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PHD

**UNDERSTANDING DYSLEXIA IN SECONDARY SCHOOLS: PERSPECTIVES
OF STUDENTS (WITH AND WITHOUT CONFIRMED DIAGNOSIS) AND
EDUCATORS**

Nelson, Kerissa

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**UNDERSTANDING DYSLEXIA IN SECONDARY SCHOOLS:
PERSPECTIVES OF STUDENTS (WITH AND WITHOUT CONFIRMED
DIAGNOSIS) AND EDUCATORS**

by

KERISSA NELSON

A thesis submitted to the University of Plymouth in partial fulfilment for the degree of

DOCTOR OF PHILOSOPHY

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Author Declaration

At no time during the registration for the degree of Doctor of Philosophy has the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

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Abstract

Understanding dyslexia in secondary schools: Perspectives of students (with and without confirmed diagnosis) and educators

Kerissa Nelson

The United Nations Sustainable Development Goal 4 seeks high quality education for all (UNSDG4). This requires classrooms to have improved access and opportunity for all students including those with dyslexia. Research regarding dyslexic students' experiences and inclusive education have not yet been thoroughly investigated. This research specifically addressed the experiences that both shape and are shaped by one's own perspectives and those of others in their environment. The study's objectives were to create knowledge and promote understanding of the experiences of students with dyslexia and to gain educators' perspectives on classroom practices.

The study drew on these different perspectives using a qualitative multi-temporal case study research design. Participants were selected through purposeful sampling and data were generated using semi-structured interviews and focus groups discussions. Five dyslexic students from mainstream secondary school participated in semi-structured interviews and shared current experiences of being dyslexic. One student had both a confirmed diagnosis and self-identification. However, all students in this group self-identified as dyslexic and were also identified as dyslexic by their school. Eight university participants reflected on their experiences during focus group discussions on formerly being students with dyslexia in mainstream secondary school. All of these students self-identified as dyslexic, with the exception of one who had both a confirmed diagnosis and self-identification. Educator participants reflected on

current, past, and potential future experiences supporting secondary school students with dyslexia. The focus group consisted of five participants, four females and one male, including one Special Education Needs Coordinator (SENCO) three Teaching Assistants (TAs) and one teacher from the same mainstream secondary school in South West England.

Data were analysed using an adapted thematic data analysis and concepts drawn from aspects of cultural and historical activity theory. Findings were organised into three main themes, structures, relationships, and identity, which led to recommendations designed to increase the positive experiences of students with dyslexia in mainstream secondary classrooms and help them form positive identities.

Dedication

This research is dedicated to my husband, parents, colleagues, friends, in-laws, church, and all family members who have wished me well and helped me to stay motivated.

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List of Abbreviations

Abbreviation: Full Version

APPG	All-Party Parliamentary Groups
BDA	British Dyslexia Association
BERA	British Educational Research Association
CHAT	Cultural Historical Activity Theory
COVID	Coronavirus Disease
CPD	Continuing Professional Development
CRPD	Convention on the Rights of Persons with Disabilities
CPRU	Children and Families Policy Research Unit
DfE	Department for Education

DISS	Deployment and Impact of Support Staff
DoH	Department of Health
DSM/-5	Diagnostic and Statistical Manual of Mental Disorders
DWR	Developmental Work Research
EHCP	Education Health and Care Plan
EdRESC	Education Research Ethics Sub-Committee
EEG	Electroencephalography
EOG	Electrooculography
EASNIE	European Agency for Special Needs and Inclusive Education
fMRI	Functional Magnetic Resonance Imaging
GCSE	General Certificate of Secondary Education
GDPR	General Data Protection Regulation
GEMR	Global Education Monitoring Report
ICD-10	International Statistical Classification of Diseases and Related Health Problems
IDA	International Dyslexia Association
IEP	Individual Education Plan
IFI	Index for Inclusion
MMU	Manchester Metropolitan University
MFL	Modern Foreign Language
NASEN	National Association for Special Educational Needs
NHS	National Health Service
PEP	Primary Exit Profile
PET	Positron Emission Tomography
QCA	Qualifications and Curriculum Authority
RTA	Reflexive Thematic Analysis
RTI	Response to Intervention
SEAL	Social and Emotional Aspects of Learning
SENCO/s	Special Education Needs Coordinator(s)
SEND	Special Educational Needs and Disability
TAs	Teaching Assistant(s)
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNSDG4	United Nations Sustainable Development Goal 4
WHO	World Health Organisation
WISERD	Wales Institute of Social and Economic Research and Data
WPR	Wider Pedagogical Role

Chapter One

Introduction

1 Introduction

1.1 Research background

This thesis assumes ‘dyslexia’ as a learning difference that exists (Rose, 2009; Dyslexia Action, 2012). However, it recognises there are varied theoretical, conceptual, contextual, and social constructions of the concept (O’Brien, 2018). Dyslexic students have distinctive experiences that both shape and are shaped by their own perspectives, as well as by the viewpoints of and interactions with others in their environment. This is likely to have a significant impact on their psycho-emotional well-being, which is how they think and feel about themselves. Research that considers the educational and emotional experiences of students with dyslexia can make a useful scholarly contribution to the field of education; there are however sources of contention between scholars, educators, government officials and clinicians around dyslexia’s even existence. These have influenced the development of suitable strategies or interventions, affected funding for dyslexia students in schools, impacted the psycho-emotional experiences of these students and highlights the need for more inclusive classrooms (Elliott & Place, 2004; Lockwood *et al.*, 2012; Elliott & Grigorenko, 2014; Tlemissov, 2020; Kirby, 2020).

This research sought to contribute to knowledge in inclusive education by providing an understanding of the psycho-emotional experiences of students with dyslexia in mainstream secondary schools from shared and distinct perspectives. Participants from three diverse groups and different time periods shared their experiences about dyslexia. One group comprised university who recounted their experiences of going through the secondary school system being dyslexic. The second participant group comprised dyslexia students who were currently in mainstream

secondary school, to provide a present-day understanding of the topic. The third group of participants were educators who engage with dyslexia students and play an important role in inclusive education.

Retrospective and current perspectives of participants are intended to generate knowledge, for example, to inform the provision of education for students with dyslexia in an inclusive environment. Throughout this thesis, how inclusion in school environments can work towards a dyslexia-and learner-friendly classroom to deliver positive psycho-emotional experiences for students with dyslexia was examined, along with an analysis of how individual experiences are shaped by aspects of their context.

The term psycho-emotional is derived from the two words ‘psychological’ and ‘emotional.’ Psycho-emotional well-being is a multidimensional construct that integrates elements of the individual, cognitive-evaluative and emotional domains. It is a state of positive psychological functioning that encompasses a person’s overall satisfaction with life, their sense of purpose and meaning, individuality, competence, self-awareness, contentment, and their ability to manage stress and cope with adversity (Golovey *et al.*, 2019). The definition presented here is the one that has been used in this study.

The researcher also acknowledges the impact of various forms of psycho-emotional disablism on shaping our understanding of the psycho-emotional well-being as there is a dialectical relation between the person with a disability and the surrounding society (Reeve, 2012). This can shape the identities of students with dyslexia identities in a number of ways. Structural and psycho-emotional disablism are two types of societal oppression that can be experienced as disablism (Reeve, 2012). Direct psycho-emotional disablism results from a person's interactions with

others or themselves (Reeve, 2012). Students with dyslexia may be more likely to experience anxiety and depression due to the challenges they face in school because of their relationship with others such as teachers and peers (O'Brien, 2020). They may also encounter social isolation and bullying as well as difficulty accessing the same educational opportunities as their peers, which can shape their future prospects (Flecha, 2015; Jindal-Snape *et al.*, 2019). Therefore, psycho-emotional disablism may shape the identities of students with dyslexia. Understanding the psycho-emotional aspect of disablism may help educators and other professionals provide psycho-emotional support for students with dyslexia. Additionally, it may help raise awareness of the challenges that students with dyslexia experience, which can influence positive changes when creating an inclusive classroom. Therefore, recognising and supporting to psycho-emotional well-being is an essential aspect of inclusive education and understanding students' strengths and weaknesses but this can be a struggle and is very complex.

1.2 Philosophical background

A broadly socio-cultural approach within a critical realist stance was adopted that draws on Vygotsky's socio-cultural theory as a multi-dimensional approach (Karim & Bronwyn, 2016). It provides an understanding of how the process of knowing is affected by interaction with others and mediated by community and culture (Anderson, 2008; Amineh & Asl, 2015). The psycho-emotional experience of students with dyslexia can be understood from their social environment, where the society is constantly developing can be influenced by its past and present (Bøttcher & Dammeyer, 2012). Based on the socio-cultural approach, the methodological

framework was informed by Cultural Historical Activity Theory (CHAT) which influenced aspects of the design and data analysis. According to Foot:

Cultural points to the premise that humans are enculturated, and everything people do is shaped by and draws upon their cultural values and resources. The term historical is used together with cultural to indicate that since cultures are grounded in histories and evolve over time, therefore analyses of what people do at any point in time must be viewed in light of the historical trajectories in which their actions take place. The term activity refers to what people do together and is modified by both cultural and historical to convey its situatedness. Theory is used in this label to denote a conceptual framework for understanding and explaining human activity (Foot, 2015, p. 330).

Both the bio-psycho-social model and the socio-cultural approach can contribute to an understanding of dyslexia in varied contexts (Gable, 2014). The bio-psycho-social model encourages awareness of the individual's dyslexia across bio-psycho-social domains and so can inform the design of enabling learning environments that cultivate positive experiences of dyslexia (Hudson, 2016). Each model has a social element (exploring what happens through social interaction), however, the bio-psycho-social model emphasises the individual as a biological and psychological entity, while the socio-cultural model highlights the importance of culture and history. The bio-psycho-social model accords with a critical realist stance, while the socio-cultural model emphasises the way things can be shaped by socio-cultural and historical context and is premised on a relativist stance within a critical realist orientation. A Vygotskian approach includes multiple epistemological and ontological perspectives (Daniels, 2018). In this study critical realism was used as a framework to clarify the assumptions that inform the study's epistemology and research methods. Critical realism rejects the epistemological fallacy that ontological statements are reducible to epistemological statements (Bhaskar, 2008). Therefore, integrating a bio-psycho-social model within a socio-cultural approach enables understanding of individual psycho-emotional experiences and how meanings about dyslexia are created through

interaction and collaboration (Kalina & Powell, 2009). Biologically based differences are set within different cultural contexts that affect how such differences are perceived.

Biology and development are affected by cultural and historical contexts (Bøttcher & Dammeyer, 2012). For example, sighted reading involves coordination of motor skills requiring eye movement and a functioning brain to interpret what is being read but this skill that develops through the activity that a student engages in within cultural practices inside and beyond school or the classroom can influence its development. The bio-psycho-social model shares underlying assumptions similar with the Vygotskyian socio-cultural approach which is concerned with how cultures and environments shape individuals' abilities and disabilities and how they are perceived by others in their environment (Bøttcher & Dammeyer, 2012). According to Vygotsky, disability is "an incongruence between the individual's psychological structure and the structure of cultural forms" [and] "a dialectical relation between the person with a disability and the surrounding society" (Bøttcher & Dammeyer, 2012, p. 433). Such incongruence can be framed as dilemmas of difference (Norwich, 2009) or tensions which can be explored through CHAT (Sannino & Engeström, 2018). This research investigated how the effect of dyslexia may differ depending on the student's interaction with the environment, teachers, and support staff. The socio-cultural approach and the bio-psycho-social model together offer an understanding of dyslexia that considers how individual differences from birth are shaped by socio-cultural understandings of dyslexia, affecting individuals' feelings about and perspectives on dyslexia (Elliott & Grigorenko, 2014).

In addition to the theoretical perspective on dyslexia outlined here, the epistemological orientation is interpretivist and social constructivist. Creswell (2009)

suggests that people want to understand the society they are a part of. Students with dyslexia and educators actively construct their own knowledge based on their socio-cultural experiences (Crotty, 1998; Scholnik, 2006). Offering opportunities to students with dyslexia to explore and articulate these various sources of knowledge can build understanding in this area. Gaining students' perspective on their own learning difference and educators reflections on working with students with dyslexia can generate knowledge that could inform initiatives to make learning more inclusive for future secondary school students with dyslexia; hence, multiple perspectives are crucial to understand the research topic.

1.3 Aims

The research findings are intended to have a positive influence on the psycho-emotional experiences of secondary school students with dyslexia by expanding the knowledge of educators, including strategies to facilitate an inclusive classroom and a dyslexia-and learner-friendly setting. Fostering such a classroom means increasing access, inclusion, and opportunity in schools for students with dyslexia, which aligns with UNSDG4 providing quality education for all (United Nations, 2019). Dyslexia International (2015) suggests, equality and societal success requires that students from various backgrounds and cultures must have access to instructors educated to identify and deal with learning challenges like dyslexia. The human aspect of dyslexia is often neglected in the literature as it relates to students with dyslexia and their feelings in the classroom (Burden, 2008). The aim of this research was to create knowledge and promote understanding of such experiences, specifically in mainstream secondary classrooms.

To accomplish this, a qualitative research methodology and multi-temporal case study research design was used to investigate the importance attached to social issues by exploring individual meanings and perspectives (Creswell, 2009). The study drew on multiple perspectives. The university students represent the past, the secondary students represent the present and educators in mainstream secondary classrooms represents the past, present and future. Data collection included the use of semi-structured interviews and focus groups. Braun *et al.* (2016) informed the thematic analysis at data analysis stage, enabling identification of overarching themes and their relevance in addressing the research questions.

1.4 Research questions

To achieve the aims, this thesis addresses three main research questions:

RQ 1. What do students with dyslexia who are now attending university in South West England say about their past psycho-emotional experiences in mainstream secondary classrooms?

RQ 2. What do current students with dyslexia say about their psycho-emotional experiences in mainstream secondary classroom as an activity system in South West England?

RQ 3. What do educators say about students' psycho-emotional experiences in mainstream classrooms in South West England?

RQ 4: What are the implications of these three perspectives for the development of strategies to support the psycho-emotional needs of students with dyslexia in mainstream secondary classrooms.

1.5 Overview of the research

This thesis comprises ten chapters. The following chapter provides background information on the dyslexia debate, demonstrating the varied educational perspectives related to this learning difference and its effect on the support given to students with dyslexia. Definitions of dyslexia are outlined and followed by a comparison of poor readers with students with dyslexia, and discussion of labelling.

This thesis then moves from an overview of the study to exploring suitable theoretical frameworks that might assist understanding of dyslexia from educator and student perspectives. Chapter 3 introduces the bio-psycho-social model as one of the main guiding frameworks for this study, while Chapter 4 introduces CHAT and suggests that an inclusive setting assumes the incorporation of dyslexia-and learner-friendly classrooms. The concluding section of the literature review in Chapter 5 examines current and changing practices for teaching dyslexic students in mainstream secondary classrooms in the context of inclusive education, the role of an inclusive educator, barriers to creating inclusive classrooms, and dyslexia awareness initiatives and teacher training. The chapter also discusses support for vulnerable students, including students with dyslexia, and supporting transitions from primary to secondary school.

Chapter 6 outlines how the research was conducted and provides detailed information on the methodology and ethical considerations. Findings from thematic analysis of collected data are presented and discussed in Chapters 7, 8 and 9, and concern the past and present experiences of students with dyslexia in mainstream secondary classrooms and the views and experiences of teachers and support staff

who teach students with dyslexia. The concluding Chapter 10 summarises these findings, presents the study's contribution to knowledge and offers recommendations on practice, training, and areas for future research.

Chapter 2

The dyslexia debate

2 The dyslexia debate

2.1 Introduction

For the purpose of this research, dyslexia is understood as developmental dyslexia, and the research reported is based on an argument that dyslexia exists and is culturally constructed (Shaywitz & Shaywitz, 2020). A general learning difference affects all areas of someone's cognitive ability, while a specific learning difference/special educational need such as dyslexia only affects select areas of an individual's functioning (Mackay, 2008; British Dyslexia Association (BDA), 2019; O'Byrne, Jagoe & Lawler, 2019). Furthermore, dyslexia occurs not because of an absence of education or a low intelligence quotient (IQ) but because it can be understood across bio-psycho-social and socio-cultural domains (Stoodley *et al.*, 2008; Snowling, 2019; Sari & Saday, 2020; Pérez, 2020). In the context of educational provision in the UK, dyslexia falls within the broad category of Special Educational Needs, as outlined in the Special Educational Needs and Disability (SEND) Code of Practice (Department for Education, (DfE), 2015).

A learning difference/need can be considered a disability if it significantly affects the way people carry out everyday tasks, but its use can be very controversial. Nevertheless, the concept is closely related to the idea of a disability, which is a mismatch between individual variations in the profile of (genetic or acquired) strengths and weaknesses and socially constructed structures, routines, concepts, and material worlds that occur throughout cultural development (Bøttcher & Dammeyer, 2012). The cultural-historical approach incorporates both the biological and social aspects of disability (Shakespeare, 2014). Vygotsky's use of the word defectology to refer to a disability should be considered in the context in which he was writing and

when his work was translated. There have been several translations of his work from Russian to English and the language chosen does not always accord with current views on disability (Daniels, 2002). Dyslexic students may have strengths in areas which require cognitive, visual, computer and innovative skills (Schneps, 2015; BDA, 2019). However, may find the acquisition of reading skills, most notably word recognition and decoding, challenging (Landerl *et al.*, 2009). A student's learning difference may also affect their school achievement, memory, and attention, which, in turn, is likely to impact their psycho-emotional experiences in an inclusive classroom (Eide & Eide, 2011; Varvara *et al.*, 2014; Alsulami, 2019). Despite having a learning difference, any negative consequence can be shaped by the learning environment. Mackay (2008) suggests, when attention to spelling and reading accuracy is permitted to take precedence over processing information and structuring what we write down, this particular difference becomes a specific difficulty, and the learning choice becomes an issue with educational practices.

Although differences of opinion exist, there appears to be some agreement across literature that dyslexia refers to students with dyslexia having challenges learning to read, write and spell well (Parveen & Baig, 2021; Mohamad, 2021). In other words, dyslexic students may take a while to pick up terminology and develop proficiency and can have difficulties generalising or reading unfamiliar words (Hulme, Snowling & Nation, 2020). Misconceptions or misunderstandings of dyslexia may include, for example, that students with dyslexia write letters and words backwards. As students with dyslexia grow their dyslexia will diminish. Dyslexic students are indolent and have a low IQ (Washburn *et al.*, 2017; Berman & Stetson, 2018; Tlemissov, 2020; Maunsell, 2020).

Dyslexia is found globally, especially in countries where there is a strong need to be literate (Anderson & Meier-Hedde, 2011; McBride, 2019). Worldwide, an estimated 5–10% of people have dyslexia (Siegel, 2006; International Dyslexia Association [IDA], 2016). In some countries, this number may rise as high as 17% (Jordanova, 2020), or even as high as 20% (Hutchinson, Timimi & McKay, 2020). Dyslexia International (2018) suggests 700 million people internationally may have dyslexia and, in the UK, it is estimated to affect one in ten people, or 6.6–9.9 million adults and 800,000–1.3 million young people of school age (BDA, 2019).

Dyslexia may be more likely to be seen in males (Hulme & Snowling, 2016; de Campos, 2021). According to Arnett *et al.* (2017), cultural variables may account for sex disparities in reading ability, however, more research is needed to support this claim. Arnett *et al.* (2017) also suggest that the gender gap in reading proficiency is real, and males lower mean and more variable performance causes it compared to females. According to an empirical study by Shaywitz *et al.* (2016), teachers classified more males than females as having dyslexia, mostly because of the more active or disruptive behaviour of males. In contrast, when they tested each child individually, customised testing showed an equal proportion of dyslexic males and females. Likewise, the Dyslexia Research Trust (2018) supports Shaywitz *et al.* (2016) findings by providing statistics to show that 10% of students of all social groups have dyslexia in the United Kingdom (UK), regardless of sex or gender. Therefore, this thesis suggests there is no difference within person, but a difference in referral rates, assuming there is a possible social difference, not a biological difference.

