with regard to this study, my contact details are as follows:
Lisa Moran (Principal Investigator),
E-mail: 14041979@micstudent.mic.ul.ie
Contact number to be provided following participant recruitment.

If you have any concerns about this study you may contact:
Siobhán O'Sullivan (First Supervisor),
E-mail: Siobhan.OSullivan@mic.ul.ie
Dr. Margaret Farrelly (Second Supervisor),
E-mail: Margaret.Farrelly@mic.ul.ie

This research study has received Ethics approval from the Mary Immaculate College Research Ethics Committee (MIREC).

If you have any concerns about this study and wish to contact an independent authority, you may contact:
Mary Collins, MIREC Administrator, Research and Graduate School, Mary Immaculate College, South Circular Road, Limerick, Telephone: 061-204980 / E-mail: mirec@mic.ul.ie

Appendix Q: Informed Consent Form:

Research Study on the Utility of the Continuum of Support Framework

Informed Consent Form

- I have read and understood the **Participant Information Letter**.
- I understand what the project is about, and what the results will be used for.
- I am fully aware of all of the procedures involving myself, and of any risks and benefits associated with the study.
- I know that my participation is voluntary and that I can withdraw from the project at any stage without giving any reason and without consequence.
- I am aware that my results will be kept confidential.
- I am aware that in accordance with the MIC Record Retention Schedule, anonymised data may be retained indefinitely.
- I have read this form completely, I am 18 years of age or older and am happy to take part in this study.
- I consent to participate in the one-to-one semi-structured interviews and to having the interviews audio-recorded.

  Yes ☐ No ☐

Participant Name (Printed): _____

Participant Name (Signature): _____

Date: _____

Investigator Name (Printed): _____

Investigator Name (Signature): _____

Date: _____

Appendix R: Demographic Questionnaire:

Question 1 (Short answer):
What is your gender?
Gender:

Question 2 (Multiple choice):
What age are you?
20-30
31-40
41-50
51-65

Question 3 (Short answer):
What is your nationality?
Nationality:

Question 4 (Short answer):
What is the highest level of education you have achieved? Please state full title.
Education:

Question 5 (Short answer):
What is your current role? (e.g. Teacher, Special Education Teacher etc.).
Role:

Question 6 (Short answer):
What class do you teach? (To be answered if you are a class teacher).
Class:

Question 7 (Short answer):
How many years of experience do you have working in the field of education?
Number of Years:

Question 8 (Short answer):
How many students are in your school with identified special educational needs (SEN)?
Number of Students:

Question 9 (Short answer):
Which problem-solving model are you currently implementing to identify student's educational needs?
Model:

Question 10 (Short answer):
Which province do you teach in? Connacht, Leinster, Munster, Ulster?
Province:

Appendix S: Questions for One-to-One Semi-Structured Interviews:

Project Title: *The Utility of the Continuum of Support Framework in Supporting Class Teachers and Special Education Teachers in the Identification and Monitoring of Pupils Educational Needs.*

<u>Question 1</u>: Main Question (e.g. 1.0) followed by prompt questions (e.g. 1.1):

1.0. How do you gather the information that you need during the problem-solving process, to inform your decision making, so that the greatest level of support is provided to the pupils with the greatest level of needs?

1.1. What observational records do you use to help identify pupils' needs?

1.2. What types of assessments do you use that help with the screening and identification of pupils' needs?

1.3. What problem-solving frameworks are being employed?

1.4. Do these assessments produce information that leads to improvements in the teaching and learning of the pupil?

1.5. How do you integrate the information from pupils, parents, and external professionals to help with the identification of needs?

1.6. What are the areas of strength with the identification of pupil's needs in your school?

1.7. What are the areas for improvement, if any, with the identification of pupil's needs?

<u>Question 2</u>:

2.0. The quality of teacher problem solving and decision making, is a key variable in linking sound research to effective practice. It supports and increases pupil standards and attainments. NEPS advocates the three-staged Continuum of Support framework. What is your perspective on this problem-solving model of assessment and intervention?

2.1. What is your understanding of this problem-solving model of assessment and intervention?

2.2. Do you follow the three-staged Continuum of Support framework?

2.3. Did you receive training in implementing the Continuum of Support framework? If so, by who? Have you undertaken any CPD in relation to SEN? Can you provide examples?

2.4. How do you use this framework to provide a documented and staged-approach to the identification of pupils' needs?

2.5. Do you consider individual needs across a broad range, including academic, social, communication, emotional and behavioural?

2.6. Does implementing the Continuum of Support framework allow you to reflect on your own teaching strategies?

2.7. Does it allow you to reflect on the pupils learning and progress?

2.8. What would you perceive to be the main strengths with the Continuum of Support framework?

2.9. What do you feel are the supporting/constraining factors at the classroom support stage?

2.10. What do you feel are the supporting/constraining factors at the school support stage?

2.11. What do you feel are the supporting/constraining factors at the school support plus stage?

2.12. What are the areas for improvement, if any, with the Continuum of Support framework?

Question 3:

3.0. Do you feel that the Continuum of Support framework allows you to become more active thinking partners in the decision making process?

3.1. Do you feel that you are delivering core components with a real understanding of why an approach has to be done in a particular way to ensure the increased likelihood of positive change for the pupil?

3.2. From your perspective, by implementing the Continuum of Support framework, what would the desired outcome for the pupil be? What are you hoping to achieve?

Question 4:

4.0. How do special education teachers and class teachers collaborate to meet the needs of pupils with special educational needs and to ensure their progress in school?

4.1. Are you supported with in-class supports, group and individual withdrawal?

4.2. How do you monitor and report on the progress of the pupil?

4.3. How do you monitor, and problem solve at group level?

4.4. How do you monitor, and problem solve at class level?

4.5. How do you monitor, and problem solve at whole-school level?

4.6. How do you set targets/devise plans for pupils which identify needs that can be monitored and recorded?

Question 5:

5.0. By following the Continuum of Support, do you feel that your school allocates its resources to effectively meet the needs of pupils with special educational needs?