To date, there has been little agreement on what dyslexia means as it continues to be a contentious issue in the education community (Kirby, 2020). Tensions may

arise around whether to view dyslexia as a disability or as a general reading problem (Lockwood *et al.*, 2012). Oliver (2017) maintains that assessment used by professionals, including teachers, cannot explicitly identify the difference between general reading issues and dyslexia. As a result, Elliott and Grigorenko (2014) argue that the label or diagnosis of students with dyslexia is unscientific, which may affect educators perspectives on dyslexia. The concept of dyslexia may be viewed by some in the classroom as a mythical condition used widely to depict the challenges or limitations associated with showing literary capabilities, as observed in many individuals, particularly students in educational environments (Tlemissov, 2020). The dyslexia debate is ongoing especially as it relates to dyslexia's relevance to inclusive education (Elliott, 2020; Kirby, 2020). This chapter introduces various definitions of dyslexia from different theoretical perspectives, which can be constructed from both bio-psycho-social and cultural and historical understandings of dyslexia. It also discusses the difference between poor readers and students with dyslexia and provides an exploration of labelling, which has been culturally and historically constructed.

2.2 Definitions of dyslexia

2.2.1 Contextualisation and construction

In 1887, German ophthalmologist Professor Berlin coined the term dyslexia, and it has been contested since its inception (Elliott & Grigorenko, 2014). What the term denotes depends on how it is contextualised and constructed within specific cultures and academic disciplines. There is no universal definition of dyslexia and meanings differ throughout research. The term may be considered nebulous in its applicability and usage and, yet it persists (Hutchinson, Timimi & McKay, 2021; Hettiarachchi, 2021). Dyslexia exists despite a precise definition remaining elusive;

accordingly, this research does not subscribe to any one definition but uses the term consistently throughout the research process. Previous studies on dyslexia have not dealt with defining the concept well but have provided some information on the topic; hence, more research is required on dyslexia to provide an accurate definition and comprehensive understanding (Caravolas *et al.*, 2012). Descriptive and discrepancy-based definitions are introduced here.

2.2.2 Descriptive definitions

The BDA (2010) adopted one of the most significant descriptive definitions of dyslexia. This suggests dyslexia is a learning problem that mainly affects one's ability to read and spell correctly. Phonological awareness, verbal memory, and verbal processing speed are all common difficulties associated with dyslexia. Regardless of one's intellectual abilities, dyslexia can occur, and co-occurring issues, for example difficulties with concentration, motor co-ordination, vision and hearing may exist. By examining how an individual responds or has responded to well-founded interventions, one can determine how severe and persistent dyslexic difficulties might be (Rose, 2009).

Descriptive definitions are widely used in England, although not universally, since such definitions are criticised as too general (Elliot & Place, 2004; Elliott & Grigorenko, 2014; Kirby, 2020). The House of Commons (2009) suggests these definitions raise some valid concerns, but they are so broad and general that it is difficult to see how they could be beneficial in a diagnostic setting. Descriptive definitions are also limited in scope, with no indication of the root causes of dyslexia (Kuerten, Mota & Segaert, 2019). Nevertheless, they highlight the cognitive strengths

that differ among students with dyslexia, which is not found in other definitions (Miciak & Fletcher, 2020).

The Scottish government developed its own working definition of dyslexia, which has some similarity to the previous definition, but is unique in its approach, not only by focusing on literacy and writing skills, but also on individuality (which may affect how they interact) (Reid, 2019). The Scottish government defined dyslexia as problems with reading, writing, and spelling, despite appropriate learning interventions. One's difficulties with these skills may not be indicative of their cognitive abilities and may not be representative of how they perform in other areas (Scotland Education, 2014). While this definition captures many key features of dyslexia, it does not speak to the psycho-emotional aspect of students with dyslexia in mainstream secondary classrooms.

Definitions used in England are intended to have an Anglocentric focus, meaning they are based specifically on the English or British cultural context (Elliott & Grigorenko, 2014). There has been a growing trend for some members of the dyslexic community in England to use the terms specific learning difficulties, specific learning disability, or just learning disability or literacy difficulties to refer to students with dyslexia (Nicolson & Fawcett, 2010; Caskey, Innes & Lovell, 2018). These terms appear in the SEND Code of Practice and in the Children and Families Act 2014 (DfE, 2015; Peacey, 2015).

2.2.3 Discrepancy-based definitions

While descriptive definitions provide an understanding of dyslexia, they are not comprehensive, and discrepancy-based definitions seek to provide more understanding of dyslexia but also have limitations. Nevertheless, the definitions

provided in this section can bring some clarity. The biomedical model is recognised across academic fields, suggesting that students with dyslexia have a difficulty which leads to literacy acquisition problems or reading accuracy deficit (Conner, 2017; Sako, 2017). The World Health Organisation (WHO) provides a widely used general discrepancy-based definition of dyslexia, which suggests despite normal teaching, sufficient intelligence, and socio-cultural opportunity, learning to read might be challenging (Snowling, 2000). This definition conceptualises dyslexia in terms of acquiring reading skills, as opposed to other general definitions that conceptualise dyslexia in terms of reading achievement based on discrepancies (Ott, 1997; Deacon, Parrila & Kirby, 2008). According to Barnes (2012), this perspective focuses too much on difficulty and does not consider the role of the social environment in shaping students with dyslexia identity and their psycho-emotional experiences. Instead, it focuses on the students with dyslexia learning difference to be remedied, although it mentions socio-cultural opportunity. The bio-psycho-social approach also includes some aspects of the biomedical model, such as biological, psychological, and cognitive limitations and expands some parts of the biomedical model (Snowling, 2000).

Definitions might be intended primarily for a particular audience; American definitions of dyslexia tend to differ from British and Scottish definitions, affecting how dyslexia may be construed. A major development has been replacing the term dyslexia with specific learning disorder or specific learning disability ((Elliott & Grigorenko, 2014; Wagner, 2020). These terms are contested by Snowling (2014). Dyslexia is often conceptualised as a learning disorder that may occur alongside other disorders such as attention deficit hyperactivity, dysgraphia, and dyscalculia by experts in the global north, inclusive of medical, neurological, positivistic, or psycho-

medical perspectives (Adubasim & Nganji, 2017; Macdonald, 2019). A Specific Learning Disorder (SLD) can be defined as a type of neurodevelopmental disorder in which an individual is unable to obtain or use identifiable academic skills required for other types of educational tasks. These problems are unexpected, while other characteristics of development occur normally across cultures in different ways and can continue for a lifetime. The Diagnostic and Statistical Manual of Mental Disorders -5 (DSM/-5) can guide a clinical diagnosis of this disorder (IDA, 2020). Lyon, Shaywitz and Shaywitz adopt a similar definition of dyslexia, which suggests this specific learning disability is neurological, and its distinct features include problems with word recognition, spelling, and decoding. These problems occur because there is a shortfall in language's phonological structure and is most times unexpected despite cognitive capabilities and good teaching practices. Problems with reading comprehension and less reading time may be secondary effects that inhibit the development of language and foundational understanding (Lyon, Shaywitz & Shaywitz, 2003).

These bio-psycho-social discrepancy-based definitions of dyslexia focus primarily on the term to highlight the behavioural aspects of reading and spelling of students with dyslexia compared to age and IQ related expectations and the purpose of the brain (Hulme, Snowling & Nation, 2020). This affords little attention to the role of the environment or cultural historical context. The IDA definition attempts to include matters of aetiology (Miciak & Fletcher, 2020). However, from a socio-cultural perspective, the primary cause is the biological difference which can lead to secondary problems for students with dyslexia depending on their learning environment. Furthermore, while the definition by Lyon, Shaywitz and Shaywitz highlights the symptoms or characteristics of dyslexia by including causes, it may

encourage a predisposition to look for certain results (Kuerten, Mota & Segært, 2019). This could impact people's reasoning and understanding of dyslexia (Tønnessen & Uppstad, 2015). There is no comprehensive discrepancy-based definition of dyslexia. However, these theories can help provide a clearer understanding of dyslexia, which is needed to address the research question. The following section builds on this understanding of definitions, by providing comparisons between poor readers and students with dyslexia.

2.3 Comparing poor readers and students with dyslexia

The researcher acknowledges the complexities of distinguishing poor readers from students with dyslexia. However, this study focuses on the unique experiences of students with dyslexia, which both shape and are shaped by their own perspectives and interactions about dyslexia with others in their social environment. The contested nature of dyslexia is well known, but in the context of this study the researcher does not take a side in the debate or draw any conclusions about the difference between poor readers and students with dyslexia. Instead, the researcher shows how the debate about dyslexia will shape the attitudes of individuals associated with it (both students with dyslexia and educators). In other words, this study is conducted from the perspective of the participants, rather than the researcher. The participants do not share the same ideas or experiences about dyslexia even though they part of the same classroom, which is an important aspect of the analysis and will be discussed further in chapter 4. The data is analysed from the perspectives of the subject (the participants) and these viewpoints will add to the depth and the thick descriptions to answer the research questions. Some participants will have a discrepancy based perspective which they use as a conceptual tool to mediate their understanding of

dyslexia. Others may believe dyslexia is complicated and we really ought to concentrate more on making sure that there are opportunities for everyone's difficulties with reading to access the support that they need (Elliott, 2005). Nevertheless, it is the participant voices that come out in the study.

Intelligence is one of the factors contributing to the mixed perspectives on the debate. Stanovich (1994) points out that students with dyslexia display substantial inconsistencies between reading ability and intelligence test achievement, but dyslexia is not correlated with IQ (Novita, 2016; Lopes *et al.*, 2020). In contrast, Kuppen and Goswami (2016) claim poor reading is a non-specific reading difficulty and is associated with low intelligence. One frequent issue discussed in the debate over dyslexia versus poor reading is a discrepancy between reading ability and IQ. Some view the IQ-based 'discrepancy' method for distinguishing different types of readers as flawed, as it does not accurately reflect the diversity of reading skills (Snowling, Hulme, & Nation, 2020). It is also challenged for not considering other factors that can affect reading comprehension, such as socio-economic background, culture, motivation, prior knowledge, emotional well-being, or interest (Logan, Medford & Hughes, 2011; Lervåg *et al.*, 2018; Ganuthula & Sinha, 2019). Some claim IQ scores can also be misused and misinterpreted, so they may not be the most trustworthy way to distinguish poor readers from students with dyslexia (Beaujean, 2018).

Discrepancy-based models can affect how people view and differentiate poor readers from students with dyslexia. If participants support the discrepancy-based model, they may be more likely believe that some poor readers have dyslexia. This is because the discrepancy-based model suggests poor readers are only dyslexic if their reading ability is significantly below their cognitive ability (as mentioned in Section

2.2.2). Adubasim and Nganji (2017) use the discrepancy-based model to suggest that students with dyslexia can achieve academically, despite their reading, writing, and spelling abilities falling below their expected age, class performance, and key stage. Therefore, students with dyslexia can succeed academically (Richardson, 2021). The discrepancy-based model is not the only theory of dyslexia and is considered by some to be outdated and inaccurate (Siegel & Hurford, 2019). This model does not account for the possible connections between experiences and identity, and the dialectical relationship between the student with dyslexia and society as a whole (see Section, 2.2.3). Nevertheless, the theory is widely referenced and could influence how participants view poor readers and students with dyslexia.

Another factor heavily debated in the context of dyslexic and poor reading is phonological awareness. Some students with dyslexia may have difficulty with phonological awareness, which includes figuring out and analysing sounds spoken (Rack, 2017). This may severely restrict their ability to develop reading-related skills and has been suggested as the main cause for reading and spelling issues (Rack, 2017). The phonological deficit perspective has been challenged, as some researchers claim it does not adequately explain dyslexia or prove poor readers are different from students with dyslexia but is still used as an assessment criterion for confirming dyslexia (Share, 2021). Poor readers, however, may have better implicit motor learning used in automatising of learned movement and better implicit phonological representation than students with dyslexia, which may impact their learning within the classroom (Boada & Pennington, 2006; Stoodley *et al.*, 2008).

In addition to phonological awareness, Snowling, Hulme and Nation (2020) claim three of the most obvious individual differences are the way students with dyslexia and poor readers acquire knowledge, decode words, and their cognition. For

these students, their differences may come from their experiences, which can be physiologically and cognitively influenced by social and individual meaning, as it is generated in activity which is line with a socio-cultural theory and bio-psycho-social approach (Burkitt, 2019). These students may be slower to develop reading fluency and, in their ability to understand words (Snowling, Hulme & Nation, 2020). They can also have difficulty reading unfamiliar words (Snowling, Hulme & Nation, 2020). Some believe however, that students with dyslexia can have good comprehension, despite struggles to read or spell correctly (Eide & Eide, 2012; Hutchinson, Timimi, & McKay, 2020).

Likewise, Kuppen and Goswami's (2016) study suggests that cognitive predictors of reading show differences between poor readers and students with dyslexia. They contrast previous studies that used the group matching method with their new idea of using developmental trajectories to reveal differences between poor readers and students with dyslexia. The trajectory methodology enables identification of atypical versus delayed development in datasets of the cognitive predictors of reading gathered using group matching designs. The method showed that trajectories for the two groups diverged markedly. These opposite trajectories may have important ramifications for supporting each type of poor reader, although all poor readers showed weakness in all areas.

Adding to the complexity are different arguments regarding identifiable categories of readers. The Reading Component Model suggests there are at least three different subgroups of poor readers: those with word recognition problems only, those with listening comprehension problems only, and those with a combination of these problems (Catts, Hogan & Fey, 2010). Likewise, Sleeman *et al.* (2020) propose that struggling readers can be allocated to one of three poor reader groups, including

dyslexia. Although these perspectives suggests subtypes of poor readers, there are some who believe the characteristics of poor readers and dyslexic students may be similar, but the factors that cause their underlying issues are open to debate (Stein, 2018). Buckingham, Wheldall, and Beaman-Wheldall (2013) suggest some poor readers may experience issues reading due to social or environmental factors, such as low socio-economic status, rather than specific cognitive deficits (Frith, 1999; Fawcett & Nicolson, 2017).

Similarly, Gough and Tunmer (1986) identified four types of readers among the school age population, namely normal, dyslexic, hyperlexic, and garden-variety poor readers. The research predicted that students with normal reading comprehension would have the best decoding and linguistic comprehension skills, while students with dyslexia would have poor decoding skills, but similar linguistic skills as normal readers. Poor readers, on the other hand, would have higher decoding skills compared to dyslexic readers and lower levels of linguistic comprehension. The hyperlexic reader was predicted to have high levels of decoding skills and low levels of linguistic comprehension, as well as a similar reading comprehension level to dyslexic and poor readers. If Gough and Tunmer predictions hold true, dyslexic readers would have the greatest chance of enhancing their reading ability once their decoding impairments have been addressed. Others might challenge this viewpoint, as dyslexia is too complex to use these results to predict the distinction between poor readers and students with dyslexia.

Standardised education tests may be used to support the classification of different readers. These tests can be used to measure students' academic achievement in a variety of subjects, including reading, writing, math, and science (Steinmayr *et.al*, 2014). The results of these tests can then be used to identify students who are

struggling in certain areas and to provide them with the necessary support (Brown-Chidsey & Steege, 2011; see Section 2.5). Spagna (1996) investigated the decoding skills and linguistic comprehension of dyslexic and poor readers using standardised education tests. Spagna found that dyslexic readers might use different approaches to decode words they did not know, as opposed to poor readers who did not use such tactics. A possible critique of this is that dyslexic readers might have been taught/encouraged to use different tactics, while poor readers might have been taught via only one approach, namely systematic synthetic phonics, as is the case in England (Glazzard, 2017). Stanovich (1994) suggests readers with dyslexia tend to use information about real words to make up for their deficiencies in phonology, unlike poor readers. He also claims the most salient difference regarding decoding between poor readers and students with dyslexia is that poor readers have age-related delays in decoding skills and linguistic comprehension like younger students, while dyslexic readers have phonological issues like younger students. This is the group-matching design, which Goswami refines by considering differences in trajectories.

There are those who theoretically challenge the notion that dyslexia exists, or that there is any difference between poor readers and students with dyslexia; there is some support for the idea that the aetiology of reading difficulties varies, and there are also differences in support for students with reading difficulties, that is, the ways in which they are helped to learn. There are different theories about the aetiology of dyslexia, which influences differences in support for students with dyslexia. This leads to position of some complexity, as the differences in support (remedial strategy) could have different effects depending on the root cause of the reading difficulty. Some people claim that, given this complexity, there is no need to separate the two groups, as there is no clear way to identify them. It does not help solve their problems

with literacy, and intervention should therefore be targeted at all students with reading problems (Macdonald, 2010; Elliott & Grigorenko, 2014; Dilnot *et al.*, 2017). The UK House of Commons Science and Technology Select Committee (2009) supported this viewpoint by suggesting there is no significant benefit recognising a student as dyslexic; all students should receive support with poor reading issues, as the reading interventions for students with dyslexia are the same for all struggling readers.

There is an established line of research into targeted interventions, which is linked to the idea that reading interventions for students with dyslexia are not a one-size-fits-all approach. Snowling, Hulme and Nation (2020) argue for targeted interventions for students with dyslexia, which can include tailored phonics instruction that covers phonemic awareness, letter knowledge, and structured reading practice. Dyslexic students with a visual processing deficit may benefit from accommodations such as larger print and audio-books and students with a working memory deficit may benefit from breaks and frequent checks for understanding (Alloway, 2010; Jayapriy & Vinay, 2023). Although these interventions may be tailored for students with dyslexia, they can be viewed as an inclusive practice to support all learners with reading difficulties to increase their participation while interacting within the classroom (Booth & Ainscow, 2011; Khan & Khan, 2021; Jayapriya, & Vinay, 2023). When creating an inclusive classroom, increased awareness and understanding of the different theories about the aetiology of difficulty with reading may inform participants' viewpoints regarding support for students classified as dyslexic as well as others who struggle with reading.

The debate continues over whether differences between readers are opinion-based and test-based. Opinion-based differences suggest there is no one agreed definition of dyslexia, which remains a debatable term (Kirby, 2020). Some people

believe dyslexia is a specific learning difficulty that affects reading and writing, while others believe it is part of a broader category that includes any difficulty with reading (Roitsch & Watson, 2019; Elliott, 2020). Test-based differences imply that there are underlying identifiable and remediable significant differences between dyslexic readers and other groups; however, there is no universal test for dyslexia. Some tests focus on phonological processing, while others focus on visual processing or working memory deficit (Stein, 2019; Gray, 2019; Mantovani *et.al*, 2021). The complexity in variation in subtest performance makes it difficult to establish whether a particular student has dyslexia, especially given Goswami's findings about differences in trajectories between dyslexic and poor readers.

Differences in understanding the nature of dyslexia may also influence how researchers approach dyslexia and design their studies. Some scholars argue for clear distinctions between the two groups, which shapes their research approach and findings (Stuebing, 2009; Ramus, 2014). Snowling, Hulme and Nation (2020) on the other hand suggest there is no boundary mark for poor reading but that it is recognised as an education issue if learning and fluency development challenges continue. This shapes their argument and suggestions for supporting students with dyslexia. Hutchinson, Timimi, and McKay (2020) contend that some researchers have a narrow perspective and focus on the most obvious, identifiable, and easily measured factor of reading accuracy when distinguishing poor readers from students with dyslexia. They argue this approach is too simplistic and does not consider the complex nature of dyslexia. In the end, the researcher's interpretation or understanding of dyslexia can affect how they view the topic and what knowledge they produce (Fawcett & Nicolson, 2017). The debate is complicated with varied perspectives because it is

difficult to differentiate poor readers from students with dyslexia. In the light of this complexity, in the context of the present study the researcher acknowledges the diverse understandings of the debate and also recognises that these different understandings will have shaped the opinions of the participants in this research. This includes managing the issue of how to refer to students with reading difficulties, which is discussed in the next section.