5.1. What individuals/professions are involved when implementing this framework?

5.2. What other individuals/professions do you feel should be involved?

Question 6:

6.0. When devising support plans, how do you use the Continuum of Support to identify priority learning needs at all three levels (Classroom Support, School Support and School Support plus)?

Question 7:

7.0. Do you feel that the new model for the allocation of special education teaching resources for mainstream schools aligns itself well with the Continuum of Support framework?

7.1. Are there any legislations/professional guidelines that guides your work when implementing the Continuum of Support framework to identify and respond to pupils' needs.

Appendix T: Example of Interview Transcript:

Project Title: *The Utility of the Continuum of Support Framework in Supporting Class Teachers and Special Education Teachers in the Identification and Monitoring of Pupils Educational Needs.*

Question 1:

1.0. Researcher/Interviewer: My first question relates to the gathering of information. How do you gather the information that you need during the problem-solving process, to inform your decision making, so that the greatest level of support is provided to the pupils with the greatest level of needs?

P9: In order to gather any information required, we look at where the student is in terms of the Continuum of Support. Is the child at classroom support, school support or school support plus? Once identified, this then enables us to identify what assessment we need to carry out in each case. Some examples of what I would use include:

- *Basic Needs Checklist.*
- *Whole Class Checklists.*
- *Teacher Observations.*
- *Teacher Assigned Tests and Tasks.*
- *Micra and Sigma Tests from the previous year.*
- *I also would do literacy assessments. The Schonell Reading and Spelling Test, comprehension at class level and vocabulary tests.*
- *In terms of numeracy assessments, I would use tables assessments and I would also look at their mathematic end of year assessment from the previous academic year.*
- *Teacher interviews are beneficial as too are parent interviews and the parent teacher meeting at the start of the academic year. I would also look at previous assessments carried out at an earlier age or previous class level and also, outside agency reports and assessments with parental consent. Again, all assessments carried out are dependent on which level of the Continuum of Support the child is on.*

Researcher/Interviewer: Thank you for all that information, that is great and really comprehensive.

1.1. Researcher/Interviewer: What observational records do you use then to help identify pupils' needs?

P9: Each child will have their own Self-Assessment and Learning Folder or SALF. I would also use timed activities and complete a previous teacher questionnaire so looking at what

they like and dislike. This is usually carried out at the beginning of the academic year so that their interests can be taken into consideration when designing class activities. I would then complete class projects and checklists. Sorry, that is all I can think of for now.

Researcher/Interviewer: No that is great, thank you.

1.2. Researcher/Interviewer: So, my next question relates to what types of assessments do you use that help with the screening and identification of pupils' needs?

P9: Okay, so I would use teacher designed assessments, diagnostic tests, standardized tests, continuous class level assessments, behavioural assessments, and self-assessments. I would also use learner type assessments to identify what types of learners are in the class and what methodologies will need to be incorporated into the class/group and/or individual lessons to suit all children.

1.3. Researcher/Interviewer: Okay, what problem-solving frameworks are being employed?

P9: The COS or Continuum of Support is being implemented across the school. As a school we use the COS, sorry Continuum of Support, to identify children's educational needs. We begin by creating a student support file for each child and identifying each child's needs be it emotional, social and/or academic. We then carry out several assessments and checklists, both at whole class and/or individual level. Again, all case dependent. Once the assessments have been carried out, interventions and supports are put in place to assist and aid in scaffolding every child's development. These supports are varied and targeted to best suit the individual's learning style and need. Throughout the year then, we will reassess the children and see how, if, and which interventions are working and where further implementations are required. Some interventions might be in class support, small group or in some cases, withdrawal for small group or one-to-one intervention. Academic assessment folders are in place at each class level and an assessment calendar has been made to ensure each class teacher and special education teacher is facilitating, correcting and using the information gathered to help future teaching and improvements for each child at their individual levels.

1.4. Researcher/Interviewer: At the beginning, we spoke about all of the different assessments that you use. Do you feel that these assessments produce information that leads to improvements in the teaching and learning of the pupil?

P9: Yes, most definitely as all information gathered is used for future teaching and learning of all children at their own individual levels.

1.5. Researcher/Interviewer: How do you integrate the information from pupils, parents, and external professionals to help with the identification of needs?

P9: Meetings are typically arranged.

1.6. Researcher/Interviewer: Moving on then to the next question, what do you feel are the areas of strength with the identification of pupil's needs in your school?

P9: All individuals are catered for and progress at their own level. Each child's needs are met.

1.7. Researcher/Interviewer: What do you feel are the areas for improvement, if any, with the identification of pupil's needs?

P9: Time constraints would be a huge problem for us. There is too much paperwork and documentation to be completed. Having more time to get it all done in the school day would be a huge area for improvement really. The current system is just not working.

<u>Question 2</u>:

2.0. Researcher/Interviewer: Thanks so much for all your responses so far. Moving on then, the quality of teacher problem solving and decision making, is a key variable in linking sound research to effective practice. It supports and increases pupil standards and attainments. NEPS advocates the three-staged Continuum of Support framework. What is your perspective firstly on this problem-solving model of assessment and intervention?

P9: It is a very good problem-solving model in place if implemented across all classes and started the minute the child enters the school. It requires a lot of documentation and in large classes, class sizes are an average of 30 in our school, it is really hard to try and document everything. It just is not possible unfortunately.

2.1. Researcher/Interviewer: What is your understanding then of this problem-solving model of assessment and intervention?

P9: It requires all staff to be on the same page and needs to be completed throughout the year on an ongoing basis and therefore, if one or more teachers forget to update or input information it can be very infuriating.

2.2. Researcher/Interviewer: Earlier, you spoke about the Continuum of Support being implemented across your school. Do you yourself follow the three-staged Continuum of Support framework?

P9: Yes, most definitely I do.

2.3. Researcher/Interviewer: Did you receive any training at all in implementing the Continuum of Support framework? If so, by who? Have you undertaken any CPD in relation to SEN? Can you provide examples?

P9: No, I do not know of anyone that has in this school either. The most recent course I completed then was in November 2019 and it was an introduction to teaching pupils with Down Syndrome in the mainstream classroom. It went through their learning profile and teaching and learning strategies. This was done voluntarily in my own time.