2.4 Labelling dyslexia

A much-debated question is whether labels can be applied to students with dyslexia. Gold and Richards (2012) suggest labelling is a process of giving a description to a person constructed because of their social and bodily features. A label or category such as dyslexia can be used to place students into a specific cluster as they share similar features. Although no label or category can accurately define someone, labels can serve a purpose (Becker, 1963). According to Hollenweger (2013), labels or “categories are knowledge stabilisers that help us organise the continuous flow of experiences [...], they stabilise relationships [and] are tools for building new knowledge” (p. 28). While students with dyslexia may be declared or defined as dyslexic, they may exhibit their own unique features associated with this learning difference, which may shape their identity. Hulme, Snowling and Nation (2020) suggest a further slackening of the criteria for dyslexia so that the label can be applied to a broader population. It is maintained, however, that this suggestion is optimistic and made without an appreciation that societies do not view dyslexia in the same way; the use, adoption and benefits of the dyslexia label may vary according to history and culture.

Adopting a cultural-historical approach, labels can be viewed as socially and culturally constructed (O'Brien, 2018). In some cases, academics in education adopt social labelling theory in which contextualisation and understanding are relevant when discussing students with dyslexia and inclusion (Thompson, 2012). Elliott and Grigorenko (2014) have reviewed many definitions and the crux of the dyslexia debate is how dyslexia is constructed and used to support persons who have an issue with reading well. The debate about a dyslexia label has gained fresh prominence in education. Glazzard and Dale (2015) and others argue that labelling students with dyslexia does not mean the student has negative personality traits but may help explain students' academic challenges (Boyle, 2014; Pitt & Soni, 2017; Reid & Guise, 2019). Additionally, labels may help students with dyslexia raise their self-esteem and may resolve confusions relating to their identity (Solvang, 2007; Alexander-Passee, 2015; Gibby-Leversuch, Hartwell & Wright, 2019). Alternatively, some students may not wish to be identified as dyslexic as the label may carry negative connotations, which could lead to a cycle of stigma (Alexander-Passe, 2015; Jacobs *et al.*, 2020). As a form of social branding, this impact on a student's learning capabilities may contribute to low self-esteem and negative self-fulfilling prophecies (Polychroni, Koukoura & Anagnostou, 2006; Farrell, 2010; Cowne, Frankl & Gerschel, 2018; Global Education Monitoring Report (GEMR), 2020).

Previous studies imply that a diagnosis in early years' foundation stage (two to five years old) can support students with dyslexia (Riddick, 2010; Snowling, 2014). Similarly, Torgesen *et al.* (2001) suggest that intervention provided before eight years old is most beneficial to students with dyslexia. Likewise, Pitt and Soni's (2017) small-scale study explored the perspectives of five undergraduate students with

dyslexia and suggest the earlier dyslexia is diagnosed the more effective the intervention may be, with a reduction or alleviation of emotional difficulties. However, careful consideration is necessary when diagnosing students with dyslexia at any age, especially before the age of 12 (Morken *et al.*, 2017). Even so there can be resistance to the label, especially when given for the first time in the later teenage years (Gibby-Leversuch, Hartwell & Wright, 2019). Nevertheless, intervention may reduce the likelihood of negative psycho-emotional experiences if deemed necessary for that dyslexic student (Riddick, 2010). According to Messiou (2017) despite having a specific label or being placed in a specific group, there may be students in every classroom who do not have any difficulties or have few things in common with their peers who belong to the same group. Therefore, Colenbrander, Ricketts and Breadmore (2018) go beyond Messiou to emphasise the importance of, not only a timely diagnosis, but also ongoing follow-up as well as suitable interventions for students with dyslexia. Using a bio-psycho-social approach, a distinction can be drawn, between a label and diagnosis; in the medical model, a diagnosis provides a rigid, standardised explanation (see Section 3.2; American Psychiatric Association, 2013), while labels categorise a human being based on recognised predetermined constructions (Gold & Richards, 2012). The current research recognises that labels and diagnosis will have different meanings for students with dyslexia and consequences will vary depending on individual contexts (Gabriel, 2020). A dyslexia label or diagnosis may lead to different outcomes for students with dyslexia with varied psycho-emotional experiences. For example, an understanding of this learning difference may cause some people to be empathetic, which is necessary for social interaction and helps to promote sensitive social interaction (Hoffman, 2001).

However, a label or diagnosis should be carefully considered when used to create inclusive classrooms (Hodge, 2016).

The researcher's theoretical position assumes there is a dialectical relation between the person with a disability and the surrounding society in conjunction with an awareness of how this might relate to identity. To illustrate this stance, Algraigay and Boyle (2017) claim that applying labels according to difficulties can adversely affect attempts at inclusive educational and social mainstream environments; individuals can become the target of various types of discrimination, stigma, and bullying. When teachers stigmatise their students, they display damaging attitudes and unequal treatment for students with dyslexia compared to non-dyslexic students (Hornstra *et al.*, 2010). Teachers' biases and negative attitudes toward students with dyslexia may exist long before they instruct students (Lisle, 2011; Sowards, 2015; Stacey & Fowler, 2019). Furthermore, teachers' biases, negative attitudes, and their own experience of being bullied as a student may contribute to them bullying students (Twemlow, 2006). Labels may impact the way teachers act and think about students with dyslexia beyond stigmatisation or bullying (Alexander-Passe, 2015). For example, some teachers may have lower expectations of students with dyslexia, which affects the way they teach and interact with these students (Elliott & Gibbs, 2015; Arishi, Boyle & Lauchlan, 2017).

The precise effect of dyslexia is a much-debated topic; students with dyslexia may not only have negative experiences with their teachers but also with their peers, which may impact inclusion in school (Green *et al.*, 2005). Peers in mainstream secondary school may stigmatise students labelled dyslexic or make negative remarks, which could affect students with dyslexia self-esteem. To reduce stigmatisation among peers, teachers can help peers understand the strengths and abilities of students

with dyslexia rather than focus on their weaknesses (Gibson & Kendall, 2010; Alexander-Passe, 2015). Dyslexic students may have negative experiences when students and teachers do not understand dyslexia, or if there are no external signs that a student is dyslexic. There may also be preconceived biases and negative evaluations about students with dyslexia (Lisle, 2011; Sowards, 2015; Stacey & Fowler, 2019).

According to Elliot (2020), defining or labelling students as dyslexic is a step away from inclusion and does not benefit the learner. Categorising students with a reading disability would be more appropriate in creating inclusive environments where all struggling readers have access to support. Inclusive learning environments can be flexible to meet the needs and support varied learning differences, including dyslexia, but should also consider how cultural and historical factors can affect how dyslexia is understood. Inclusion can be challenging, and this research seeks to demonstrate that a dyslexic student is different from a poor or struggling reader, but also that students with dyslexia psycho-emotional experiences related to labelling and diagnosis in mainstream secondary classrooms are likely to influence their identity (Jacobs *et al.*, 2020).

Whether labelling a student as dyslexic is more harmful or beneficial continues to be debated and it may be how the label is defined and used by clinicians, lobby and advocacy groups, teachers, school personnel, researchers and parents that shapes the lives of students with dyslexia (Knight, 2018; Lindstrom, 2019). In addition, despite substantial research in this area, scholars and members of the academic community continue to fiercely debate whether the label negatively affects students with dyslexia who may or may not have been officially diagnosed (Riddick, 2000; Elliott, 2005). As such, dyslexia continues to be misunderstood (Mills, 2018).

If negative experiences occur due to labelling, this can create greater emotional and behavioural challenges (Riddick *et al.*, 1999; Carroll & Iles, 2006). Nevertheless, there has to be an appreciation that this may vary depending on the dyslexic student. Misunderstandings may occur through the adoption of either a brain-based somatic explanation or a description-based definition. Without a fuller understanding, labels may adversely affect the psycho-emotional experiences of students with dyslexia in mainstream secondary school. Kauffman and Hornby (2020) argue, despite the challenges, there should be better ways to label rather than ending the practice altogether; without a label, students with challenges may be neglected. Vellutino *et al.* (2004) disapprove of how medical professionals test for dyslexia in students with dyslexia; such testing has minimal significance for learning or supportive interventions and is highly subjective (Sami, 2004; Campbell, 2017). Clinicians could focus less on psychometric tests for categorical labelling and more on supporting teachers to introduce suitable interventions that are personalised to meet individual requirements (Elliott & Grigorenko, 2014).

A much-debated question is whether a label can be perceived as risking financial demands on institutions with limited funding given the resources required (Hodge, 2016). Support for students with dyslexia in the UK remains inconsistent. Knight and Crick's (2021) empirical study of secondary data from the UK's Millennium Cohort it was found that gender, the season of birth, socio-economic class and parental income were all important predictors of the dyslexia label and can affect fair resource distribution. There may also be a connection between the diagnosis of dyslexia, resources, race, and social class in the UK (Elliott & Grigorenko, 2015).

Gillies (2005) identified the advantages afforded to middle-class students and used this analysis to better understand diversity and dyslexia. Politt, Pollock and

Waller (2004) also suggest that dyslexia may be used in some socio-cultural backgrounds typically middle-class caregivers to hide their child's lack of intelligence or laziness. Middle-class parents may be more proactive in getting their children diagnosed as they are more informed about dyslexia and possess cultural as well as economic capital (Nevill & Forsey, 2022). Essentially, some may navigate securing resources better than working-class parents or parents from less affluent backgrounds (Lareau, 2015; Stein, 2017; Snowling, 2019). Middle-class parents may use their wealth and knowledge as an advantage (Hartas, 2010). For example, they may use their knowledge and finances to secure an Individual Education Plan (IEP) or Education Health and Care Plan (EHCP) for their child (Reiman *et al.*, 2010).

Stein (2017) maintained that students from black, minority, working-class or lower-class communities who face the same challenges as white middle-class students may be less likely to obtain a diagnosis and support. Chapman and Tunmer (2019) also suggest that children from less affluent households who exhibit recurrent challenging problems with reading typically do not acquire the dyslexia diagnosis, because contextual variables can explain the issues, such as the child's family environment instead of brain-based ones. Socio-economic background, class or position may impact support provided to students with dyslexia (Macdonald & Deacon, 2019). In some countries, policies designed to improve inclusion education for students with disabilities, including dyslexics, may be seen by working class individuals with disabilities as ineffective (Nevill & Forsey, 2022).

Goswami (2014) suggests that dyslexia diagnosis occurs across all social classes despite socio-economic status and this viewpoint is supported by other researchers who argue that there is no link between dyslexia and social class or dyslexia and ability (Politt, Pollock & Waller, 2004; Riddick, Wolfe & Lumsdon,

2012). Dyslexia equally affects all sexes, races, and socioeconomic levels (Berman & Stetson, 2018). Furthermore, tensions may arise when devising effective teaching strategies for persons with complicated reading challenges, while considering neurobiological or environmental aspects (Chapman & Tunmer, 2019). Dyslexia can occur across the social spectrum, but socio-cultural factors can influence how likely it is that students with dyslexia will be supported with resources.

In some societies, for example, England and Jamaica, the label dyslexia can be used to secure supplementary learning resources and support (Duhaney & Salend, 2010; Kauffman, 2015). Nevertheless, a dyslexia label does not mean that students with dyslexia will secure all the resources needed to cope with their learning issues (Bercow Report, 2011). Nor will it guarantee they will be included in the classroom or achieve academic success (Lloyd, 2008). Anti-labelling educationalists believe that a label should not mean that students with dyslexia will receive additional resources compared to students with general reading issues (Elliott & Place, 2004; Elliott, 2005; Macdonald, 2010). Regardless of these challenges, labels can powerfully affect opinions and judgements and thus the support given to dyslexia students (Feroni & Rothbart, 2013).

2.5 Motivation for a confirmed diagnosis versus self-declaration/self-identification of dyslexia.

Students with dyslexia in mainstream secondary schools may have varying experiences depending on the dialectical relationship between themselves and the society. This may shape how they perceive themselves, and others' understanding of them, as well as influence their motivation to secure a diagnosis. A number of external factors, such as parents, educators, technology, professionals, and local authorities, can play a significant role in making decisions on this matter but there is

no consensus on methods used for a diagnosis or how it encourages inclusive cultures, policies, or practices (Booth & Ainscow, 2011). Nevertheless, students may be motivated to self-declare that they are dyslexic for different reasons. The researcher believes it is not just a question of having a disability and doing some tests or putting something in place to get a diagnosis but how these things interact and can shape the identity of a student with dyslexia. A socio-cultural theory and a bio-psycho-social approach gives consideration of both the person and the context when obtaining a dyslexia diagnosis.

Based on a bio-psycho-social approach (emphasising the individual as a biological and psychological entity) the American Psychological Society (2022) defines a diagnosis as a process of evaluating a person's symptoms using evidence and tools to determine the exact nature of their illness. In education, a diagnosis can be used to determine if an individual has a specific recognised learning disability (difficulty/difference/disorder), such as dyslexia. Therefore, they are entitled to (funded) support to address any difficulties they might have accessing the curriculum. The first stage in the process of securing a dyslexia diagnosis might be through screening, and universal screening has been recommended for all children (Catts & Hogan, 2021). Rack (2017) claims that if we are aware of the cognitive issues that underlie dyslexia, we may screen for them early on and support the processes involved in the initial stages of learning to read and write. A child could therefore undergo screening even before starting school (Sanfilippo *et.al.*, 2020). Systematic and data driven interventions, such as Response to Intervention (RTI), can recognise, classify, and remedy problems that students with dyslexia might experience (Brown-Chidsey & Steege, 2011). Andrade, Andrade, and Capellini (2015) assert that some current RTI models use a three-tiered strategy based on student needs, with more

intensive interventions at increasing levels. Every student receives tier 1 interventions since they are universal, while targeted tier 2 interventions are given to children who have difficulty, but still advancing and individualised tier 3 interventions are given to students who have not improved after receiving tier 2 interventions (Andrade, Andrade, & Capellini, 2015). It is therefore assumed that all students could be screened for dyslexia in tier 1, then proceed to the following tiers based on their need. However, the student and the context should be taken into consideration during the diagnostic process as this might shape students' response to intervention.

Since 2012, students in year one in classrooms in England are required to take the Phonics Screening Check, which is a one-on-one oral evaluation that involves reading real and made-up words (DfE, 2017). The Phonics Screening Check Evaluation Research Report (2014) argues that this method of teaching reading contributes to the preliminary stages of education and is well regarded by teachers (Walker *et al.*, 2014). A majority of the literacy coordinators surveyed stated that the results could help identify students with phonics difficulties, and some stated the results could help create specialised lesson plans for students with phonics difficulties, prompting Walker *et al.* (2014) to claim it is a useful universal screening tool. However, British Educational Research Association [BERA] (2016) asserts that children can pass phonics tests without extensive phonic knowledge and what the assessment is supposed to test is contested. Children's success in the phonics test could also be based on a dialectical relation between the student and their background. Phonics difficulty alone is unlikely to indicate dyslexia (Plummer, 2022). Other deficits, such as a phonological core deficit, are claimed to contribute to reading difficulties (as explained in Section 3.2).

Nuffield Early Language Intervention (NELI) is another recommended but not statutory universal assessment method (although not required by law) and can be understood from a systemic theoretical approach. The interaction between the students and the environment shapes the dyslexic student's identity and the process of diagnosis. According to West *et al.* (2021), the NELI programme is a tool that helps educators detect early language problems. It has been shown to foster students' language skills and shape a positive approach to learning (West *et al.* (2021). Snowling *et al.* (2022) have further developed the programme and suggest that although it can improve language development, reading comprehension and conduct, language development is not viewed as a priority in some mainstream schools. Problems with using this strategy can include scheduling and arranging sessions that require considerable attention, unclear delivery specifications, the availability of language screening records, and effective collaboration between educators to conduct the intervention. Developed from NELI and extensive research from the University of Oxford, Ox Ed reading screening was created (Ox Ed & Assessments, 2022). A virtual screening program allows children to be assessed for reading difficulties under the supervision of their teacher. This one-on-one assessment may be influenced by the relationship between the teacher and student. It is essential to consider the student in the context of their classroom when making recommendations based on the findings of the report, as this could influence their identity. The student's individual needs and circumstances can be considered, as well as the wider surroundings in which they are learning.

Typically, educators who have received training on a particular screening method conduct the evaluation (Fletcher *et al.*, 2021). Therefore, the results could

help teachers and parents start remediation practices so that students' learning is not disrupted. Based on the particular context, universal screening programmes may provide preliminary evidence, but they can also motivate parents to seek a professional diagnosis and more support if they believe their child is experiencing reading difficulties based on their socio-cultural understanding of dyslexia.

A professional diagnosis is not conducted by a teacher and can be secured at any age based on a series or combination of tests that involve speed, accuracy, and comprehension when undergoing reading tasks (Bazen *et al.*, 2020; Sadusky, 2022). This is performed by a professional or specialist, for example, a psychologist (Sadusky, 2022). To assess reading ability correctly, it is suggested there cannot be a single set of criteria, because reading is multifaceted, context-dependent, and changeable (Catts, 2018; Cilibrasi, & Tsimpli, 2020). Psychologists tend to use the DSM/-5 to assess whether an individual is dyslexic, which they refer to as a specific learning disorder (Tannock, 2015). However, overreliance on the DSM/-5 as part of RTI has been criticised; even though the DSM/-5 is included, there is no precise way to set it up and does not take into consideration the interaction between the student and their immediate environment (Brown-Chidsey & Steege, 2011). Döhla and Heim (2016) point out that the DSM/-5, or the International Statistical Classification of Diseases and Related Health Problems (ICD-10), cannot suggest tests or interventions to identify dyslexia which questions its suitability if used as part of systematic approach to understand and support students with dyslexia. It has been suggested that psychologists tend to use inconsistent evaluation methods or tools when operationalising the identification of dyslexia, which can be linked back to different constructions of this learning difference within the dyslexia debate and could

influence a diagnosis (Sadusky *et al.*, 2022). Despite these criticisms, RTIs can be used to maintain records of how students' function in school and respond to various treatment options (Cunningham, 2021). Some professionals and parents may be motivated to use the information from RTIs as part of a diagnosis, because the data is based on the needs of the student and the relationship between academic or behavioural intervention, as well as the student's response to the intervention, but its use should be person and context specific (Brown-Chidsey & Steege, 2011).

Based on a socio-cultural approach to dyslexia, students' identity can be shaped by their interactions with the society. Some students with dyslexia may perform at a typical level in school, or at least a level that does not cause concern to teachers or, indeed, parents in that context. Some may not be considered dyslexic based on RTI, and there is a 'wait to fail' conundrum before a diagnosis is given (Colker *et al.*, 2012). In certain cases, students might feel they are not performing to their potential, for example, they could excel in a particular area but be frustrated by the constraints of their dyslexia. According to Sako (2016), students with dyslexia may develop perfectionistic expectations to deal with their frustration, believing it is dreadful to make a mistake or struggle. In addition, RTI cannot be used to detect dyslexia in older students or adults or used as a global assessment tool; how it is defined and used in schools also appears problematic (Colker *et al.*, 2012; Petretto & Masala, 2017). Consequently, the information from RTI may not be as useful for older secondary students or university students who wish to go through the process of obtaining a dyslexia diagnosis. Daniel (2023) claims most dyslexia assessors use obsolete diagnostic tools that are not trustworthy and there is no nationally recognised identification process or guidance policy. The diagnosis of dyslexia using RTI can be

challenging, but it can provide some understanding of the interplay between the student and the context, which is consistent with CHAT (the theory of mediated action) and how tools facilitate human interaction.

While the bio-psycho-social model is evident in the process of diagnosing dyslexia, it is suggested that there is a need for improved diagnostic tools. Osa-Afiana (2022) suggests a more robust set of dyslexic assessments, including a diagnostic test of achievements, a visual and auditory perception test, and cognitive tests. While Rahul and Ponniah (2021) propose that testing for dyslexia should involve assessing academic, intellectual, and phonological abilities. Supporting this line of argument, Schulte-Körne (2010) suggests taking the assessment further to include a more comprehensive diagnosis, considering interventions if received, the child's developmental record, school history, mental state documents, socio-cultural background, and relationships with family and friends. Identification systems are culturally and historically contingent, and as such, vary between countries. Therefore, caution must be exercised in extending this finding to other contexts, especially when using a systemic approach. The survey recommends that key components, such as school history and teacher input, must be understood in the context of teacher training and understanding the assessment tools (which also vary across contexts) (Peries *et al.*, 2021). This recommendation is necessary if parents require feedback from teachers to acquire a dyslexia diagnosis for their child (Cunningham, 2021).

In line with the bio-psycho-social approach, technology, such as neuropsychological or biomarker-based techniques, can contribute to the process of diagnosing dyslexia. Electroencephalography (EEG), Functional Magnetic Resonance Imaging (fMRI), and Positron Emission Tomography (PET) are brain screening tools

that can show abnormal brain development and help detect dyslexia (Yuzaidey, *et.al.*, 2018; Ortiz *et al.*, 2019; Ahire *et.al.*, 2023). There is also a new method to diagnose dyslexia using 1D-CNN based on the Electrooculography (EOG) signal (İleri, Latifoğlu & Demirci, 2020). These methods have generated interest in recent years and may be used in the practice of diagnosing dyslexia but focuses more on the accuracy of the tools rather than on the relationship between person and their environment (Janković, 2022). Scientific studies have, however shown that dyslexia diagnoses can be incorrect based on the results of neurological assessments, which may impact the experiences and identity of students with dyslexia (Kurokami *et at.*, 2019). Although helpful in determining neurological causes of dyslexia and difficulties with reading, they cannot distinguish dyslexia from other reading problems and this limitation appears unlikely to change soon, which contributes to the complexity as previously discussed (Sanfilippo *et.al.*, 2020).

Some parents might welcome using information and communication strategies as they can show certain problems that may be the reason for the child's learning difference (Al-Barhamtoshy, & Motaweh, 2017). The central areas covered in this tool are hearing, vision, reading, spelling, writing, speech, memory, maths, time management, and health-all key components of learning but diagnosing dyslexia is far more complicated and are not limited to only these components (Al-Barhamtoshy & Motaweh, 2017). Caregivers may be motivated to allow for gaming to be used as part of the dyslexia diagnosis process; one example is a linguistic web-based Spanish game titled Dydetective, which is recommended for older students but not yet available in English (Rello, 2016). Research in computer science demonstrates the ingenuity of mobile applications used to diagnose dyslexia (Martins *et at.*, 2016). Computational

analysis, gaming, neurotechnological tools and applications, if used in the process of diagnosing dyslexia, are limited in accuracy, comprehensiveness, and applicability within some socio-cultural backgrounds ((Eaton, & Illes, 2007; Istace, 2022). The outcome may also rely on the perception and precision of the person conducting the assessments (Eaton, & Illes, 2007; Istace, 2022). There are also identity, confidentiality, social, and ethical concerns regarding these technologies, which may impact parents' and students' motivation to incorporate these tools in the process of acquiring a dyslexia diagnosis (Eaton, & Illes, 2007; Istace, 2022).

These novel, innovative, and technological diagnostic methods are grounded in a bio-psycho-social approach to understanding dyslexia. However, not all students with dyslexia will have access to these resources as part of a professional diagnosis. This is because they can be expensive, and not all professionals who provide confirmed dyslexia diagnoses have access to or training in using them (Snowling, 2019; Kim, 2021; Jaymon *et al.*, 2021). In the UK, private assessments for dyslexia are not funded by the National Health Service (NHS), as it is not considered a medical condition (BDA, 2023). There is no direct route to a formal diagnosis via a local authority or school where dyslexia is not recognised as a specific learning disorder in that location (BDA, 2023). An EHCP, if acquired, specifies the additional individualised support needed for those with dyslexia and is a statutory requirement for children and young people up to the age of 25 (DfE, 2022). In the South West of England, it can be difficult for a student with dyslexia to get an EHCP (BDA, 2022). However, parents have the right to appeal the local authority's decision if they are dissatisfied with the support specified in the plan or lack of an EHCP or both (BDA, 2022). The Devon County Council has adopted an identification tool created by the

Wiltshire City Council - the Devon Graduated Response Tool for SEND Support.

This is an electronic tool that helps teachers and SENCOs identify, evaluate, and record the special education needs of children and young people; it also offers advice for reviewing progress as well as plan and document suitable provisions (Devon County Council, 2017). Devon Local Authority can use it to evaluate whether schools provide the resources necessary to meet the needs of all students and to check if schools have already taken adequate, relevant, and meaningful action before requesting additional assistance (Devon County Council, 2017). Information from this tool can help parents understand the needs of their child when seeking support, however, affordability can be a determining factor in seeking a diagnosis (Stein, 2017). De Jong (2020) suggests that in addition to money, parents' racial background and language differences may also affect their motivation to pursue a professional diagnosis.

In some circumstances, students with dyslexia are more likely to experience educational challenges and mental health problems than their peers (see Section 3.2). These challenges may motivate them to seek understanding and solutions (Giovagnoli *et al.*, 2020; Wilmot *et al.*, 2023). Students with dyslexia may self-declare or identify with a learning difference, despite the failure of some local authorities to recognise dyslexia as a disorder warranting diagnosis and support (Bodkin, 2019). Age and cognition may also shape students understanding of their learning difference and motivate them to self-identify. According to Battistutta, Commissaire and Steffgen (2018), young people who receive an assessment at an earlier age can increase their understanding of dyslexia as they grow older, which can also translate into improved academic performance. On the contrary, some students with dyslexia may not be diagnosed early in their education and these students understanding of dyslexia and

academic success may differ from those with a sooner diagnosis (Shaywitz, 2003; Sanfilippo *et.al.*, 2020).

Various socio-cultural factors and challenges may cause some students with dyslexia to discourage their parents from seeking a professional diagnosis based on their perception of others' experiences. Some may prefer to avoid that situation by identifying as dyslexic based on their own symptomology or experiences, including transformational moments and challenges within their environment (Cameron, 2021; Protopapa & Smith-Spark, 2022). The ability to consider different viewpoints, deductive thinking, linguistic or grammar proficiency, are necessary for reading, especially among older students and some students with dyslexia are aware of these skills (Snow, 2018). If these are not achieved, they may provide their own understanding for their challenges (Cameron, 2021). Individuals' understanding or misconceptions of their weaknesses in reading, writing, and spelling can impact whether they give or delay self-declaration (Catts & Hogan, 2021). Self-identification might help students with dyslexia give meaning to or explain why they experience psychological, emotional, and social difficulties, especially in their late teens or when older, or when a professional diagnosis is not forthcoming, available, or specific (Wissell, Karimi & Serry, 2021).

Once self-identification or declaration is made, students with dyslexia may be motivated to give self-reports to their school, which could be used with teacher documentation to gain access to some support. According to the BDA (2023), if a teacher has concerns about a student's dyslexia, they should consult with the school's SENCO to establish an action plan. Rather than waiting for an official diagnosis, it is crucial that the right aid is provided as soon as a need is detected. As required by the

SEND Code of Practice (2015), teachers are obligated to inform and engage parents and students in discussions to support the learners' needs. Senior leaders and the SENCO are mandated to approach, detect, and support students with dyslexia (NASEN, 2015). Tamboer and Vorst (2015) suggest that self-reported contributions from the dyslexic student can be useful in the assessment/professional diagnosis. Gibson (2006) claims that despite these efforts, there are still barriers to students with dyslexia having a voice in school, which could make conversations regarding the process of support and diagnosis difficult (see Section 5.5). Therefore, more inclusive ways to moderate these challenges are encouraged, so that students are motivated to engage in the process (Gibson, 2006; see Section 5.4).

Although voices could be limited, personal or narrative reports can help us understand dyslexia and help identify and support students (Gibson, 2012; Raghuram *et al.*, 2019). Riddick (2009) shared different perspectives and experiences on dyslexia, including the views of children and how they identified themselves as dyslexic. Donovan and Marshall (2016) argued that children's verbal self-reports on spelling identification are useful for assessment and targeted support. Nevertheless, most of the research on the experiences of especially older individuals with dyslexia has been dominated by professional perspectives, and self-reports among this population are claimed to be insufficient (Nalavany, Carawan & Rennick, 2011). Hence, the importance of the present research in filling this gap in literature, as all secondary and university participants were motivated to provide self-accounts on the topic and all self-identified as dyslexic, along with the secondary school participants.

The drive to get a professional diagnosis versus self-declaration/self-identification of dyslexia is complicated and contextual. Past and previous research

cannot make definitive claims about ‘how dyslexic a student is’ because they have self-declared or because they have not been able to go down the route of obtaining a professional diagnosis. We cannot be certain where the information comes from that influences students with dyslexia to self-declare, but we can assume that their experiences and knowledge of dyslexia may influence their decision. In other words, the key to this discussion is understanding the complex relationship between students with dyslexia and the society around them. This relationship is two-way, as students with dyslexia are both shaped by and shape the society in which they live.

2.6 Grouping by ability

According to Ainscow and Booth (2022), in a truly inclusive learning environment students learn cooperatively with one another. It is about students realising their own worth and embracing who they are. Despite a student’s learning difference confirmed dyslexic or not, they may be separated from learning alongside their peers if they are recognised by their school as having a special learning need and in need of that type of support (DfE, 2015). Grouping by ability is a common practice and the majority of students with dyslexia are in mainstream schools (DfE, 2022). Sansour and Bernhard (2018) suggests, it is challenging financially to provide support services that are inclusive for students with dyslexia, therefore, financial resources can impact the type of support model implemented. Sansour and Bernhard (2018) describe two types of models - input- or child-based, as well as a resource-based or throughput model. They suggest that input model represents a system that claims pupils must be identified appropriately to receive specialised services that suit the requirements they may have. Within the inclusive class, which has a resource allocation, the resource-based approach includes a range of special services. The

system's organisational structures and the financing of special services have an impact on the classroom's pedagogical environment. It can be inferred that the model chosen influences supportive strategies chosen within the classroom, and some approaches may not always reflect inclusive values.

Ability grouping may include streaming, setting and within-class groupings (Sukhnandan & Lee, 1998). Ability grouping such as streaming can be defined as delivering various curriculum requirements to groups of students based on their academic abilities, categorising different pupils through skill classification, or placing them in special groups from their original schoolroom with more educators (Flecha, 2015). According to Her Majesty Inspectors of Schools (1979), setting refers to rearranging students according to their proficiency in a particular subject, while within-class grouping is a strategy that involves breaking a class into smaller groups and giving individual instructions to each group (Sørensen & Hallinan, 1977). Literacy attainment has historically played a role in streaming and setting (Taylor *et al.*, 2002). Streaming has become much less prevalent with a move to ability grouping for specific subjects, nevertheless it continues today (Tereshchenko *et.al.*, 2019).

Streaming students with dyslexia may lead to social exclusion (Flecha, 2015). For others it may be confusing to alternate between learning settings and peers, particularly where there are problems with their organisational skills (Lithari, 2019). Additionally, the stream that students are put in for English can become the stream for all other subjects in some secondary schools (Her Majesty Inspectors of Schools, 1979; Hallam *et al.*, 2002). Nevertheless, it is claimed that all students are grouped in school according to some criteria, which can be ability (Baines, Blatchford & Kutnick, 2003). In addition to this, most English schools use ability or attainment grouping (Lithari, 2019; Taylor *et al.*, 2022). Within-class grouping, however, may

involve grouping students with friends for instruction. This strategy benefitted dyslexic students in two secondary schools in Barbados (Blackman, 2010). This research claimed that being grouped with friends positively impacted classroom participation; students were able to discuss ideas and increase their understanding and reported increased comfort levels due to a sense of belonging (Blackman, 2010).

Barrance (2020) uses information from two studies on students' perceptions of the General Certificate of Secondary Education (GCSEs) in Northern Ireland and Wales. The earliest is a mixed-methods study conducted at Queen's University Belfast, and data was collected between 2014 and 2015. This was followed by Wales Institute of Social and Economic Research and Data (WISERD) Education multi-cohort study, developed by Cardiff University's School of Social Sciences. In 2017, the yearly WISERD Education survey for 14- to 15-year-old GCSE students included inquiries about tiering. The article suggests that there are various types of detrimental consequences of tiering on students taking foundation tier.

2.7 Chapter summary

The literature review identified dyslexia as a highly contested topic and the trustworthiness of much published research using particular definitions can be problematic. Descriptive and discrepancy-based definitions provide an understanding of dyslexia but neglect context. Discrepancy-based definitions, however, focus too heavily on difficulty and therefore, fail to consider the role of culture and social environment in shaping students with dyslexia identity and psycho-emotional experience, instead emphasising the remediation of their learning difference (Barnes, 2012). This chapter aimed to provide knowledge and has suggested that

conceptualisations or definitions of dyslexia might impact the psycho-emotional experiences of students with dyslexia in a mainstream secondary classroom.

Definitions can impact educators understanding when comparing poor readers and students with dyslexia as there are different perspectives and social constructions surrounding dyslexia (Nicolson, 2002). Perspectives may differ on the difference between students with dyslexia and poor readers. The DfE (2001) and the UK House of Commons Science and Technology Select Committee (2009) claim there is no difference between poor readers and non-dyslexic learners. They also suggest that reading interventions for students with dyslexia are the same for all struggling readers. Alternatively, Stein (2018) suggests that, while poor readers and students with dyslexia share the same cognitive phonological deficits, the underlying causes can vary between students, making students with dyslexia different from poor readers. Adubasim and Nganji (2017) claim there is a difference between the cognitive phonological deficits of poor readers and students with dyslexia. They differ however, in how they gain knowledge, decode their words and in their cognition (Stanovich, 1994; Stoodley *et al.*, 2008; Burkitt, 2019). Knight and Crick (2021) maintain that it is impossible to identify every factor associated with diagnosing dyslexia; thus, to provide a meaningful assessment of students with dyslexia psycho-emotional experiences in mainstream secondary classrooms, variable factors should be closely scrutinised with focus on the interplay between the person and the context.

There are different viewpoints about labelling dyslexia and how this may impact the lives of people (Gibbs *et al.*, 2020; Cameron, 2021). Labels and categories can serve a purpose (Hollenweger, 2013). Students may fall into the group of those classified as dyslexic and, yet exhibit unique characteristics associated with this learning difference. Therefore, the use, adoption and benefits of the dyslexia label

should be carefully considered (O'Brien, 2018). Dyslexic students' psycho-emotional experiences regarding labelling may vary in mainstream secondary classroom. Some students with dyslexia do not want a dyslexia label (Jacobs *et al.*, 2020). While others believe it provides an explanation of their learning difference (Reid & Guise, 2019), increasing positive psycho-emotional experiences while shaping their identity (Alexander-Passee, 2015). Labels are likely to have different meanings for students with dyslexia (Gabriel, 2020). The outcomes varies depending on the student and how the label is used, for example, in grouping by ability.

Students from lower socio-economic backgrounds and some cultures may be less likely to be diagnosed with dyslexia, as they may not have access to the same level of educational resources as students from higher socio-economic backgrounds or cultures that place a high value on literacy (Hartas, 2010; Pumfrey, Pumfrey & Reason, 2013). Hence, the process of getting a diagnosis for dyslexia may be different. In addition to this, the way that others view students with dyslexia may impact their experiences in school. Students with dyslexia may be seen as different by their peers and teachers, which can lead to stigmatisation, therefore them not wanting a diagnosis/label (Green *et al.*, 2005; Hornstra *et al.*, 2010). The motivation to get a diagnosis for dyslexia can also be different for dyslexic students from different socio-cultural backgrounds. Students from different cultural backgrounds may also have diverse beliefs about dyslexia, which can affect their motivation have a label or get a clinical diagnosis (Knight & Crick, 2021). The next chapter explores the bio-psycho-social model as a theoretical framework that helped to provide an understanding of dyslexia from different perspectives.

Chapter 3

Bio-psycho-social model and dyslexia

3 Bio-psycho-social model and dyslexia

3.1 Introduction

It has been argued that models are social constructions of an actual phenomena that need to be critically examined for their suitability in informing and guiding actual events (Gable, 2014). Some models include multiple explanations, however, Gable notes that models which concentrate on a single explanation may cause an enculturation of teachers into reductionist understandings of disability, thereby restricting the creation of inclusive educational environments. Biological models attribute dyslexia to neurological and neuroanatomical dysfunction or abnormality (Kuhl *et al.*, 2020; Pérez, 2020). This implies that brain structure and genetics can impact dyslexia and produce cognitive dysfunction (Elliott & Nicolson, 2016; Kim, 2021; Surushkina *et al.*, 2021). No one theory can explain all the differences that students with dyslexia encounter when striving for literacy (Rice & Brooks, 2004). Additionally, it is not sufficient to use a simple explanation of causation or model to support inclusive practices (Elliott & Grigorenko, 2014). The bio-psycho-social model, however, allows the identification of a person's experience with dyslexia across bio-psycho-social areas. This informs a nurturing educational setting that fosters a good understanding of dyslexia and crafts the most beneficial environments for creating and carrying out organised, ordered, holistic education initiatives that best suit individual requirements (Hudson, 2016). This model is like Frith's causal model of developmental psychopathology (Morton & Frith, 1995). The biological, cognitive, and behavioural levels contribute to the understanding of dyslexia (Knight, 2018). Later, an environmental factor was added, which may influence the three levels

(Kuerten, Mota & Segaert, 2019). The aim of this chapter is to introduce biological and psychological, or cognitive, models, as well as the social model of disability.

3.2 Biological and psychological/cognitive models

The BDA (2012) suggests that 15% of the British population may be genetically susceptible to dyslexia suggesting a medical model. However, no specific gene can be identified from the nine variants held to cause dyslexia (Reid & Guise, 2019; Grigorenko *et al.*, 2020). Dyslexia may have a hereditary or genetic component (Jordanova, 2020; Hulme, Snowling & Nation, 2020). Parents may pass dyslexia to their children (Hoyles & Hoyles, 2010). Some families are at a greater risk of passing down dyslexia (Jaymon *et.al*, 2021). However, here is no single underlining explanation (Fisher & DeFries, 2002).

Besides explaining how the brain and genetics impact dyslexia, prior studies have found that the environment also plays a role (Jaymon *et.al*, 2021). Miciak and Fletcher (2020) suggest that heredity may be clearly impacted by the atmosphere of reading and instruction provided at home. Additionally, Rose (2009) maintains that the influence of genes, the level of reading difficulty, and long-term consequences can be influenced by various environmental factors. Therefore, the brain is developed from an intricate and unpredictable interaction between one's genetic inheritance, the surroundings encountered, and the way the brain is now developing, rather than from some innate pattern (Nicolson & Fawcett, 2010).

In addition to genetic and hereditary components, prior research has found abnormalities in the brains of students with dyslexia (Hadzibeganovic *et al.*, 2010). For example, the temporoparietal, parietal, occipitotemporal region and hippocampus can affect typical reading skills, learning and memory (Protopapas & Parrila, 2018;

Miciak & Fletcher, 2020; Pérez, 2020). Müller-Axt, Anwender and Kriegstein (2017) argue that limited structural connections within the left visual thalamus and left primary visual cortex can affect rapid naming abilities in students with dyslexia. Mather and Wendling (2011) suggest that as students with dyslexia grow older, they may use their right hemisphere systems to compensate for their inability to make sound-print associations, and intervention may help improve brain activity. In contrast to Mather and Wendling, Ramus *et al.* (2018) maintain that identifying brain abnormalities as typical of those with dyslexia may be misleading, and careful consideration is required when making these suggestions.