2.4. Researcher/Interviewer: That is perfect thanks so much. How do you use this framework then to provide a documented and staged-approach to the identification of pupils' needs?

P9: Each child in our school has a Continuum of Support, and each class has a class Continuum of Support folder. The folder follows the class up every year of the school then and information, meetings, and movements within the three levels is implemented. Children in our

school are ability grouped and often children will move group as the year progresses, and the children themselves improve or regress.

2.5. Researcher/Interviewer: Moving onto the next question, do you consider individual needs across a broad range, including academic, social, communication, emotional and behavioural?

P9: Yes, this has always been a priority for me as no two kids are the same.

2.6. Researcher/Interviewer: And do you feel that by implementing the Continuum of Support framework, it allows you to reflect on your own teaching strategies?

P9: Yes and no to be brutally honest. It takes up a lot of time and can prevent teachers from teaching at the best of their ability as staff have found that they spend so much time carrying out assessments, correcting, and assigning groups etc., that the quality of the teaching can be negatively affected unfortunately. On the contrary, some teachers find it beneficial as they can use all of the information gathered, to identify what strategies would work best in their class and with the various children.

2.7. Researcher/Interviewer: Does it allow you to reflect on the pupils learning and progress then? What would your opinion be?

P9: Yes, but again time does not allow for this. There really should be several hours in the week assigned to let teachers go through their folders properly and spend time planning for future teaching and lessons.

2.8. Researcher/Interviewer: Moving onto the next question then. What would you perceive to be the main strengths with the Continuum of Support framework?

P9: If a new child comes into your class, you can read the Continuum of Support file and see exactly what assessments have been carried out, what their strengths and weaknesses are, and what has already been in place for him or her, either in a previous year or another school. It really gives you an insight into the child's learning needs and how they have progressed or regressed.

2.9. Researcher/Interviewer: What do you feel then are the supporting and/or constraining factors at the classroom support stage?

P9: Supporting factors would be that it enables collaboration for all staff when planning, teaching, and assessing all children. This is extremely beneficial. Constraining factors then would be that it is extremely time consuming, and some teachers might not have updated them the previous year. Also, a lack of resources really hinders my work.

2.10. Researcher/Interviewer: That is brilliant thanks for that. What do you feel then are the supporting/constraining factors at the school support stage?

P9: Again, the collaboration with staff is crucial at this stage but trying to find the time to meet and sit down, discuss a child, and make a plan is really tough, and it's hard trying to balance it all.

2.11. Researcher/Interviewer: What do you feel are the supporting/constraining factors at the school support plus stage then?

P9: It is probably more or less the same as what I have just said for the other two stages sorry. Although at this stage, a constraining factor would be not having immediate access to Educational Psychologists when they are badly needed. The waiting lists are so long in our school and how do you prioritize one kid over another? That is something that I struggle greatly with at this stage and again, a lack of resources.

2.12. Researcher/Interviewer: No, that is perfect, thanks so much again. Okay, so what are the areas for improvement, if any, with the Continuum of Support framework then?

P9: It really needs a better layout. It needs to be a lot easier to explain to both parents and staff as often, less is more. It is also a very wordy and large document which could be condensed into a more compact form. It really just needs to be more practical.

Question 3:

3.0. Researcher/Interviewer: Moving on then, do you feel that the Continuum of Support framework allows you to become more active thinking partners in the decision-making process?

P9: Yes, most definitely but again, if time allows. Also, if staff are willing to collaborate.

3.1. Researcher/Interviewer: Do you yourself feel then that you are delivering core components with a real understanding of why an approach has to be done in a particular way to ensure the increased likelihood of positive change for the pupil?

P9: Yes, I would be fairly confident with regards to my abilities in this area.

3.2. Researcher/Interviewer: And, from your perspective, by implementing the Continuum of Support framework, what would the desired outcome for the pupil be? What are you hoping to achieve?

P9: You would really hope that the child would be moving from the tier that they start in, to a more independent tier and that supports can be taken away gradually, as the children progress. An example would be moving from school support plus to school support and again, moving from school support to classroom support etc.

Question 4:

4.0. Researcher/Interviewer: Okay, my next question relates to how do special education teachers and class teachers collaborate to meet the needs of pupils with special educational needs and to ensure their progress in school?

P9: Continuous meetings after school hours would be our main method of collaboration.

4.1. Researcher/Interviewer: Are you supported then with in-class supports, group and individual withdrawal?

P9: Yes, we are.

4.2. Researcher/Interviewer: Okay, how do you monitor and report on the progress of the pupil?

P9: I follow an assessment calendar with all tests, assessments etc. marked in, and I input all of the data into the Continuum of Support folder then. Meetings are arranged, conversations are had, and I would always do check ins with the teachers, parents', and the previous class teachers themselves.

4.3. Researcher/Interviewer: How do you monitor, and problem solve at group level then?

P9: Again, I follow the same procedure of an assessment calendar with all of the tests, assessments etc., and I input all data into the folder then. Meetings are conducted, and I again have conversations and check ins with their teachers, parents', and again, the previous class teachers themselves.

4.4. Researcher/Interviewer: Okay, how do you monitor, and problem solve at class level?

P9: Sorry, I follow the same plan of an assessment calendar with all tests, assessments etc., and input data into the folder. Meetings, conversations and check ins with teachers, parents, and previous teachers.

4.5. Researcher/Interviewer: No that is perfect, thank you. How do you monitor, and problem solve at the whole-school level then?

P9: Okay, the whole-school level is different again. Generally, we would conduct whole school staff meetings. We would also have small teacher group sessions and discussions.

4.6. Researcher/Interviewer: Okay, how do you set targets/devise plans for pupils which identify needs that can be monitored and recorded?

P9: We would use the Continuum of Support in our school and all school and class level assigned tests, checklists, plans etc., would be factored into this.

<u>Question 5</u>:

5.0. Researcher/Interviewer: By following the Continuum of Support, do you feel that your school allocates its resources to effectively meet the needs of pupils with special educational needs?

P9: Yes, but again it is difficult to determine which students get access to the resources.

5.1. Researcher/Interviewer: Moving onto the next questions then. So, what individuals/professions are involved when implementing this framework in your school?