Recent studies aid understanding of the connection between neurological functioning and dyslexia. In Perrachione *et al.* (2016) empirical study to assess neurophysiological adaptation to stimulus repetition in adults and children with dyslexia, it suggests reduced neurophysiological adaptability in people with dyslexia, both adults and children. It was shown that dyslexia greatly affected the ability to adapt to speech from an unaltered tone. In people with dyslexia, repeated phrases, objects, and faces also produced poorer development. The level of brain adaptability and reading ability can also be linked to being dyslexic (Perrachione *et al.*, 2016). Similarly, Vanderauwera *et al.* (2017) carried out a neuroscientific study that looked at neural anomalies in children with dyslexia and found pre-reading anomalies related to dyslexia. While these findings add to our understanding of dyslexia and its neurological underpinnings, the connection to the psycho-emotional experiences of students with dyslexia in mainstream secondary schools is unclear.

Livingston, Siegel and Ribary (2018) argue that dyslexia and biology have received little attention, and this applies to the literature on emotions and dyslexia. Despite limited research, psychological models highlight negative self-perceptions

linked to disability that inhibit self-realisation (Ebersohn & Eloff, 2004). Babcock LDP (2018) suggests that managing both students' negative symptoms and their psycho emotional and progression needs is required. Blackwell, Trzesniewski and Dweck (2007) suggest teachers should understand the mindsets of secondary school students. Considering how students with dyslexia develop, adapt and approach challenges during their learning experiences can have a negative or positive impact on their identity (Blakemore, 2018; Lithari, 2019; Hohnen, Gilmour & Murphy, 2019). Secondary school students, including students with dyslexia, are susceptible to learning challenges that may arise while navigating difficult psycho-emotional interactions in the classroom (Hohnen, Gilmour & Murphy, 2019). Issues may arise from risk factors associated with intersectionality, which are the various contexts, circumstances, dates, places, and different approaches for comprehending particular relationships and personalities (Vincent *et al.*, 2012). Such issues related to intersectionality and dyslexia may affect available support systems and inclusive practices in mainstream secondary schools (Gibby-Leversuch, Hartwell & Wright, 2019).

In this research, psycho-emotional well-being is defined as a state of both physical and mental health (DfE, 2018; Morgan, 2018). Well-being can also include social and spiritual wellness (Toma *et al.*, 2014). The way students think, feel, and are treated may affect the way they learn and their willingness to go to school (Chodkiewicz & Boyle, 2014; Fragel-Madeir *et al.*, 2015). This could potentially influence their mental health (Caravolas, 2012). Recent studies confirm that students with dyslexia may display negative thinking, leading to psycho-emotional issues, e.g., low self-esteem, low self-concept, sadness, loneliness, depression, suicidal ideation,

fear, anxiety, disengagement, emotional trauma and learned helplessness (McBride, 2019; O'Brien, 2020).

Dyslexic students may in extreme cases display externalising behaviours such as misuse of alcohol, cigarettes, or drugs, as well as violent and unlawful conduct activities, such as ruining other people's property, deception, theft, fraud, and intimidating people (Dahle, Knivsberg & Andreassen, 2011). Young people's coping mechanisms and family environments may influence how bullying affects them, whether they are the bully or the victim (Dardas, *et.al.*, 2022). Furthermore, they may display social, thought and attention problems, such as daydreaming (Dahle, Knivsberg & Andreassen, 2011). Stress can arise when students with dyslexia compare themselves to their peers in self-defeating ways, with an adverse effect on their classroom participation (Alexander-Passe, 2006). Gender can also contribute to the psycho-emotional experiences of dyslexic students. Lower average scores in general and academic self-esteem, as well as moderate depression, can be caused by gender differences, with females utilising higher levels of emotion and avoidance-based methods of coping. Males typically apply more task-based coping, which results in self-esteem levels in the normal range and little depression (Alexander-Passe, 2006).

Prior studies have found that psycho-emotional issues may compound or exacerbate the challenges associated with dyslexia; adolescent students with dyslexia may lack self-confidence, be sensitive to criticism, constantly self-doubt and experience competitiveness syndrome (Eissa, 2010; Anderson & Meier-Hedde, 2017). Vygotsky (1999) posits a connection between emotion, cognition, and behaviour. Emotions are part of the brain mechanism that processes information and regulates actions; students with dyslexia emotions affect their actions in two ways – by

affecting their everyday thinking and behaviour, and thus their classroom experience (Mitchell & Sutherland, 2020).

Research to date strongly suggests that students with dyslexia may experience literacy challenges and negative psycho-emotional issues that continue through university (Rouweler, 2021). Jordon *et al.* (2014) empirical study focused on anxiety around mathematics and statistics, and mental health, in undergraduate students with dyslexia and found that students with dyslexia in university display more symptoms of psycho-emotional issues, such as depression. Both Jordan *et al.* (2014) and Carroll & Iles (2016) found that students with dyslexia may have higher levels of social and academic anxiety. In similar empirical research by Kalka and Lockiewicz (2018) with Polish state and non-state university students with and without dyslexia, resilient students experienced more life satisfaction and happiness, while students with dyslexia had lower levels of lifetime fulfilment, constructive feelings, and resilience. The optimum environment for learning and cognition is one where there are positive cycles of learning and students with dyslexia want to progress in school while simultaneously displaying a positive mind-set (Hohnen, Gilmour & Murphy, 2019).

Conner (1993) addressed educational restructuring in the United States. The report highlighted the importance of psycho-emotional well-being among students. Factors such as personal control can shape their education and development. They also have their own understandings of their psycho-emotional encounters, which help give meaning to their experiences in the classroom (Mortier *et.al.*, 2011). Semigina *et.al.* (2020) explained key strategies for creating a relaxing learning environment to manage and maintain students' psycho-emotional well-being, suggesting an organisational, motivational, competent, educational, and cognitive model for structuring a welcoming learning environment. Some of these strategies can be

evidenced in relationships and structures that can help create inclusive supportive classrooms that shape the students' identities.

In the past there was not much research on the psycho-emotional experiences of students with dyslexia, but Moore (1979) acknowledged the importance of psycho-emotional support in the field of special education. Moore's guide covered the development of plans and the construction of play and learning environments for children with special needs. It discussed children with developmental difficulties and the majority of mild to severe difficulties. It excluded children with health issues, and serious psycho-emotional issues. The psycho-emotional well-being of students with dyslexia in relation to the topic was not investigated. According to Burden (2008), the human aspect of dyslexia has been neglected in the literature regarding students with dyslexia and their feelings in the classroom. However, some recent literature uses the term psycho-emotional to describe and explore the experiences of university students with dyslexia. Farrugia (2019), looked at the difficulties that University of Malta students with dyslexia experienced, as well as how these influenced their mental health. Participants' accounts suggest that different situations shape psycho-emotional encounters, which supports the researcher's theoretical position that there is an interplay between person and context. Similarly, Jacobs *et.al.* (2022) claim students with dyslexia face significant social and psychological as well as intellectual challenges in their education, and they can find it difficult to adapt to university. Likewise, Gintere (2022) claims that creating an environment that recognises student's psycho-emotional well-being reduces the risk of students dropping out of university. Cameron's (2016) study also explored the lived experiences of students with dyslexia, recognising their psycho-emotional experiences and the development of coping skills.

The term can help educators understand not only students' performance, but also how students' psycho-emotional well-being may shape their academic achievement (Molina-Muñoz, Contreras-García & Molina-Portillo, 2023). Psycho-emotional well-being is also recognised as a significant component of a teacher's own professional demeanour, which includes stress management, and thus contributes to students' experiences in school (Baitukbaeva, 2013; Kondaurova *et.al.*, 2018; Pak, Yeltayeva & Nurgabdeshev, 2020).

Cognition may affect students with dyslexia psycho-emotional well-being as their understanding is not only linked to their neurological functioning and learning environment but also their socio-cultural background. Though it is not the source of emotion, cognition offers us the ability to try and control our emotions or make decisions after becoming aware of them (Burkitt, 2019). Students can learn and understand their emotions through social mediation, activity, and a collective emotional frame. They develop self-awareness. That is, culture and history play a significant role in human cognitions, emotions, and action (Roth, 2007; Burkitt, 2019). Similarly, Chodkiewicz and Boyle (2014) claim that the way we interpret why an event occurs, rather than what happens, can determine how we respond and behave. Understanding cognition can assist in understanding the psycho-emotional experiences of students with dyslexia in mainstream secondary school.

Psychological or cognitive models incorporate an understanding of dyslexia on a mental level, providing an understanding of what is both essential and adequate for the creation of meaningful actions (Elliott & Grigorenko, 2014). Recent studies demonstrate that dyslexia can be understood from a phonological deficit perspective (Johnston, 2019; Everatt & Denston, 2019; Stein, 2019). Siegel (2006) and others suggest that students with dyslexia have difficulties with phonological decoding,

awareness, speed, and response accuracy (Saksida *et al.*, 2016; Shaywitz *et al.*, 2016; Rack, 2017). It is accepted that dyslexic students struggle to learn to read because they lack the ability to separate the sounds of a word from their visual letter equivalents (Stein, 2018). However, these may not be the only factors potentially affecting students with dyslexia learning and development in a mainstream secondary classroom. Dyslexic students may also lack phonemic awareness or the skill to separate spoken words into phonemic components, which is especially important for reading (Elliott & Grigorenko, 2014). Phonemic awareness is distinguishable from phonics, which describes a teaching strategy that promotes the acquisition of reading and spelling skills by teaching students how to express sounds in writing and the links between sounds and letters (Mather & Wendling, 2011). Dyslexic students may encounter problems in their illustrations, storing or retrieving verbal communication sounds, and may perform below average on tasks connected with phonological awareness (Ramus *et al.*, 2003). This claim is criticised for focusing excessively on data functioning mechanisms that have to do with graphical, aural, and sequential processing (Frith, 1999).

To date, research on phonological explanations of dyslexia has been unable to account for all aspects related to cognition and dyslexia (Snowling, 2013; Stein, 2018). Alternative perspectives include the magnocellular deficit theory where an abnormal magnocellular system plays a role in dyslexia and the cerebellar theory of dyslexia (Frith, 1999). Scholars and professionals who adopt a magnocellular deficit theory of dyslexia assume that the temporal processing system is not properly developed in students with dyslexia, causing visual and hearing problems (Stein, 2001). This theory is contested as what it identifies as the problem may be a secondary cause of dyslexia related difficulties and not the direct cause (Olulade,

Napoliello & Eden, 2013). Those who adopt the cerebellar theory of dyslexia assume the cerebellum is slightly dysfunctional in students with dyslexia (Stoodley, 2016). This causes cognitive problems as its primary roles are in motor control and speech communication (Fawcett, 2001; Nicolson, Fawcett & Dean, 2001). Ramus *et al.* (2003) suggest that delayed or dysfunctional expression can lead to problems in phonological representations in students with dyslexia as their inability to consistently engage in learned tasks could impact their learning of grapheme-phoneme correspondences (Ramus *et al.*, 2003). Dyslexic students may also have difficulties automatising both cognitive and motor skills, and such difficulties can be directly attributed to problems in cerebellar functioning (Rice & Brooks, 2004). Although this theory provides an understanding of dyslexia, it fails to explain how cognition affects dyslexic students' learning and their psycho-emotional experiences in an inclusive classroom. Ongoing research is investigating the relationship between the brain (amygdala, prefrontal cortex, and sub-cortical area), emotion and cognition (Johnson, 1999; Mesquita, 2012). While the biological and psychological components are important, socio-cultural factors or environmental factors are also crucial in understanding dyslexia (Firth, 1999).

3.3 Social model of disability

Disability according to the deficit model implies that students with dyslexia lack some ability (Gold & Richards, 2012). The Convention on the Rights of Persons with Disabilities (CRPD, 2006) adopts a social model of disability, suggesting that disability is constructed through the connection between people with disabilities and the psychological, social, and physical barriers that prevent them from fully and equally engaging in society (WHO, 2011). Similarly, the Equality Act (2010) adopts a

social model perspective, recognising disability as a problem that can hinder daily functioning. While the Equality Act (2010) and UK legislation view dyslexia as a disability, the SEND Code of Practice and the Children's Family Act refer to dyslexia as a special education need and affect how dyslexia is contextualised in a mainstream secondary classroom (Bainham & Gilmore, 2015; Tutt & Williams, 2015; Macdonald, 2019).

The psycho-emotional experience and inclusion of students with dyslexia can be socially created or socially constructed by their environment (Booth & Ainscow, 2002; WHO, 2007; O'Brien, 2020). This is echoed in how dyslexia is defined as a disability or learning difference or both (Hodkinson & Vickerman, 2015). Prior studies have established that disabling environments create social obstacles to inclusion, including inappropriate pedagogic strategies (Vellutino *et al.*, 2004). Negative attitudes and institutional discrimination towards students with dyslexia may also play a role in disabling settings (Booth & Ainscow, 2002; McDonald, 2009; Armstrong & Squires, 2015; Riddick, 2011). Booth and Ainscow (2002) suggest that institutional discrimination can stem from societal and cultural influences that shape one's beliefs and behaviour towards others. Institutional discrimination and negative attitudes may cause students with dyslexia to have negative experiences which might shape their identity. While the social model strives for the social inclusion of persons with disabilities, it has been criticised as focusing too much on social barriers to participation, without giving much attention to other aspects of having a disability (Bøttcher & Dammeyer, 2012; Macdonald, 2019).

Disability can be viewed as an abnormality or barrier only if the student with dyslexia views and acknowledges their learning difference as such (Shakespeare, 2013). According to the Index for Inclusion (IFI), learning and engagement barriers

can be present in the environment or develop due to interactions between learners and their situations, other individuals, laws, organisations, traditions, and socio-economic circumstances, which have an impact on their life (Booth & Ainscow, 2002). A research perspective that adopts a difference discourse view argues that “normal is a construction that allows us to protect ourselves from disruption, to hide from the imperfections about which we feel the deepest shame in ourselves” (Florian, 2007, p. 7). Such claims have been strongly contested in recent years. Florian (2013) criticises this perspective as it fails to address the social challenges related to disability and special needs. It is the socio-cultural context that defines what is normal and anything outside of that is seen as aberrant (GEMR, 2020). Normal is a construct that influences what may be viewed as an appropriate standard in education. For example, strong reading and writing abilities may serve as the cornerstones for adept academic achievement and appropriate day-to-day functioning (Valentina, Mihić & Andreja, 2017). This example implies that proficient reading and writing skills are two of the most significant educational and life skills that one can acquire in a society (Griffin & Murtagh, 2015). Literacy and success in school could be viewed as an important normal life accomplishment in some societies, but not all (McDonald, 2009). Moris (2018) suggests the more literate people there are, the more they learn and participate in their society’s development. This claim is not accepted universally. The cultural tools used to achieve literacy should be viewed in the context of a particular society and period to understand how students with dyslexia feel and develop their own perspective of being dyslexic.

The social model seeks to empower people who may feel disadvantaged by helping them dissolve the barriers within their culture in regard to inclusive activities by fostering social action (Shakespeare & Watson, 2002; Swain, Griffiths & Heyman,

2003). A weakness of this model is that it assumes students with dyslexia generally experience negative consequences due to their disability. However, dyslexia can have little impact in one country, while in others it can be a significant impediment. (Frith, 1999). Additionally, it is criticised for inappropriately separating disability from impairment and over-socialising people with disabilities (Nevill & Forsey, 2022).

A further criticism of this model is that factors other than those mentioned in the model may impact how students with dyslexia view themselves or how educators view students with dyslexia. The interaction of biological, psychological, and social elements can produce action and impact psycho-emotional experiences, as well as the identity of students with dyslexia in mainstream secondary school (Borrell-Carrió *et al.*, 2004; Roth, 2007). Other theories derived from the social model of disability include some of the above elements to mitigate its weaknesses. The interactionist standpoint considers the role of social elements but also biological and psychological factors, which are key in understanding how persons with limitations engage with disabling environments (Erikson, 1959; Nathan & Brown, 2018). The affirmative or active model views disability from an optimistic perspective, not only as a limitation and is premised on a socio-cultural understanding of dyslexia (Swain & French, 2000; Cameron, 2011; Levitt, 2017). On the other hand, the psycho-emotional model or psycho-emotional disablism views disability from a subjective feelings' perspective (Thomas, 2004; Liddiard & Goodley, 2017). A social-relational model views disability from both a bio-psycho-social and socio-cultural approach, focusing on an interconnective perspective between impairments and restricting obstacles (Martin, 2013; MacDonald, 2017).

3.4 Chapter summary

There is no single theory that can fully explain dyslexia, which is why there is so much debate about it. However, different theories can help us to understand how dyslexia affects students and how it shapes with their identity and the context in which they learn (Barden, 2016). The bio-psycho-social model attempts to provide a broader understanding of the concept by incorporating different explanations, including factors affecting students with dyslexia psycho-emotional well-being in mainstream secondary classrooms. The biological component relates to genes and brain anatomy, providing insight into why certain people with dyslexia face reading challenges (Protopapas & Parrila, 2018; Snowling & Nation, 2020). While the psychological component focuses on how emotions and feelings may influence students with dyslexia identity (Jordon *et al.*, 2014).

Both biological and psycho-cognitive explanations provided useful information on understanding the research topic. The relevance and outdatedness of the social model of disability have been questioned (Oliver, 2013; Edmonds, 2021). Nevertheless, the model can provide some explanation as to why students with dyslexia may have different psycho-emotional experiences in mainstream secondary classrooms. Following this outline of the bio-psycho-social model, the next chapter considers CHAT as another model pertinent to this research.

Chapter 4

Using Activity Theory to understand the psycho-emotional experiences of students with dyslexia in a mainstream secondary classroom

4 Using CHAT to understand the psycho-emotional experiences of students with dyslexia in a mainstream secondary classroom.

4.1 Diversity and dyslexia within a cultural context

Awareness of diversity is growing and constantly being influenced by one's socio-cultural background. As the world becomes more interconnected, people from different cultures are increasingly coming into contact with each other (Roth, 2007; Burkitt, 2019). This can lead to a greater understanding and appreciation of different perspectives, but there can also be challenges (Roth, 2007; Burkitt, 2019). Sharma (2017) defines diversity as appraising what each individual brings to the work environment, which lead to more productive, creative, and valuable environments. In every classroom, there are at least one to five students with dyslexia (Washburn, Binks-Cantrell & Joshi, 2014; Reid, 2019). Therefore, every teacher should be equipped to teach all students (GEMR, 2020). Dyslexia and diversity can be best understood through a cultural lens (Hoyles & Hoyles, 2010). According to Vygotsky's perspective of culture people are never as independent and unaffected by other forces as they might initially seem. Rather, individual brain functioning is intrinsically social or socio-cultural in that it integrates socially evolved and socially structured cultural resources, even when it is performed by a person working alone. Dyslexia may be evident in many cultures (Hoyles & Hoyles, 2010; Maunsell, 2020). Thus, the psycho-emotional well-being of students with dyslexia can be understood in relation to cultural tools that guide their interactions within various kinds of social contexts, including mainstream secondary schools. The manifestation, conceptualisation and understanding of dyslexia, however, may vary based on mediation tools such as language, diagnostic measures, socio-economic structures,

and policies (Paulesu *et al.*, 2001; McBride, 2019; Maunsell, 2020). Matsumoto (1996) defines culture as the shared yet unique set of views and actions that are passed down from one generation to the next among a group of people. From a cultural-historical perspective, culture is more than just values and beliefs, as it can also involve practical, social, or organised activities (Burkitt, 2019). That is, human interaction and social life give rise to culture (Vygotsky, 1981). Therefore, cultural beliefs related to students with dyslexia can vary over time (Sami, 2004). New emotions or emotional states evolve as society develops historically and culturally (Elias, 1990; Mesquita, 2012; Sánchez, 2014). Notably, these changes may impact the psychological processes and behaviour of students with dyslexia, namely, displayed emotions and the construction of, or response to, learning differences (Lonner, Keith & Matsumoto, 2019; Mesquita & Frijda, 1992). Culture may negatively influence the experiences of students with dyslexia and their identity formation, so its effects should be carefully considered in inclusive classrooms. According to O'Brien (2020), "cultural and structural biases, which focus on children's difficulties rather than differences, may result in 'othering' young people, causing a reduction in self-esteem and self-worth" (p. 2).

Berryman *et al.* (2015) suggest that environments like schools should be culturally open, enabling students to develop a sense of belonging and identity. This approach recognises that the emotions of students with dyslexia can be based on social learning and interaction (Mesquita, 2012). For example, in Jamaica some caregivers and teachers view dyslexia as a weakness and stigmatise students with dyslexia (Jamaica Observer, 2019). Despite the use of negative connotations, labels can benefit students with dyslexia from diverse cultures, as they can serve as a mediator between the person and their cultural environment, providing an explanation

for any challenges they may face, and helping to prevent unwarranted or harmful beliefs (Riddick, 2001). The socio-cultural approach suggests that labels are shared conceptual tools exchanged in social encounters in cultural contexts, whereas the bio-psycho-social model argues that labels come from individual biological and psychological variation within the social environment. This approach recognises how these three systems overlap and interact to impact on individual well-being.

4.2 Rationale for using Activity Theory (CHAT)

Activity Theory can be defined as a naturalistic-focused psychological and interdisciplinary theory that provides a framework for characterising behaviour and perspectives on practice, which focuses on the connection between the individual and society (Barab *et al.*, 2004). This theory is useful when developing an understanding of dyslexia because of the need to move beyond individuals to consider how their individual characteristics affect their involvement in social and physical activities. According to Rogoff, Moore *et al.* (1995), researchers cannot simply examine individual thought as if it existed in space, ignoring the various activities people engage in and the groups they are part of. Social and cultural interactions construct behaviour and create learning (Russell, 2012). According to Wertsch and Tulviste (1992), an understanding of individuals' psycho-emotional experiences can come from recognising the role of various aspects of the activity setting in which they are required to operate. Thus, to understand the psycho-emotional experiences of students with dyslexia, we can conceptualise mainstream secondary classrooms as an activity system.

The CHAT framework encourages teachers to understand how socio-cultural tools are used, the dynamics at play and the benefits of self-reflection (Russell, 2012).

Teachers may ask themselves how they can improve their learning environment by altering their teaching tools to create a more inclusive environment for education to take place (Russell, 2012). Activity theory can help create interventions based on knowledge of human functioning and experiences through a socio-cultural lens and provides a comprehensive method to appreciate learning (Edwards, 2011; Sannino & Engeström, 2018).

CHAT is also a suitable methodology for understanding students with dyslexia actions and experiences in a multi voiced system such as a mainstream secondary classroom (Feldman & Weiss, 2010). Multiple perspectives or voices viewing the object can come from subjects' own personal sense (Sannino & Engeström, 2018). Another benefit of using CHAT is that it provides an understanding of how change is facilitated, by including more inclusive learning practices, in a complex open activity system (Lauchlan & Boyle, 2007; Cliff *et al.*, 2020). CHAT is now more widely used in educational settings and research, which helps create knowledge to support students with dyslexia (Cole *et al.*, 2018). CHAT is also aligned with my ontological and epistemological viewpoint. This approach is suitable for case studies because the participants are drawn from the same group of people who have a common objective and motive and use similar tools for learning in a mainstream classroom. The current research looked at the shared activities and actions related to inclusive learning practices within mainstream secondary classrooms, the key activity system.

4.3 Unit of analysis

Vygotsky's basic mediational triangle posits that individuals can examine their interactions as an activity system whenever they involve using tools across time to accomplish a common goal on an object (Russell, 2012). For the purposes of this

study, mainstream secondary classrooms will be considered as activity systems with their own teaching tools and learning activities. Dyslexic students take part in the activity within the classroom alongside their peers, but at the individual level their psycho-emotional interactions or experiences will differ, and this dialectic between individual experience and joint activity will help shape their identity. Such psycho-emotional experiences may have an impact on students' motivation and academic goals – and therefore on their alignment with the overall purpose of the activity system.

In the first generation of CHAT, the key unit of analysis is culturally mediated action (Sannino & Engeström, 2018). In the third generation of CHAT more than one activity system can have a relationship with a shared object (Sannino & Engeström, 2018; Larsen *et al.*, 2019). The current research, however, focused on the key unit of analysis from the second generation of CHAT, which is activity (Edwards, 2011; Sannino & Engeström, 2018). Activities take place within an activity system, which is a unit of analysis that considers both the influence of the larger social system in which agents work and the active, participatory role that individuals play in it (Havnes, 2010). Activities represent anything people do collectively and form part of the activity systems. Activities consider the role of culture and social factors in human daily activities (Nunez, 2009; Foot, 2014).

Activities are made up of actions that engage students with dyslexia to help them learn in a mainstream secondary classroom, with the purpose of attaining shared motives (Nunez, 2009). Additionally, activities give meaning to students' actions and are based on their own socio-cultural background (Havnes, 2010). Leontiev's line of argument focused on the social-cultural individual, not the inner person in identity

formation, which makes it stand out from Vygotsky's stance (Kazulin, 2002). The purpose of action is to achieve individual goals but sometimes it is unclear what is required (Nunez, 2009; Havnes, 2010). For action to take place, there must be consensus on the activity (Roth, 2007). According to Nussbaumer (2012), the way students learn and the actions they take in the learning process can be analysed as a unit of study in CHAT.

4.4 Elements of CHAT

4.4.1 Subject

The subject node represents the perspective(s) from which the system is seen. The subject is the person or people who will participate in the activity system (Trust, 2017; Sannino & Engeström, 2018). In this research, students with dyslexia and educators form part of mainstream secondary classrooms; however, perceptions of the object may differ between subjects (Foot, 2014). Subjects' perspectives are based on their personal and socio-cultural experiences and involvements with other components of their activity system (Foot, 2014; Trust, 2017; Van der Walt & Wolhuter, 2018). The teacher is expected to be the more knowledgeable other who is equipped to teach and better understand the learning material than students with dyslexia. (Mariage *et al.*, 2000). However, in an inclusive learning environment, the focus shifts from teacher-centred to student-centred teaching and more peer-to-peer learning is encouraged (Elen, 2007; Russell, 2012; Onurkan & Özer, 2017).

4.4.2 Community, division of labour and rules

The community, division of labour and rules play a key role in goal-directed actions, leading to an outcome (Nussbaumer, 2012; Postholm, 2015; Foot, 2014). The

mainstream secondary classroom is the unit of analysis, while the rest of the school forms an important part of the community. Members of the community are likely to share an interest in the activity of the classroom (Van der Walt & Wolhuter, 2018; Andrews, Walton & Osman, 2019). Although the school can be viewed as another activity system, the focus of this thesis is on the classroom as an activity system because it is the proximal relationships (between students with dyslexia & educators) that the literature suggests have the most important effects on students with dyslexia psycho-emotional experiences.

Individuals within the community are bounded together by rules, values, and division of labour (Nunez, 2009). Interpersonal interactions, attitudes, and beliefs that characterise a school's culture—both explicit and implicit—have been linked to students' social and mental development (GEMR, 2020). These may help us understand the psycho-emotional experiences of students with dyslexia in mainstream secondary classrooms. For example, school league tables for secondary schools provide statistics detailing pupils' performance in GCSEs/O-levels (and equivalent exams) at age 15–16 and GCSEs/A-levels (and equivalents) at age 17–18, including English and Maths. Several changes to secondary school Performance Tables implemented by the Conservative-Liberal Democrat Coalition Government have altered how school values shape activity (subject choice) (Parameshwaran & Thomson, 2015).

As it relates to the division of labour, the activity system recognises that people have distinct roles, which contributes to each having their own perspectives (Engestrom, 1999). Everyone in the activity system is working towards specific goals that support the collaborative activity. No one has the expertise to accomplish every

action in the activity system (Tolman, 1999; Van der Walt & Wolhuter, 2018).

Russell (2012) suggests teachers should understand the social and cultural situation of students with dyslexia, as well as their values, as this can have an effect on the activity system and impact their learning. Learning is dynamic, as people engage in group activity over time; it affects the activity system and people learn how to behave in these in group settings (Russell, 2012). Rules form and constrain the interaction of people, whether formal or informal, implicit, or explicit (Sannino & Engeström, 2018). They are based on the standards and agreements of the activity system (Postholm, 2015). Therefore, values are likely to influence students with dyslexia behaviour and interactions within mainstream secondary classrooms.

4.4.3 Object

Activity systems are composed of the object of the activity and the outcome the system is intended to achieve (Havnes, 2010). This can either be physical or an ideal (Postholm & Vennebo, 2019). The object is the problem area or target at which the activity is directed (Trust, 2017; Sannino & Engeström, 2018). Objects are transformed into outcomes using instruments, i.e., tools and signs (Sannino & Engeström, 2018). The object which guides the activity of education in a mainstream secondary classroom may be different among students with dyslexia and educators (Foot, 2014). Therefore, the aim of a collective activity system is its continuously repeated purpose, which serves both as a motivator and as a boundary for potential activities and targets (Daniels, 2004).

To understand the activity, it is necessary to understand the object, which is the true motive for the joint activity (Sannino & Engeström, 2018; Andrews, Walton & Osman, 2019; Postholm & Vennebo, 2019). This understanding can prompt efforts

to understand students with dyslexia viewpoints in relation to the object and learning and how it may affect their psycho-emotional experiences in a mainstream secondary classroom (Edwards, 2007). The characteristics and direction of the activity system derive from the object, thereby allowing for the possibility of action within the activity (Postholm & Vennebo, 2019). Objects come to the fore to meet a need or motive (Engeström, 2000; Trust, 2017). Learning is driven by a need and an object become linked, the need begins to be consciously recognised, and this is when a motive for change emerges (Foot, 2014).

Additionally, students with dyslexia self-identity and problems within the object can have an impact on their actions, especially in engaging or avoiding certain learning activities that cause unpleasant emotional experiences (Łodygowska, Chęć & Samochowiec, 2017). Recognising the role of motives can help to understand how students with dyslexia participate in an activity system (Edwards, Flear & Bøttcher, 2019). According to Burkitt (2019), people's social relationships and activities are shaped by the motives they have for certain actions. Motives are specific and distinct for each activity (Stetsenko & Arieivitch, 2004). Like all students, those with dyslexia are likely to be inspired by something that has a factual basis in the world (Stetsenko & Arieivitch, 2004). Therefore, it is important to understand the motives of not only students with dyslexia but also their teachers, as well as how this may affect their interactions within a mainstream secondary classroom. Dyslexic students' motives, understanding, construction of their psycho-emotional experiences and attitude to learning can come from many factors, such as their past. (Roth *et al.*, 2012; Andrews, Walton & Osman, 2019). Subjectivity, collective learning environment, and their

socio-cultural background can lead to contradictions (Sannino, 2008). This will be discussed later in this chapter.

Alongside the object, short-lived goal-focused actions can be important, and understanding the connection between the goal of an action and the object of an activity may help us understand the interactions of students with dyslexia and how it may affect their psycho-emotional experiences in a mainstream secondary classroom (Engestrom, 2000; Roth, 2007; Foot, 2014; Postholm, 2015). Individuals have goals that are primarily conscious, short-lived, and finite in nature (Daniels, 2004). Everyone engages in goal-directed actions to meet some need (Postholm & Vennebo, 2019). Subsequently, these are pooled to help meet a shared object (Sannino & Engeström, 2018). It is expected that student learning and improvement of their understanding are two of the major goals of educational institutions (Postholm, 2015). Educational institutions may be motivated to convert goals into outcomes (Engeström, 1987; Trust, 2017). Students, however, can choose to prioritise and participate in activities in a mainstream secondary classroom. They can also shift from motives to goals and vice versa, as they feed into each other (Stetsenko & Arieivitch, 2004). For example, students with dyslexia can decide which tasks they want to engage in based on their ability to complete or succeed in the task (Roth, 2007; Stetsenko & Arieivitch, 2004).

4.4.4 Tools

Activity Theory claims that a person's consciousness and mind are the result of their joint activity with shared tools and their social interaction with each other (Engestrom, 2001; Russell, 2012). Outcomes and attaining an object are determined by tools that people consciously choose to use (Trust, 2017; Hancock & Miller, 2018).

People can learn and communicate through cultural tools, and learning occurs through their complex relationships with others facilitated by these tools (Foot, 2014). Various cultural tools aid students with dyslexia education, which can be learnt by observing, listening, and becoming involved in group activity (Russell, 2002). These tools can be primarily external, for example material such as modern technologies, and secondarily internal, for example psychological tools such as language (Russell, 2012; Postholm, 2015; Trust, 2017). Primary tools help change the condition, while the secondary tools help change behaviour (Nunez, 2009). These tools, however, can change depending on the societal or cultural context in which they are adopted (Foot, 2014). In an inclusive environment, students with dyslexia would have the choice of which tools to use, which is likely to produce positive psycho-emotional experiences and have a positive learning outcome (Foot, 2014). Teachers' opinions and practices regarding group/pair work as a tool may also shape students' outcomes (Thamarana, 2015). Tools may define how students with dyslexia carry out actions in the activity system (Kaptelinin, Kuuti & Bannon, 1995).

4.4.5 Contradictions

An activity system always has contradictions, and these can form over time (Engeström & Miettinen, 1999; Van der Walt & Wolhuter, 2018; Larsen *et al.*, 2019). However, there is no clear definition for the terms contradictions and tensions (Karanasios, Riisla & Simeonova, 2017). The present research is of the view that contradictions are structural tensions that have historically developed within systems (Engeström, 2001). In multi-voiced systems like classrooms, contradictions can arise from changes in how the object is interpreted (Edwards, 2007). A scenario based on scholarly literature is highlighted below to explore this point. A secondary

mainstream classroom adopts a modern technology, the use of tablets, with the aim of improving learning, especially for students with dyslexia as part of a classroom educational project. The introduction of this instrument creates economic tension. This contradiction is manifested in that students no longer focus on the teacher delivering the lesson but are distracted by unrelated applications on the tablet, thereby, reducing focus and participation in the lesson. The teacher then voices her concerns both to the students and head teacher to seek to resolve the contradiction, instead of ignoring it, which could have adversely affected the activity system and cause it to become unstable. Consciously acknowledging the contradiction can lead to change within the activity system) (Roth & Lee, 2007). In this scenario, the new tool became a source of contradiction between classroom activities and norms (values) recognised within the school's established objectives as an activity system (Lamas & Lalueza, 2016). This could lead to a contradiction between the school (community) and the division of labour (the teacher) (Riisla & Simeonova, 2017). The teacher can use these contradictions in the classroom to act, by being innovative or deviating from established rules or norms to create positive transformation in this activity system. The teacher also could include new solutions to keep the learner focused on the lesson and ensure proper management of the tablet. Reproduction of additional useful solutions from other activity systems could also be beneficial (Bonneau, 2013). Addressing such contradictions is important for transformation of the activity system (Engeström, 1987; Nunez, 2009).

Karanasios, Riisla and Simeonova (2017) suggest that in the literature, contradictions and tensions are synonymous, so can simply be called contradictions. However, the terms are not interchangeable within the current study. Tensions are

seen as manifestations of the contradictions. These contradictions and tensions are not viewed as a weakness or flaw in the activity system, but as seen above in the scenario, they can be found in all communal activity, as they create the space for innovations and new ways of looking at the activity (Bonneau, 2013; Foot, 2014). Moreover, it is the surfacing of and responding to contradictions that drives learning at the level of the system (Bonneau, 2013; Foot, 2014). One important feature of contradictions is that their identification can yield insights into how an activity might be changed or developed (Karanasios, Riisla & Simeonova, 2017). Therefore, recognising contradictions in the system can help create a more inclusive classroom.

When exploring contradictions, CHAT recognises the role of expansive learning that is the discovery of something that does not yet exist and how it changes from a personal to a shared activity system, leading to the creation of an innovative configuration of activity focused on the object (Engeström & Glăveanu, 2012; Sannino & Engeström, 2018). Expansive learning helps to resolve contradictions manifested as tensions that can lead to positive outcomes (Larsen *et al.*, 2019). This is represented as a cycle in Figure 1.

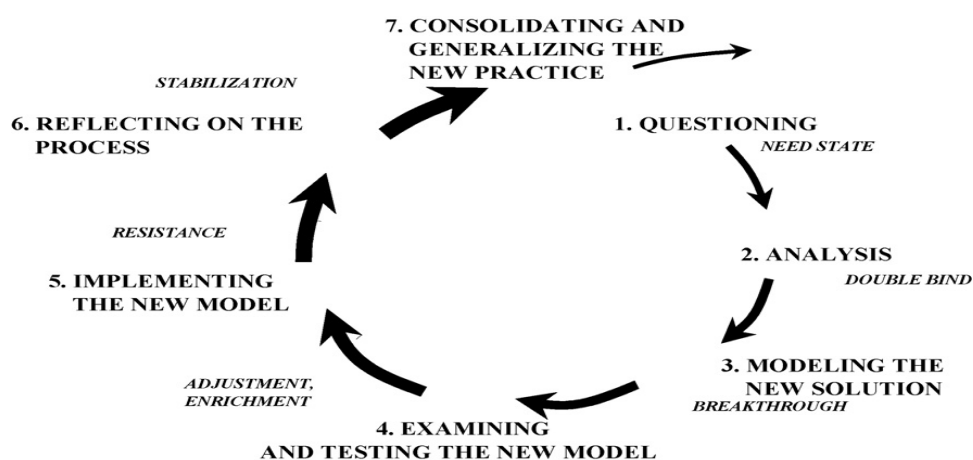


Figure 1 The cycle of expansive learning (Engestrom, 2001)

Hancock and Miller (2018) cite Engestrom and Sannino (2010), who provide an example of such learning. Students are never seen as the source of conflict in an inclusive learning environment; rather, it is the practices themselves which manifest contradictions in inclusive learning practices (Bonneau, 2013).

4.5 Subject and the role of identity

The subjects in this research are educators and students with dyslexia who have their individual sense of identity, which is how they understand themselves (Holland *et al.*, 2001; Holland & Lachicotte, 2007). This understanding can shape their beliefs and perspectives about dyslexia. Identity contributes to higher mental functioning. Holland and Lachicotte (2007) maintain that as a higher-order psychological function, identities are a relatively ordered intricate recollections, emotions, experiences, and beliefs that an individual may access over time and use as a reason for their behaviour. Higher psychological functions are said to first be externalised between people then internalised:

For us to speak about the external process means to speak of the social. Any higher psychological function was external. This means that it was social before becoming a function; it was a social relation between two people. The means of acting upon oneself is originally a means of acting on others and the action of others on one's personality. (Vygotsky, 1989, p. 56)

Regardless of the process of attaining higher psychological functions, each person is unique; no two people think the same, and despite undergoing the same situation their process or experiences may be different (Holland & Lave, 2009). Subjects may ground their understanding in their past, which helps shape their present life (Holland & Lave, 2009). In other words, history, culture, and community are likely to play a role in how subjects construct their sense of self (Holland *et al.*, 2001; Stetsenko & Arieviditch, 2004).

A subject's sense of self is also rooted in their social framework (Stetsenko & Arieviditch, 2004). For students with dyslexia, their social framework may include their family background, classroom and/or school environment, which can have an impact on their psycho-emotional well-being and identity. Similarly, teachers' individual experiences, attitude and beliefs may also be influenced by their socio-cultural background. Educators social frameworks may help develop who they are and give meaning to their interactions with dyslexic students in a mainstream secondary classroom. Educators may also develop pedagogic strategies from contentious local practices, which may be driven by differences and tensions that can affect how they operate in the learning environment (Holland & Lave, 2009). The local practices of teachers may not only be constructed by their interactions with students but also by their interactions and experiences with the school's culture and the political climate over time, which influences how they teach students with dyslexia (Holland & Lave, 2009). Since identities are experienced through activity, they may be conceptualised as they emerge as part of one's shared practice (Holland *et al.*, 2001). Both teachers and students with dyslexia engage with people and activity systems using similar cultural tools and social practices, over time from past to present (Holland & Lave, 2009). Subjects then begin to form their own practice, using cultural materials to create their identity. From a social constructivist perspective, identities can be socially constructed through influential means and objects, for example, through EHCPs and diagnostic assessments that label students with dyslexia (Holland *et al.*, 2001).