P9: Okay, so the class teacher would typically start the process, parents, special education teachers, outside agencies, again if applicable and if they are available, and the previous teachers themselves, again if appropriate.

5.2. Researcher/Interviewer: What other individuals/professions do you feel should be involved then, if any?

P9: I do not think that there is anyone else that I would involve in this process to be honest with you, other than those who I have already mentioned. Obviously, it would be hugely beneficial for the school and the individual staff members, children, and parents, if external agencies and support from psychologists, was more readily available. Sometimes, we just do not know all the answers and then when they do come to the school, often they have too many kids to see that some kids fall through the cracks. I do feel that we have been given way too much flexibility.

Question 6:

6.0. Researcher/Interviewer: Okay, we are moving towards the last few questions. When devising support plans, how do you use the Continuum of Support to identify priority learning needs at all three levels (Classroom Support, School Support and School Support plus)?

P9: As a school, we came up with specific and tailored tests, templates, and assessments to assess all children pre, during and at the end of every academic year. This is a long, time-consuming process, with all templates in the Continuum of Support, stored in each class folder, where each child has their own section in either School Support Plus, School Support or Classroom Support. This is dependent again on where they lie at present.

Question 7:

7.0. Researcher/Interviewer: Do you feel then that the new model for the allocation of special education teaching resources for mainstream schools aligns itself well with the Continuum of Support model?

P9: To be honest with you, I am not that knowledgeable on the new model to be able to comment. Sorry.

7.1. Researcher/Interviewer: No, that is perfectly fine. The final question then relates to are there any legislations/professional guidelines that guides your work when implementing the Continuum of Support framework to identify and respond to pupils' needs.

P9: Websites and resources that I find really beneficial and that really help guide my work would include the NCSE online webpage, the NEPS Special Needs Resource Pack, and the NEPS Special Needs Guidelines for Primary.

Researcher/Interviewer: Brilliant, thank you so much. I have reached the end of my questions so I will just stop the recording here. Thank you so much again for your time today.

Appendix U: Ethical Approval:

Mary Immaculate College Research Ethics Committee

MIREC-4: MIREC Chair Decision Form

APPLICATION NO. A20-011
1st Amendment April 2020

1. PROJECT TITLE

An Exploration into the Utility of the Continuum of Support Framework in Supporting Teachers in the Identification and Monitoring of Students Educational Needs.

2. APPLICANT

Name:	Lisa Moran
Department / Centre / Other:	EPISE
Position:	Postgraduate Researcher

3. DECISION OF MIREC CHAIR

☐	Ethical clearance through MIREC is required.
☐	Ethical clearance through MIREC is not required and therefore the researcher need take no further action in this regard.
✓	Ethical clearance is required and granted. Referral to MIREC is not necessary.
☐	Ethical clearance is required but the full MIREC process is not. Ethical clearance is therefore granted if required for external funding applications and the researcher need take no further action in this regard.
☐	Insufficient information provided by applicant / Amendments required.

4. REASON(S) FOR DECISION

A20-011 1st Amendment Request - Lisa Moran - An Exploration into the Utility of the Continuum of Support Framework in Supporting Teachers in the Identification and Monitoring of Students Educational Needs.

I have reviewed the amendments to this application and I believe they satisfy MIREC requirements. They are, therefore, approved.

5. DECLARATION (MIREC CHAIR)

Name (Print):	Dr Áine Lawlor
Signature:	
Date:	15th April 2020

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Appendix V: Inductive and Deductive Themes and Corresponding Activity Theory Nodes:

Activity Theory Node	Themes	Subthemes	Codes
Subject *A group taking action. The person whose perspective is being examined. The subject node in this research is class teachers and special education teachers.*	Perceptions of the role of class teachers.	Perceived lack of understanding of the role of the class teacher in setting targets.	Roles and responsibilities (PR R).
	Perceptions of problem-solving frameworks.	Class teacher's role in implementing problem-solving frameworks.	Limited awareness (PR PSF).
		Shared awareness of the need for training in an additional framework.	Shared awareness (PR TAF).
		Continuum of Support as a problem-solving framework.	Confusion (PR CS).
	Stages of the Continuum of Support are repetitive.	Repetition of documents.	Repetitive stages (SC RD).
	Continuum of Support as a reflective tool.	Effective tool of reflection.	Model of reflection (RT ER).
Object *What is being worked on or acted upon. The object node in this research is concerned with the activities undertaken by class teachers and special education teachers when implementing the Continuum of Support framework.*	*Problem-Solving Process:* Assessment work.	Screening and identification. Conflicting views on the contribution of assessments to teaching strategies.	Students' needs (SI SN). Improvements in teaching and learning (TA ATL).
	Intervention work.	Conflicting views on determining success.	Awareness of success (IW DS).
	Consultation work.	Consulting with previous class teachers. Consulting with parents. Continuous consultation with support team.	Linking in (CW PCT). What helps their child (CW CP). Ongoing process (CW ST).
	Collaborative work.	Routine monitoring and observational work at each stage.	Monitoring (CO MOW).
Outcome *What is hoped to be achieved.*	Comprehensive student support plans.	Developing resources. Setting targets.	Resources (SSP R). Targets (SSP ST).
	Identification of needs.	Clear steps at all levels of support. Curriculum access for pupils with SEN.	Level of needs (IN CS). Primary School Curriculum (IN PSC).
	Allocating resource time.	Aids teachers in supporting students.	Resource hours (RT SS).

Rules *The supportive/constraining factors that impinge on activities.*	*Constraining Factors:*		
	Time consuming process/Administrative burden.	Coordinating assessment information to formulate support plans. Support plans are lengthy. Busy school environments.	Lengthy process (TC FSP). Detailed (TC SPL). Lacking in time (TC BSE).
	Long waiting lists.	Initial stages of differentiating. Prioritisation of students is challenging. Missing windows of opportunities.	Delays process (TC ISD). Awareness of needs (WL PS). Support for all (WL MWO).
	Difficulties with knowing when to initiate the next stage of the continuum.	Differentiating and meeting the specific needs of each student.	Professional judgements (NS DMN).
	Difficulties interpreting assessment results.	Developing targets from assessment scores.	Interpreting results (IR AS).
	Special education teachers in a supervisory role.	Targets not being met.	Absent class teachers (SR TBM).
	Lack of resources hindering work at all three levels.	Adapting teaching for student's needs. Delays with assessments and obtaining results. Additional Learning Support/Resource Teachers required.	Inclusion (LR HT). Not meaningful (LR DAR). Demand on support services (LR IC).
	Supportive Factors:		
	Colleague support.	Collaboration on successes and setbacks. Collaboration on allocation of resources.	Teamwork (CS SS). Resource allocation (CS AR).
	Parental support.	Consistency across environments. Collaborative target setting.	Relationships and communication (PS CE). Shared goals (PS TS).
	Documentary support/templates.	Continuum of support templates. Reflect on students learning. Reflect on teaching. Quality planning and teaching.	Templates (LA CST). Reflective tool (LA RSL). Awareness (LA RT). High quality (LA QPT).
	Active thinkers.	Decision making process.	Thinking (AT DMP).
Community *Who else is involved in the activity?*	Working together at a systems level.	Previous class teachers and family.	Systems working (SL TF).
	Input from external professionals.	Recommendations not matching pupils' educational needs. Educators practice being informed by external professionals.	Educational psychologists (EX EP). Informing practice (EX ITP).

		Overburdened with pupils. Need for more consistent support.	Limited support (EX OS). Professional support (EX CS).
Division of Labour *How is the work shared?*	Classroom support initiated and led by class teachers.	Compiling student support files. Collating assessment information. Initiating the problem-solving process. Specific focus on academic targets.	Classroom support (CS SF). Collating (CS CI). Initiation of process (CS IP). Focus of support (CS AT).
	School support in conjunction with Special Education Teachers.	Compiling student support plans. Social, communication, emotional and behavioural goals.	School support (SS SP). Needs along a continuum (SS NC).
	School support plus with all relevant parties.	Input from external professionals.	Outside specialists (SSP IEP).
Tools/Artefacts *Can be concrete (machine or instrument) or abstract (language, processes or frameworks).*	*Concrete Tools:* Assessment tools to inform decision making.	Gathering of information through formal/informal assessments.	Problem-solving process (AT GI).
	Circular No 0013/2017.	Expert support required to implement special education teaching allocation.	Awareness of (C SET).
	Legislations that guide work.	EPSEN Act 2004.	Implementing framework (LGW EA).
	Abstract Tools: Problem-solving model: Continuum of support.	Lack of awareness of the Continuum of Support. Similar stages of support.	Problem-solving frameworks (PSM LA). Area of improvement (PSM SS).

Appendix W: Stages of Thematic Analysis and Sample of Initial Coding:

Phase 1: Reading and Familiarisation with the Data

The interviews were conducted and transcribed by the researcher. This allowed the researcher to become immersed in the content of the data before the analysis stage (Braun & Clarke, 2013). The researcher ensured to listen to the original audio recordings of the semi-structured interviews repeatedly, to check that the completed transcriptions accurately reflected the participants' responses to each question. During this process, the researcher made note of points of interest in their research journal to aid the analysis process (Braun & Clarke, 2013). The researcher read through all data prior to commencing phase two, the initial coding phase, and again made note of initial ideas for codes in their research journal.

Phase 2: Generating Initial Codes

The second phase of thematic analysis involved re-reading through the interview data and producing initial codes from the data (Braun & Clarke, 2006). The coding was done manually with the researcher writing notes on the texts that they were analysing and using highlighters to identify patterns (Braun & Clarke, 2006). Codes were initially identified for all data extracts, and the data extracts related to an initial code were then grouped together (Braun & Clarke, 2006). During this phase, the researcher worked systematically through the data set and ensured to pay full and equal attention to all data items (Braun & Clarke, 2006). Where deemed appropriate, the researcher coded extracts numerous times to ensure that the context was not lost, as advised by Braun and Clarke (2006). As aforementioned, the generation of initial codes was derived both inductively and deductively from the data. Data-driven or inductive coding was initially undertaken by the researcher to capture the meaning of the data, it is essentially driven by what is in the data (Clarke & Braun, 2017). Examples of inductive codes include items such as 'model of reflection', 'demand on support services' and 'absent class teachers'. The inductive codes were then mapped onto the deductive codes derived from this study's theoretical framework, Second-Generation Activity Theory (Engeström, 1987). These deductive codes included 'subject', 'object', 'outcome', 'rules', 'community', 'division of labour' and 'tools/artefacts'. An example of initial coding is presented below:

Data	Initial Codes
Interviewer (I): How do you integrate the information from pupils, parents, and external professionals to help with the identification of needs?	
Participant (P): I file them into a folder. I do not integrate all information from the many different stakeholders as this can be overwhelming. Planning can be overwhelming when you consider reports from other professionals, when you review the collective work of the child, and when you consider the volume of content to be covered in the curriculum. I do try to address parents' desires for their child first. Then, I think about my role in covering the curriculum content. I then try to incorporate some of the recommendations from other professionals into the plans. I do not always cover all of the recommendations given to me due to time.	*Lengthy and detailed process* *What helps their child* *Primary school curriculum* *Lacking in time*
Interviewer (I): Okay, what are the areas of strength with the identification of pupil's needs in your school?	
Participant (P): The areas of strengths in terms of the identification of students' needs is our multidisciplinary approach, collaboration with other teachers, the emphasis on planning and keeping records of student learning.	*Linking in* *Teamwork*
Interviewer (I): What do you feel are the areas for improvement, if any, with the identification of pupil's needs?	
Participant (P): Teachers need assistance with regards to what recommendations from other stakeholders need to be prioritized, what recommendations need to be selected over others, and how to ensure that all recommendations are eventually met. Teachers need help with picking out learning goals from assessment results and observations. How do teachers decide what needs revising and what constitutes success in terms of the child reaching a learning goal? How to filter through all learning goals identified?	*Roles and responsibilities* *Awareness of success* *Interpreting results* *Professional judgements*
Interviewer (I): Okay, moving on then, the quality of teacher problem solving and decision making, is a key variable in linking sound research to effective practice. It supports and increases pupil standards and attainments. NEPS advocates the three-staged Continuum of Support framework. What is your perspective/understanding on this problem-solving model of assessment and intervention?	