Hollenweger (2013) suggests that identifying one's learning differences is the first and most crucial step in overcoming challenges related to being dyslexic. Interactions with significant others and membership in a group may contribute to

dyslexic students' sense of self (Stetsenko & Arievitch, 2004). A scenario based on scholarly literature will be used to highlight this point. Tom, a primary school student, is about to transition to secondary school and is aware that he is dyslexic. Tom has been learning from primary school how to use words to communicate and manage his feelings so he can practice age-appropriate self-control and self-management strategies (Holland & Lachicotte, 2007). According to Vygotsky, the resources for self-management of thought and emotions are more important than community and culture when constructing meaning and mediating tools (Holland *et al.*, 2001).

Now that Tom has transitioned to secondary school, he realises that there are students with learning differences, some with strong identities. Being dyslexic, he feels like he is losing some of his self-control due to educational and social challenges. Tom decides to talk and engage more frequently with other dyslexic students and teachers. This increased interaction helps Tom communicate with his teachers, but it also helps him understand who he is in relation to other students (Holland *et al.*, 2001). In other words, he is aware of himself only to the extent that he is aware of other subjects around him (Vygotsky, 1982; Holland & Lachicotte, 2007). Tom begins to use words and gestures used by other students to apply to himself and he tries to control his actions and make changes as he is motivated to get good results (Holland & Lachicotte, 2007). For example, Tom changed where he sat in his classroom and actively engages in group assignments with his teacher. It is expected that Tom's identity and actions may become reflective of his participation in the activity system (Kitchell *et al.* (2000) cited in Holland and Lave (2009).

As Tom grows older and advances in his secondary school education, he frequently uses self-reflection to determine who he truly is by observing and assessing

his behaviour (Holland *et al.*, 2001). Tom considers his past while simultaneously acknowledging his present (Holland *et al.*, 2001). He also reflects on the mediational devices used by his teachers when teaching and if it has any impact on his learning. Tom believes his dyslexic identity has an impact on his actions, views, and experiences (Holland *et al.*, 2001; Holland & Lachicotte, 2007). By year 11, Tom is now using his keen sense of self and clear self-direction to help him achieve his goal of increasing inclusion practices through advocacy for other students with dyslexia in his school. His internal motivation or drive comes from caring about other students with dyslexia in his school community and uses task-based coping strategies, which consists of factors such as determination (Alexander-Passe, 2006). Evidenced above, both collective and personal factors influenced Tom's sense of self within that activity system (Jussim & Ashmore, 1997). Nevertheless, social practices which use voice and speech could continue, increase, or end in that activity system (Stetsenko & Arievidtch, 2004).

4.6 Chapter summary

Culture is replete with some rigid assumptions about social norms and preconceived notions about how individuals should see and act in the world (Gonzalez, Moll & Amanti, 2005). This can affect interactions between teachers and students with dyslexia within the systems in which they are operating. The context of students with dyslexia can have an impact on their identity, experiences, and interactions (Roth *et al.*, 2012). Inclusive practices may vary based on cultural differences in understandings of dyslexia, which in turn, can affect the experiences of students with dyslexia in a mainstream secondary classroom. The current research shows the interactions between students with dyslexia cognition and their

experiences, and it suggests that socio-cultural approach can provide an understanding of how social interactions and social processes play a significant role in creating knowledge (Shepard, 2000). In addition to this, diversity and dyslexia within a cultural context can be understood within activity theory, specifically CHAT.

Complex networks of socio-cultural elements make up activity systems, with mediational structures that shape the collective actions of individuals driven to reach some objective (Trust, 2017). The primary unit of analysis are activities that can affect actions, while the key activity system is a mainstream secondary classroom. The six elements of CHAT are important in the analysis and discussion of the research findings. The nodes object, tool/artefact, subject, community, division of labour and rules helped frame the overarching themes found in the data to provide an understanding as to why educators and students with dyslexia may have different or shifting perspectives related to inclusive practices (Patchen & Smithenry, 2014; Postholm, 2015).

The role of contradictions is another important concept from CHAT that is relevant to this research. In the activity system, contradictions are not considered a weakness, but they instead create spaces for innovation and new ways of looking at activities (Bonneau, 2013; Foot, 2014). Additionally, students with dyslexia may be affected by their own beliefs about dyslexia, as well as the attitudes and perspectives of the teacher about this learning difference (Holland *et al.*, 2001; Holland & Lachicotte, 2007). The next section builds on the previous chapters by looking at current and changing practices supporting students with dyslexia.

Chapter 5

Current and changing practices supporting students with dyslexia

5 Current and changing practices supporting students with dyslexia

5.1 Introduction

The academic literature on current and changing practices to support students with SEND indicates the emergence of different teaching practices in mainstream secondary classrooms. Deighton *et al.* (2020) issued a report as part of the Evidence-Based Practice Unit and the Anna Freud National Centre for Children and Families on behalf of the Children and Families Policy Research Unit (CPRU), which suggests that from as early as primary school, students with dyslexia may face issues related to their psycho-emotional well-being. Therefore, Muin (2020) suggests that teachers should possess the expertise, training, and competency to understand students with risk factors for dyslexia and that there is considerable scope for improvement. Reid (2019) suggests that as more teachers seek to create inclusive learning environments where students with dyslexia differences, rather than their deficits, are recognised, positive experiences are increasingly likely (DfE, 2015). Change can occur at both an individual and activity systems level. According to Rix (2021):

In seeking to explore or confront difficulties, challenges, and opportunities, we should try to critically engage and reflect on the situation. This involves thinking in hypothetical ways, seeing the dilemmas, which surround us or seeking pragmatic, proactive, reactive, or radical pathways. We should recognise the difficulties within a system as an experience for all involved (p. 14).

Change occurs as systems evolve, and adaptation takes form and reshapes the system. While these changes take place within the system, contradictions manifested as tensions may occur. Some changes can be conceptualised as dilemmas of difference (Norwich, 2009). This change can be explored through CHAT (Sannino & Engeström, 2018). CHAT provides an understanding of how change and

improvements are facilitated by exploring inclusive learning practices in a complex activity system (Lauchlan & Boyle, 2007; Cliff *et al.*, 2020). As a result of the surfacing of these tensions, others in the system can be more aware of them and drive change. Hence, the system can develop as a result of expansive learning (Sannino & Engeström, 2018).

Adopting a CHAT perspective means viewing a mainstream secondary classroom as an activity system that changes over time within a socio-cultural context (Engeström, 1999; Bonneau, 2013). One kind of change that is occurring in mainstream classrooms is the move towards greater inclusion and greater consideration of, for example, dyslexia- and learner-friendly practices. The term dyslexia friendly classroom was coined by Neil Mackay, a professional trainer and consultant in inclusive education (Mortimore, Dupree & Dupree, 2008). According to Mackay (2008), a dyslexia friendly classroom forms a part of a dyslexia friendly school and is effective, proactive, empowering, and inclusive. Similarly, Riddick (2006) maintains that a dyslexia friendly classroom creates a respectful inclusive learning environment for all students.

Mainstream inclusive classrooms have been widely regarded as the best learning environments for students with special educational needs and disabilities (SEND), including students with dyslexia (UNESCO, 1994). Booth and Ainscow (2002) suggest that creating inclusive cultures, developing inclusive policies, and implementing inclusive practices are essential for the development of inclusion in schools, which ultimately benefits all students. Inclusive classrooms enable students with dyslexia to feel competent and confident in exercising their strengths, and not limited by their learning differences which can impact their self-esteem and sense of worth (McLean & Price, 2011; Reid, 2019). In inclusive settings such as a dyslexia-

and learner-friendly classroom, students with dyslexia can actively participate as valued members in their classroom without negatively affecting the learning outcomes of peers without learning differences (Farrell, 2000; Kalambouka *et al.*, 2007).

Dyslexic students have a fundamental right to learn alongside other learners (Mitchell & Sutherland, 2020). Such interaction and inclusion can have positive benefits for both students with dyslexia and the general classroom population (Booth & Ainscow, 2002; Hunt, 2011; de Graaf *et al.*, 2013; Hehir *et al.*, 2016).

Mortimore, Dupree, and Dupree (2008) suggest that in a dyslexia-and learner-friendly classroom, students with dyslexia may feel more appreciated, as collaborative learning is emphasised rather than competition. Florian (2013) claims that in highly individualised competitive education cultures, more value may be placed on high rankings in standardised achievement tests and school inspections than on collaborative learning. In contrast, in an inclusive classroom, both collaborative learning and the emotional aspect of students with dyslexia learning are considered. Pavey, Meehan and Davis (2013) claim that students may feel comfortable moving outside their comfort zone when given support without criticism and pressure. Past studies suggest that students are more likely to develop confidence and motivation towards academic achievement with this level of care (Westwood, 2007; Mortimore, Dupree & Dupree, 2008). Likewise, MacKay (2008) and Florian (2013) maintain that the likelihood of positive psycho-emotional experiences for students with dyslexia is increased in an inclusive classroom where the focus is on students with dyslexia capabilities. Furthermore, students may have more positive psycho-emotional experiences, becoming increasingly involved and motivated in their learning (Tur-Porcar, Llorca-Mestre & Mestre-Escrivá, 2021).

The value placed on inclusive education is growing (Hancock & Miller, 2018; Kefallinou, Symeonidou & Meijer, 2020). The European Agency for Special Needs and Inclusive Education (EASNIE, 2019a) has commissioned ongoing research on inclusion. In addition, the European Commissioner for Human Rights (2017) highlights the importance of inclusive education, which is a strategy that reduces exclusion from and within education by increasing involvement in educational institutions, societies, and cultures, that caters to the diversity of requirements of all persons (Council of Europe Commissioner for Human Rights, 2017). Ainscow (2000) claims that inclusive education involves positive steps designed to respond to all learners. Similarly, studies suggest that inclusive education positively contributes to social inclusion (MacArthur, 2013; Woodgate *et al.*, 2020; United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2020).

Inclusive education is a complicated issue (Hardy & Woodcock, 2015; Shyman, 2015). Nevertheless, various policies, interventions and schools recognise inclusive education as a basic human right to be provided in mainstream schools (Armstrong, Armstrong & Barton, 2016; Haug, 2017). All children have a fundamental right to a quality education and the fulfilment of their specific needs (Farrell, 2000). However, no nation has successfully implemented all such legislation, statutory guidelines, international frameworks, and policies in their education system (Haug, 2017; Namanyane & Shaoan, 2018). Global inclusive education policy is not reflected at the local school level (Slee, 2018). However, countries such as the UK, institutions within the government have been established to address this issue (DfE, 2020). Local or international frameworks cannot guarantee that students with dyslexia psycho-emotional needs will be met; however, scholarly research can provide a useful starting or discussion point in helping to create inclusive classrooms that consider

students' mental well-being. The core premise of inclusive education is that all students, regardless of their differences, are not ostracised or excluded within or beyond school but have equal opportunity to participate in the education system (Kodirov, 2020; Bhal, 2020; Disale, 2021). Recent evidence suggests that in some mainstream secondary classrooms, there are efforts to recognise the strengths and capabilities of all learners (Anastasiou, Kauffman & Di Nuovo, 2015). Learning is customised and does not force students to fit into a particular educational setting (Ydo, 2020).

In the UK, support for students with dyslexia is promoted in the SEND Code of Practice (DfE & Department of Health [DoH], 2015). The code provides guidance on how to fulfil legal obligations to identify, evaluate, and accommodate students with special education needs. This guide, along with policies, requires that teachers in mainstream classrooms meet the needs of all students within the learning environment (Reid, 2016). According to Miles and Singal (2010), promoting more inclusive educational practices at country level will depend on a clear understanding of inclusive education in the cultural contexts in which it is being practised. Haug (2017) suggests that while countries can learn about inclusive education approaches, they should avoid uncritically adopting another country's inclusive practices in their own school system as this risks a poorer education system. Moreover, inclusive education may be considered as a priority in one country while in another it is not reflected in policy (Hardy & Woodcock, 2015). Inclusive policies do not ensure inclusive practices and vice versa (Hang, 2010). Below, the role of educators in assisting students with dyslexia is explored in the context of barriers to an inclusive classroom, dyslexia awareness initiatives, teacher training, and support for vulnerable students

during the Coronavirus disease (COVID-19) pandemic and for students with/without SEND transitioning from primary to secondary school.

5.2 Role of an inclusive teacher

An inclusive teacher is likely to create positive experiences for students with dyslexia. For example, the teacher's opinion about students passing exams is suggested to be a predictive factor in students with dyslexia accessing higher education (Cerdeira *et al.*, 2018). Similarly, Ibrahim and El Zaatari's (2020) empirical study suggests that if a teacher demonstrates a positive disposition toward the pupil, distributes authority, and grants reciprocity, the student will undergo development. In some mainstream secondary classroom, teacher-led questioning is built into the classroom as an important mediating strategy within the activity system. Teachers are expected to engage in whole class teaching; some find ways around this to help students with SEND (e.g., by pre-teaching them or offering catch up lessons). According to Smith *et.al.* (2004), one active teaching approach that is believed to promote excellent communication and discussion between teachers and students is interactive full class instruction. Students are required to participate actively in class discussions by asking questions, offering ideas, and elaborating on and illustrating their points of view. This approach is thought to be effective because it allows students to engage with the material in a meaningful way, and it gives them the opportunity to practice their communication skills. Since it does not rely on reading or writing, it will not disadvantage students with dyslexia.

An inclusive teacher recognises that each student with dyslexia is unique: "a condition like dyslexia varies in the way that it impacts students because of the diverse intellectual strengths they are able to deploy to compensate for and work

around their challenges” (Redford, 2017, p.66). This type of teacher may recognise students with dyslexia who show strengths in creative areas such as music, dance, and drama and have strengths and weaknesses in other areas (Chakravarty, 2009; Wennås Brante, 2013; Šimčíková, 2018; Reid & Guise, 2019). For example, an inclusive teacher may identify students with dyslexia who have excellent creative and visual capabilities, but their oral communication skills may be not as strong and vice versa (Peer & Reid, 2001; Rooke, 2017). They can also appreciate similarities within this group. For example, some visible patterns and similarities include the way students with dyslexia use their cognitive capacities, their intuitiveness, the utilisation of their senses and their inquisitiveness and thoughtfulness (Davis & Braun, 2011).

Mortimore, Dupree, and Dupree (2008) suggest that manifestations of learning challenges in students with dyslexia can be visible in their conduct, retention, logistics, reading, mathematical and learning abilities. A qualitative study by Worthy *et al.* (2016), exploring perspectives on and understandings and experiences of dyslexia among 32 Texas public school teachers, suggests teachers may feel compelled to support students with dyslexia. This is not the case for all teachers. Reid (2019) claims that some teachers may experience anxiety around recognising and handling students’ learning differences.

Positive relationships with students are suggested to be strongest predictors of teachers’ happiness but this needs further investigation (Hagenauer, Hascher & Volet 2015). Pavey, Meehan and Davis (2013) encourage teachers to acquire the knowledge, understanding and personal qualities to promote positive psycho-emotional experiences for students with dyslexia in mainstream secondary classrooms. Similarly, Hansen (2012) maintains that teachers’ construction of what constitutes a learning difference, as well as their professional self-concept/efficacy,

may influence their choice of suitable pedagogic practices in a mainstream secondary classroom. Teachers may assist students with dyslexia to develop a positive self-image and higher self-esteem thus enhancing their psycho-emotional experiences (Humphrey, 2003; Lindeblad *et al.*, 2016). Positive identity formation can be achieved if a teacher believes that students with dyslexia can achieve academically and verbalises these expectations clearly, while providing constructive feedback on work content not appearance (Riddick, Wolfe, & Lumsdon, 2012). Some argue that teachers' personal characteristics can help to create positive psycho-emotional experiences for students with dyslexia, including genuineness, and being non-confrontational, reliable, helpful, coherent, to the point, easy-going, competent, supportive, thoughtful, and ready to go over information when needed (Mortimore, Dupree & Dupree, 2008; Gosk, Kucharczyk & Kulesza, 2018). Burkitt (2019) maintains that student-teacher relationships can foster greater confidence and help students overcome panic and anxiety - especially when writing and sharing thoughts. The literature indicates that supportive relationships with inclusive teachers may positively influence students with dyslexia identity formation. However, In Twemlow and Fonagy's (2005) study, a questionnaire asked 214 teachers about their perceptions of teachers who bully students and their own actions. They define a bullying teacher as one who goes beyond what would be considered normal disciplinary measures in order to penalise, influence, or devalue a student. Students with dyslexia may also have negative experiences or feel less included in their classroom depending on how they perceive the relationship with their teacher. It is also suggested that teachers' biases and negative attitudes toward students with dyslexia may exist long before they instruct students (Lisle, 2011; Sowards, 2015; Stacey & Fowler, 2019). Furthermore,

teachers' biases, negative attitudes, and their own experience of being bullied as a student may contribute to them bullying students (Twemlow, 2006).

The use of humour by teachers to create an inclusive classroom and can also contribute to the shaping of students' identity. O'Connor (2013) suggests teachers use laughter to ease challenging conditions, but this is determined by the teachers' good decision-making skills in assessing how students may react. If pupils are likely to find the humour appropriate and helpful, it can be a great way to break the tension and make the situation more manageable. However, if pupils are likely to find the humour inappropriate or offensive, it may backfire and make the situation worse. Helenedoorn and Ruijsenaars (2000) interviewed 27 Dutch young adults with dyslexia (ages 20–39) about their experiences of coping with disability and life. They suggest participants had adverse experiences with laughter while learning. Therefore, understanding the limits of the use of laughter when building inclusive classrooms in the future could be an important aspect of teacher training.

5.3 Role of TAs in an inclusive classroom

Increasingly, much of the support for students with SEND, including dyslexia, is implemented via TAs (DfE, 2017). Deployment, practice, and preparedness are key aspects of TAs' roles in supporting students with learning differences (Brown & Devecchi, 2013). These are featured in the Wider Pedagogical Role (WPR) model – a guide developed for TAs (Webster *et al.*, 2011). While this model is informative, the selected factors are not the only drivers of the increased use of TAs in school; nevertheless, they were highlighted in the Deployment and Impact of Support Staff (DISS) project, which researched the TA role in the UK. Findings suggest that “pupils who received the most support from TAs had less engagement with a qualified

teacher and were found to make significantly less academic progress than similar pupils who received less TA support” (Webster, Blatchford & Russell, 2012, p. 78). Giangreco, Suter, and Doyle (2010) suggest to mitigate this possible negative outcome, time spent with the TAs should not reduce curriculum learning time with the classroom teacher.

Increased awareness of, and scholarly research on, the role of TAs has led to changes to policy and improved financial support to increase the number of TAs in primary and secondary mainstream schools (Brown & Devecchi, 2013; Rubie-Davies *et al.*, 2020). This change has been taking place both locally and internationally (Brown & Devecchi, 2013; Rubie-Davies *et al.*, 2020). Teaching assistants now engage in tasks that play a more significant role in the education of students with SEND (Brown & Devecchi, 2013; Rubie-Davies *et al.*, 2020). Such role developments and the increasing number of TAs in secondary schools raise the question of how their competencies may affect the general academic well-being of the students they support. Case studies conducted by Griffiths and Kelly (2018) and the Faculty of Education at Manchester Metropolitan University (MMU) in partnership with the BDA investigated the educational and personal competency of TAs in providing support to students in dyslexia friendly schools. Teaching assistants from two local authorities in North England who had completed a yearlong dyslexia training were selected, and it was found that “TAs in both LAs [Local Authorities] felt that their expectations had been met in terms of developing knowledge and understanding of learners with dyslexia and providing them with practical strategies and techniques” (Griffiths & Kelly, 2018, p. 348). Brown and Devecchi (2013) maintain that self-confidence, self-worth, self-esteem, sense of self-accomplishment and professional dyslexia training are likely to improve the practice of TAs. Teaching

assistants with a positive attitude and professional training can help create mainstream classrooms that promote positive psycho-emotional development and experiences of students with dyslexia (Alborz, 2009; Blatchford *et al.*, 2009).