Participant (P): I understand that it is a tiered approach to identifying children who need more support in school. I regard it as a framework. In terms of usefulness, it can be vague and not very comprehensive, particularly at the starting point. For example, what samples of work should be considered when gathering information? Children have abundance of work samples. What constitutes a concern and at what point do teachers flag a concern in a domain of development with other staff, learning support or resource teacher? On review, how does the teacher decide what the next learning goals should be, how does he or she find a balance between an achievable yet a challenging goal? How do assessment scores map onto planning?	*Confusion* *Professional judgements* *Needs along a continuum* *Interpreting results* *School support*

Phase 3: Searching for Themes

Phase three of the analysis process involved sorting the long list of different codes into potential themes which enabled the researcher to get deeper into the analysis (Braun & Clarke, 2013). It involved collating the relevant coded data extracts within the identified themes (Braun & Clarke, 2006). It is essentially an active process (Braun & Clarke, 2013). Using visual representations, the codes were grouped into categories or theme piles. Specifically, in line with Braun and Clarke (2006), tables were utilised to document the name of each code with a brief description included. The researcher then began thinking about the relationship between codes, between themes, and between different levels of themes, and the codes that did not fit into any category, were placed temporarily into a miscellaneous category (Braun & Clarke, 2006). Following this, the researcher collapsed the codes within each category to reflect a meaningful pattern within the data (Braun & Clarke, 2013). For example, the codes 'lack of learning support' and 'limited resource teachers and hours' were combined to produce the overall code of 'demand on support services'. Additionally, the codes of 'difficulties initiating the next stage' and 'difficulties with initial differentiation' were combined to create the overall code of 'professional judgements'. This phase ended with a table of potential themes and subthemes.

Phase 4: Reviewing Themes

The fourth phase of thematic analysis involved two-levels of reviewing and refining themes (Braun & Clarke, 2006). It is essentially a phase of quality control (Braun & Clarke, 2013). The first step involved reading through the collated data extracts for each theme and assessing whether they formed a coherent pattern (Braun & Clarke, 2006). If the data and theme did not form a coherent pattern or sufficiently correspond, the theme was either reworked or else the

data extract was subsequently moved to another theme (Braun & Clarke, 2006). For example, the original theme 'perceptions of problem-solving frameworks' was broken down into the subthemes; 'class teacher's role in implementing problem-solving frameworks', 'shared awareness of the need for training in an additional framework', and 'continuum of support as a problem-solving framework', to reflect the data more accurately. Additionally, 'classroom support initiated and led by class teachers' was broken down into the following subthemes; 'compiling student support files', 'collating assessment information', 'initiating the problem-solving process' and 'specific focus on academic targets', in order to more accurately reflect the data.

The second stage of reviewing and refining themes involved a similar process (Braun & Clarke, 2006). The researcher re-read the entire data set to ensure that the themes accurately reflected the meanings found across the data set (Braun & Clarke, 2006). During this phase, potential new themes were identified that were of interest to the researcher and these themes were also coded for, for instance 'special education teachers in a supervisory role' (Braun & Clarke, 2006). In line with Braun and Clarke (2006), the researcher stopped once the refinements no longer added anything substantial. The data was then re-read by the researcher with the research questions in mind (Braun & Clarke, 2006). This was done to ensure that any data that disproved or disconfirmed the themes was included (Braun & Clarke, 2006).

Phases 5 and 6: Defining and Naming Themes and Producing the Report

Phase five involved the researcher defining and further refining the themes that they would be presenting for their analysis, and analysing the data within the themes (Braun & Clarke, 2006). The researcher identified the essence of what each theme was about, in addition to the themes overall, and essentially determined what aspect of the data each theme captured (Braun & Clarke, 2006). For example, the theme title 'SEN teachers supervising classes with absent class teachers' was refined to 'special education teachers in a supervisory role'. A peer psychologist in training reviewed the themes and subthemes and offered suggestions to the researcher as to how they could be refined further. For instance, there was a discussion around the theme 'Perceptions of Problem-Solving Frameworks' and if the relevant subthemes provided a sense of participants understanding of the Continuum of Support framework. It was also discussed how 'Time to Implement Framework' differed from 'Time Consuming Process/Administrative Burden' with the former becoming a subtheme of the latter. The employment of an independent coder ensured internal reliability within the analysis process (Regan et al., 2015; Swanson et al., 2012). Phase six involved the researcher organising the themes and subthemes to tell the

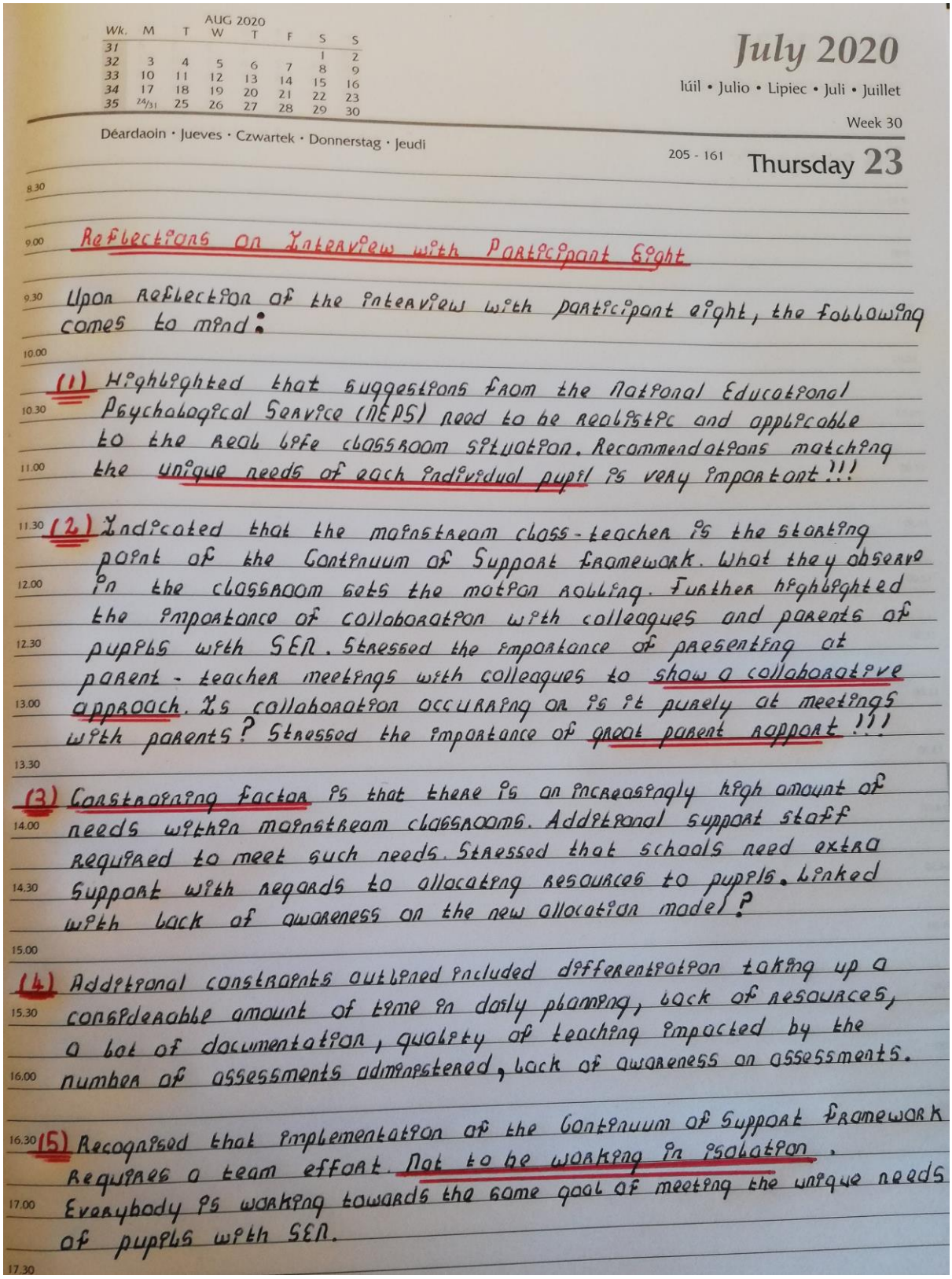
story of the data (Braun & Clarke, 2006). A report of findings was developed and thematic maps for research questions were created to represent the findings visually (Braun & Clarke, 2006).

Sample of Final Codes, Subthemes and Themes

Direct Quote from Participant	Codes	Subthemes	Final Themes
P10: Special Education Teacher: "In terms of usefulness, the continuum can be vague and not very comprehensive. I would like to be more informed of different problem-solving approaches that are being implemented in other European countries so that I can compare and contrast their usefulness and practicality."	Shared awareness.	Shared awareness of the need for training in an additional framework.	Perceptions of problem-solving frameworks.
P8: Class Teacher: "not the schools' fault but more teachers are needed to facilitate an increasingly high amount of needs."	Demand on support services.	Additional Learning Support/Resource Teachers required.	Lack of resources hindering work at all three levels.
P9: Special Education Teacher: "It takes up a lot of time and can prevent teachers from teaching at the best of their ability as staff have found that they spend so much time carrying out assessments, correcting, and assigning groups etc., that the quality of the teaching can be negatively affected unfortunately."	Lacking in time.	Busy school environments.	Time consuming process/ administrative burden.
P2: Class Teacher: "I do feel like the School Support Plus is often in the hands of external professionals and that the teacher's role is to implement the agreed steps. It can be challenging for teachers to see how the provisions NEPS advise match a student's needs. A new way for NEPS to make psychological advice meaningful, purposeful, and tangible for teachers is needed. There can be gaps for teachers in interpreting the reasons behind strategies and resources suggested by educational psychologists."	Educational psychologists.	Recommendations not matching pupils' educational needs.	Input from external professionals.

Direct Quote from Participant	Codes	Subthemes	Final Themes
P6: Class Teacher: "This is ongoing throughout the year and I would try to meet all five of my support teachers at some stage every week to discuss progress and what I think needs more work with specific children in their resource sessions."	Ongoing process.	Continuous consultation with support team.	Consultation work.
P10: Special Education Teacher: "There are no guidelines in the Continuum of Support on how to identify priority learning needs at the different stages. The Continuum of Support states that teachers need to gather information and conduct assessments. However, very little is said about how to use this information to guide practice."	Interpreting results.	Developing targets from assessment scores.	Difficulties interpreting assessment results.
P2: Class Teacher: "As NEPS, the external professionals conduct the assessments and contribute to the IEP, there can be confusion around the reasons for implementing particular strategies. There is usually a gap between understanding the rationale for these recommended strategies and how they contribute to the child's learning. Teachers often lack the knowledge of the theories behind such approaches."	Educational psychologists.	Recommendations not matching pupils' educational needs.	Input from external professionals.
P8: Class Teacher: "It lays out stages where you can monitor a child at different levels and make a judgement on the need for further intervention."	Level of needs.	Clear steps at all levels of support.	Identification of needs.
P7: Class Teacher: "I feel that we definitely need to encourage a more streamlined approach online. In our school there are a lot of documents to be filled out for the Continuum of Support some of which are a repetition of each other."	Repetitive stages.	Repetition of documents.	Stages of the Continuum of Support are repetitive.

Appendix X: Sample Extract from Researcher's Reflexive Journal:



AUG 2020

Wk.	M	T	W	T	F	S	S
31						1	2
32	3	4	5	6	7	8	9
33	10	11	12	13	14	15	16
34	17	18	19	20	21	22	23
35	24/31	25	26	27	28	29	30

July 2020

Iúil • Julio • Lipiec • Juli • Juillet

Week 30

Déardaoin • Jueves • Czwartek • Donnerstag • Jeudi

205 - 161 Thursday 23

8.30

9.00 Reflections on Interview with Participant Eight

9.30 Upon Reflection of the interview with participant eight, the following comes to mind:

10.00

10.30 (1) Highlighted that suggestions from the National Educational Psychological Service (NEPS) need to be realistic and applicable to the real life classroom situation. Recommendations matching

11.00 the unique needs of each individual pupil is very important!!!

11.30 (2) Indicated that the mainstream class-teacher is the starting

12.00 point of the Continuum of Support framework. What they observe in the classroom sets the motion rolling. Further highlighted

12.30 the importance of collaboration with colleagues and parents of pupils with SEN. Stressed the importance of presenting at

13.00 parent-teacher meetings with colleagues to show a collaborative approach. Is collaboration occurring or is it purely at meetings

13.30 with parents? Stressed the importance of great parent rapport!!!

14.00 (3) Constraining factor is that there is an increasingly high amount of needs within mainstream classrooms. Additional support staff

14.30 required to meet such needs. Stressed that schools need extra support with regards to allocating resources to pupils. Linked

15.00 with lack of awareness on the new allocation model?

15.30 (4) Additional constraints outlined included differentiation taking up a considerable amount of time in daily planning, lack of resources,

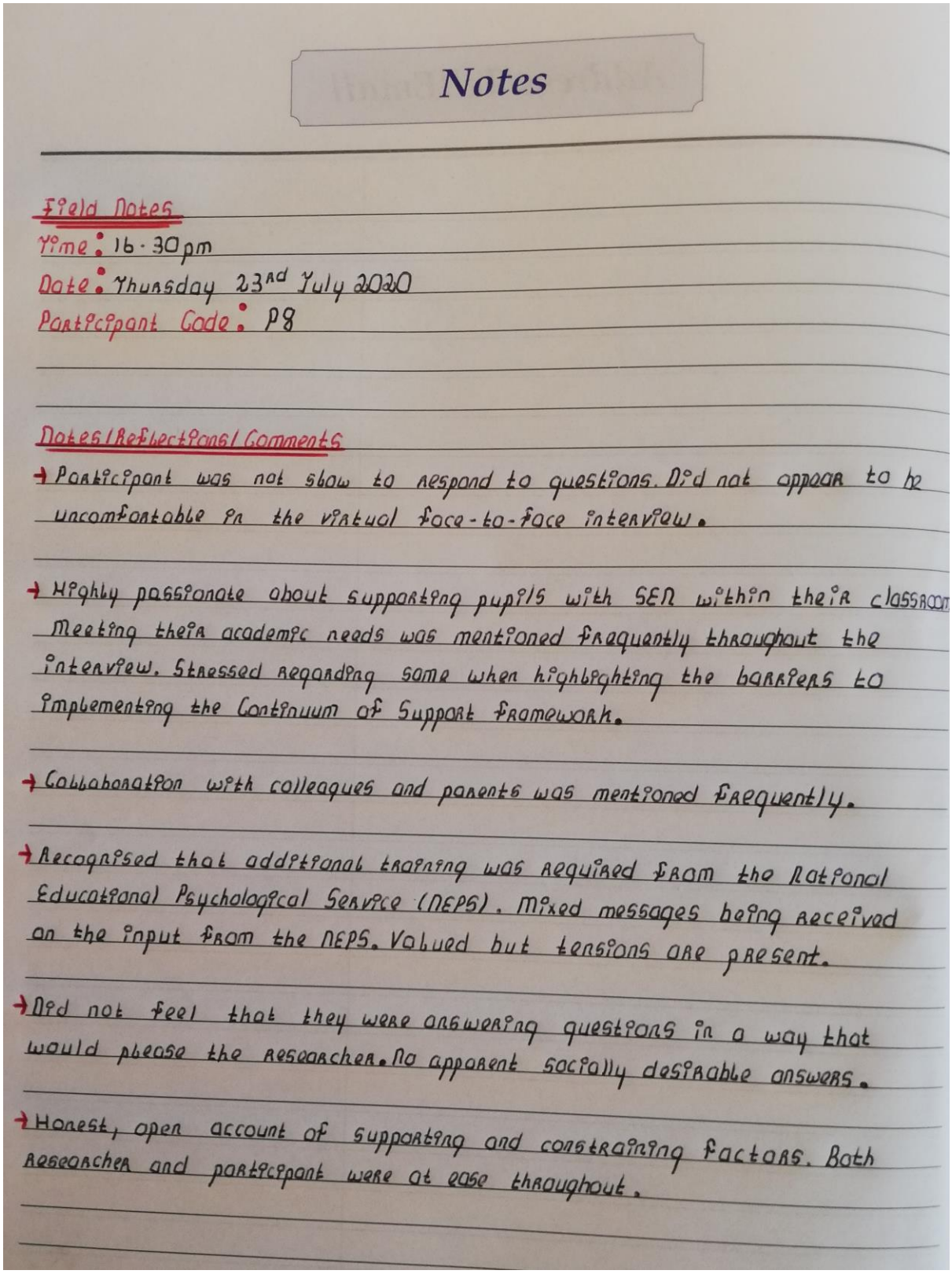
16.00 a lot of documentation, quality of teaching impacted by the number of assessments administered, lack of awareness on assessments.

16.30 (5) Recognised that implementation of the Continuum of Support framework

17.00 Requires a team effort. Not to be working in isolation. Everybody is working towards the same goal of meeting the unique needs of pupils with SEN.

17.30

Appendix Y: Sample Extract from Researcher's Field Notes:



Notes

Field Notes

Time: 16·30pm

Date: Thursday 23rd July 2020

Participant Code: P8

Notes/Reflections/Comments

→ Participant was not slow to respond to questions. Did not appear to be uncomfortable in the virtual face-to-face interview.

→ Highly passionate about supporting pupils with SEN within their classroom. Meeting their academic needs was mentioned frequently throughout the interview. Stressed regarding some when highlighting the barriers to implementing the Continuum of Support Framework.

→ Collaboration with colleagues and parents was mentioned frequently.

→ Recognised that additional training was required from the National Educational Psychological Service (NEPS). Mixed messages being received on the input from the NEPS. Valued but tensions are present.

→ Did not feel that they were answering questions in a way that would please the researcher. No apparent socially desirable answers.

→ Honest, open account of supporting and constraining factors. Both researcher and participant were at ease throughout.