As previously mentioned, some schools adopt a whole school approach when creating inclusive classrooms. However, the role of TAs may be seen as less significant when using teaching strategies to assist students with dyslexia due to different viewpoints on their role in a mainstream secondary classroom. According to Rubie-Davies *et al.* (2020), when the teacher and TA roles are compared, there is a general denial that TAs do indeed teach, therefore, little attention is paid to appropriate forms of TA pedagogical deployment. Further research is therefore needed on the role of TAs, especially in inclusive settings.

5.4 Benefits of an inclusive classroom and dyslexia and learner friendliness

The first step towards inclusion is understanding the differences among students (Booth & Ainscow, 2002). Inclusive teaching and learning strategies value these differences and build upon them without marginalising any students (Booth & Ainscow, 2002). The provision of inclusive education for all students still remains a challenge in most countries (Ainscow & Sandill, 2010; Bombardelli, 2020). Efforts are being made by mainstream secondary classrooms in the UK to create inclusive learning environments despite the barriers, which will be discussed in the next section (Florian & Linklater, 2010; Schuelka, 2018). The benefits of inclusive classrooms include an increase in academic achievement, social and emotional development, self-esteem, and peer acceptance (GEMR, 2020). These classrooms may also mitigate hate, prejudice, bias, and estrangement (GEMR, 2020). Inclusive classrooms seek to provide all students with suitable access to teaching interventions and strategies,

thereby achieving UNSDG4, equal opportunity and the right to education for all (Florian, 2007). Dyslexic students are less alienated from other students as they learn alongside their peers and separation is minimised for much of the day (Schuelka, 2018). Inclusive education provides conditions for optimising the growth of each student (Valentina, Mihić & Andreja, 2017).

An inclusive classroom does not imply a ‘one size fits all’ intervention approach, and the work done in recognising and addressing the problems of one student may be useful for other students whose challenges were not at first acknowledged (Booth & Ainscow 2002; Sharma, Forlin & Furlonger, 2015). Evans, Gable, and Habib (2021) suggest inclusivity depends on several factors, including how lessons are being taught, how often and the class size. There are also varying viewpoints regarding the use of targeted intervention in an inclusive classroom, as discussed in the section comparing poor readers and students with dyslexia (see Section 2.3; Efthymiou & Kington, 2017). Despite the lack of consensus, inclusive pedagogy can be a useful strategy to reduce negative experiences and improve education for all students (Florian, 2014; Florian & Beaton, 2018).

Florian and Beaton (2018) define inclusive pedagogical approach as a teaching response to disparities among students; unlike individually focused differentiation strategies, this approach does not lead to the marginalisation of students. There is no consensus among teachers that inclusive pedagogical designs promote practices that are suitable for all learners in an inclusive classroom (Florian & Black-Hawkins, 2010; Hansen, 2012). However, in Hagenauer, Hascher and Volet’s (2015) quantitative self-report survey of 132 secondary teachers, they suggest positive relationships with students are the strongest predictor of teachers’ happiness which may help to create an inclusive classroom.

Despite different perspectives on the benefits of inclusive education, the present research investigated how practices within a mainstream secondary classroom, might impact the psycho-emotional experiences of students with dyslexia. A dyslexia and learner friendly school is an example on an inclusive learning environment where practices can be incorporated into mainstream secondary classrooms to promote students with dyslexia positive psycho-emotional experiences. Three cases of dyslexia friendly schools can be found in Appendix L to illustrate this point.

5.5 Barriers in creating inclusive classrooms

The concept of inclusion education in schools lacks a universal definition and interpretations vary (Florian, 2014; De Beco, 2018; Ainscow, 2020; Boyle & Anderson, 2020). Kinsella (2020) suggests inclusive education may be conceptualised or defined differently within and between countries, and this could also affect the way in which educators interact with and support students with dyslexia, shaping their psycho-emotional experiences and identity formation. For example, achieving high grades in Modern Foreign Languages (MFLs) in mainstream secondary classrooms could be difficult for dyslexic students, therefore some educators might encourage or dissuade students with dyslexia from pursuing that subject as it could possibly impact their experiences (Graham, 2004; Nijakowska, 2010)., MFLs courses often require students to be able to read and write fluently in the target language as well as being able to speak and understand, which can be difficult for dyslexic students due to their difficulties with phonological processing and working memory (Johnston, 2019). Additionally, MFLs often involve a lot of rote memorisation, which can also be challenging for students with dyslexia (Tan, 2015).

Efforts to promote an inclusive classroom continues to be a struggle, when striving to achieve inclusive education; changes may be insufficient and slow paced, and numerous barriers may be encountered (Allen 2017, Haug, 2017). UNESCO (2016) recommends, to overcome this challenge, since the precise starting point for each country's system will differ, territories should assess their own situations, identify local barriers, and create a development plan appropriate to their circumstances. That is, countries should acknowledge their unique barriers and address them accordingly (GEMR 2020). According to Schuelka (2018), structural and organisational barriers include: shortcomings in legislation and legal assistance; resources and facilities; specialist personnel; teacher preparation; pedagogical strategies; adaptable curriculum; facilitative leadership; and societal views. Schuelka, Gibson and Kendall (2010) suggest another possible challenge. According to their research commissioned by the Higher Education Academy a lack of knowledge about the learner's specific condition may present as an obstacle to teaching. Other hurdles include school location, its organisation and enrolment process, socio-economic related issues, access to education and societal ridicule (International Bureau of Education-UNESCO, 2016; Sharma, 2017). Evans and Lunt (2002) also identify individual barriers that can affect inclusive learning, including the attitudes and beliefs of staff in schools. A lack of awareness of dyslexia may affect teachers' viewpoints (Nevill & Forsey, 2022). For example, unconditional or conditional praise alone does not create effective teaching or an inclusive environment; the process is more complex (Bigger, 2011; Sjoerdsma, 2018). Evans and Lunt (2002) also suggest that some teachers or staff may believe that the school's performance on challenging national examinations may suffer if there are students with learning challenges (Evans & Lunt, 2002). Some students' demands are too complex to be met by the

mainstream, hence some refuse to accept responsibility for SEND (Evans & Lunt, 2002).

Despite these barriers, inclusive education is continuously developing (Hansen, 2012; UNESCO, 2020). Following Schuelka (2018), it is more beneficial to utilise, modify and improve existing inclusive education practices than to focus solely on its shortcomings. Inclusive education also recognises contextual factors that can shape how the aims for greater inclusion are realised, and it can be helpful to understand inclusive practices from a CHAT perspective to prompt consideration of how these factors might interact (summarised in Figure 2 below).

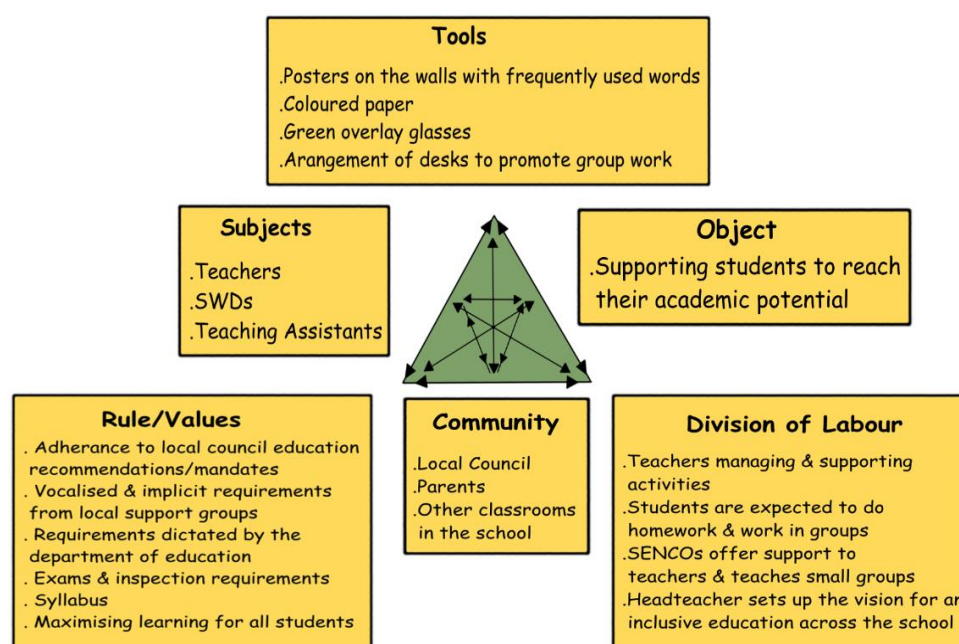


Figure 2 Dyslexia- and learner-friendly classroom as an Activity System

5.6 Dyslexia awareness initiatives

At the time of writing this research, schools in the UK must appoint a SENCO who achieves national accreditation within three years of their appointment through the National Award in SEND Coordination (Lauchlan & Boyle, 2007; Reid, 2019).

The award aims to improve the education of students with special education needs. The Cornwall Inclusive Dyslexia Friendly School quality mark has also been implemented as a training opportunity for SENCOs to become competent in supporting students with dyslexia (Cornwall Council, 2019). In Devon, the Devon Inclusion Award for Dyslexia has been introduced to provide support for and guidance to teachers (Queen Elizabeth's School, 2017). The "SEND and Alternative Provision Improvement Plan," however, significantly modifies the requirements already in place for SENCOs. It is anticipated that this competency certification will begin to be implemented nationally in 2024. The document 'Transition to National Professional Qualification' provides extensive information regarding the accreditation and the essential prerequisites that SENCOs are obligated to satisfy (DfE, 2023).

5.7 Teacher training

There has been a long history of arguing for greater provision for both initial and continuing professional development (CPD) to support teachers, and in particular to prepare teachers to meet the needs of students with dyslexia. Washburn *et al.* (2014) conducted a survey using a sample of preservice teachers from the United States and the UK. The survey was designed to assess their understanding of dyslexia as a language-based learning disability. The findings revealed that a number of participants held several misconceptions regarding dyslexia. Similarly, Daniels (2020) suggests that, even among people who are dyslexia experts, there is still a high level of acceptance or perpetuation of dyslexia myths. Initial teacher training can incorporate SEND awareness as part of their curriculum and CPD courses offer future teachers opportunities to develop knowledge and understanding of dyslexia, but this is

an underutilised and unusual route used to effectively support students with dyslexia (DfE, 2016; Jones *et.al.*, 2019).

Bell and McLean (2016) suggest that dyslexia training in England has been previously managed by entities that incorporate leading figures from dyslexia associations, delivered outside the higher education system. These organisations have built a national competence structure, so educators can train to acquire the skills to execute their roles (Bell & McLean, 2016). Previous research suggests that once teachers are trained to recognise students with dyslexia, they can tailor their teaching style to meet the needs of these students, reducing the likelihood of negative psycho-emotional problems, such as frustration (Valentina, Mihić & Andreja, 2017, cited in Willcutt & Pennington, 2000). Some schools provide teachers with opportunities to participate in CPD training, which includes courses supporting SEND students. The mental well-being component might be included through the introduction of separate programmes such as Social and Emotional Aspects of Learning (SEAL), which are likely to have a positive effect on the experiences of students with dyslexia (Ellis & Tod, 2018). According to Wall *et al.* (2019), in a report on the ‘Drivers, Demand and Supply of SEND CPD’, SEND-related CPD training can be viewed as part of a whole school’s approach driven by internal factors. However, the main barrier and facilitator of demand for SEND-related CPD is the support of the senior leadership team. Other issues may include cost and user friendliness (Wall *et al.*, 2019). In terms of the availability and gaps in the supply of SEND-related CPD, the main challenges identified were disparities in the content provided, finding the time to do CPD training within a heavy workload, and locating these training opportunities (Wall *et al.*, 2019).

Addressing the challenges associated with SEND CPD training could help support the psycho-emotional well-being of students with dyslexia in mainstream

secondary classrooms. However, the main route for teachers to increase their knowledge about dyslexia is likely to voluntarily take a specialised qualification by dyslexia organisation (e.g., BDA), which is not enough to adequately support all students with dyslexia in mainstream secondary classrooms.

5.8 Support for vulnerable students with dyslexia during COVID-19 pandemic

Data collection for this study occurred during the COVID-19 pandemic, which influenced the lives of participants in many ways. According to Betthäuser *et al.* (2023), different research studies indicate that student educational progress decreased during the pandemic, but findings are context specific. Therefore, it is important to consider the social background in which the data was gathered, and how this context could have influenced the information they provided on the topic. The extra workload, stress etc for educators to support vulnerable individuals during COVID–19 could possibly have affected their capacity to participate in the study.

Support for some students with dyslexia during the pandemic was conditional, as some required an EHCP to access certain resources (DfE, 2020). The UK Department of Education (2020) did provide some assistance to the most vulnerable students through online and on-site education, including the online resource entitled Oak Academy, which also provided support to students with SEND (Oak National Academy, 2020). However, this support was actioned following protests that the original site had failed to include SEND-specific resources. Furthermore, it has yet to be substantiated whether these online technological resources encouraged inclusivity through this teaching approach (Allan, 2021). In response to a need for additional support for parents of dyslexic children with or/without an EHCP, private dyslexic organisations, including the BDA, hosted free webinars to help parents support home

learning for students with dyslexia. Supportive content was also provided to parents of students with dyslexia through organisations such as the BERA and the NHS. Teachers also had access to resources on the National Association for Special Educational Needs (NASEN) and SEND gateway websites.

The support provided was inadequate as COVID-19 school closures disproportionately affected dyslexic students and disadvantaged groups were extremely affected (All-Party Parliamentary Groups [APPGs] for Dyslexia & other Specific Learning Difficulties, 2020). There was minimal support, or students with dyslexia received the same amount of support from schools as other students, while parents were left to support their children on their own (APPGs for Dyslexia & other Specific Learning Difficulties, 2020). The Sutton Trust Policy sought to ensure that students from underprivileged or lower socio-economic families were given access to technological and virtual resources, but these resources were insufficient to support all students with dyslexia from vulnerable socio-economic backgrounds. The main issue was that many parents were not trained or lacked the skills to support students with dyslexia at home despite the resources provided (BDA, 2021). The BDA (2021) also reported that most parents in contact with them had problems addressing the psycho-emotional, behavioural, and educational needs of their children during the pandemic. Similarly, the APPGs for Dyslexia & other Specific Learning Difficulties (2020) reported that parents believed they lacked the requisite skills. The literature suggests that this lack of skill and knowledge may have produced negative experiences for both parents and students with dyslexia (House of Commons Education Committee, 2020).

In Ashbury *et al.* (2020) empirical study, parents of children with SEND were asked to describe how COVID-19 affected their mental health, as well as their child

with SEND. It was found that both students' and parents' psycho-emotional well-being was negatively affected to varying degrees due to school closures. Some parents reported that their daily routines and support systems were severely disrupted, and they had to perform the role of teacher with no prior training. Daniels *et al.* (2020) argue that students' anxiety and other mental health problems are likely to have increased or worsened due to school closures. The support provided to students with dyslexia during the COVID-19 pandemic and the transition process for students with dyslexia into another school are important aspects considered in this research.

5.9 Supporting transitions from primary to secondary school

Le Métais (2003) suggests eleven-year-old adolescents experience the move to secondary school as a significant milestone, whereas some countries do not separate primary from secondary school. For example, a different model of transition is found in Jamaica where there are both junior high and secondary schools. Junior high school students are educated in the same school from years 1 to 9, then they move on to year 10 in a mainstream secondary school. A plausible reason students go to a junior high school as opposed to a secondary school is because their scores were low on the government school leaving exam (Primary Exit Profile [PEP]) to matriculate directly to a mainstream secondary school (World Education Reviews, 2022). Therefore, greater numbers of students with dyslexia who attend a junior high school are expected to get additional support to reach educational milestones (Ministry of Education Jamaica, 2014; World Education Reviews, 2022). However, some may have negative psycho-emotional experiences. Whenever the transition occurs to secondary school, for some students this can be the most challenging time in their school journey. The issues related to this important milestone may have a lasting or

short-term impact on students' academic and well-being (Hopwood, Hay & Dymment, 2016; van Rens *et al.*, 2019). Students undergoing such transitions may be concerned about changes in school size, organisation, structures, teacher pedagogy, rules, expectations and attitudes, heavy workload, using public transportation, and adjusting to a new peer group and school community all of which is likely to impact their identity and psycho-emotional well-being (Foley, Foley & Curtin, 2016; Jindal-Snape *et al.*, 2019).

The transition from primary to secondary school is a multi-faceted and intricate process (Foley, Foley & Curtin, 2016). Teacher support can help create positive or negative experiences for transitioning students (Jindal-Snape *et al.*, 2019). Research suggests that supportive, knowledgeable teachers are likely to create such positive experiences where they combine a mixed curriculum that is well structured with insightful teaching strategies, promotion of diversity, consistency, and good interactive skills (Demetriou, Goalen & Rudduck, 2000; Humphrey, 2003; Rowan, 2010). Negative experiences may lead to negative psycho-emotional outcomes, for example, if students perceive teachers as having a bad attitude, being too stringent, lacking rapport building skills, allocating an excessive amount of homework or schoolwork that is too challenging, attaching too much pressure on scores, or promoting unrealistic expectations (Foley, Foley & Curtin, 2016; Wang & Holcombe, 2010). Parental participation may also help create positive psycho-emotional experiences for students with or without SEND (Rowan, 2010). However, parents might experience elevated levels of stress due to school demands, producing an indirect negative impact on students with dyslexia well-being and experiences (Maras & Aveling, 2006).

Preparation activities that incorporate a whole school approach are another factor. Evangelou *et al.* (2008) maintain that secondary schools should organise an orientation day or school tours to help primary students prepare for learning in a mainstream secondary environment. Jindal-Snape *et al.* (2019) concur that preparation activities can assist students with dyslexia to develop good interactions following the move, reducing the likelihood of confusion. Lucey and Reay (2000), however, suggest preparation activities may induce anxieties, so dialogue with the student is required throughout this process to address any fears. One whole school preparation activity includes helping students to develop social relationships through participation in extracurricular activity and social engagements (Coffey, 2013). According to Evangelou *et al.* (2008), this strategy may help students make new friends, reducing loneliness and increasing inclusion. Schools may also use anti-bullying interventions, social development education and counselling to assist students' transition from primary to secondary school (Humphrey, 2003; Lester *et al.*, 2012). While these strategies may be useful, contextualisation, socio-cultural background and specific school requirements may need to be considered to improve the effectiveness of such supportive strategies.

The relationship between activity systems can affect the transition process. van Rens *et al.* (2018) suggest that transition procedures can encourage useful relationships between activity systems such as primary and secondary schools. Detailed information about shared tools and objects are not always provided to the school that the student is transitioning to (Topping, 2011). Evangelou *et al.* (2008) suggest that schools prefer to collect their own data, as they do not trust the information from the former school. Jindal-Snape *et al.* (2019) propose that to increase trust between schools, there are opportunities for collaborations between

schools that can be further supported by the local authority and through initial teacher training. Foley, Foley, and Curtin (2016) maintain that greater collaborations and better communication among activity systems will have far-reaching benefits in supporting students during the transition phase. Policy can also influence practice. In the UK, schools may use the SEND Code of Practice as a guide in creating transition guidelines. Local authorities may also provide transition guidelines to support students with or without SEND, but none is dyslexia-specific (Evangelou *et al.*, 2008). Plymouth Local Council, for example, produces a transition framework that includes recommendations from the SEND Code of Practice which aims to guide the transition process for early years to key stage four (DfE & DoH, 2015). The number of schools adopting this framework and improving the transition process, including the experiences of students with or without SEND, requires further investigation.

Individual factors may also affect how students with dyslexia perform during the transition phase. Utilising strategies as part of a whole school approach may increase students' global self-esteem and coping or problem-solving skills, contributing to positive experiences during the transition process (Morin *et al.*, 2013; Jindal-Snape *et al.*, 2019). General transitioning strategies can be tailored to support and accommodate most students; however, stress and vulnerability to challenges increases when students have a special learning need (Maras & Aveling, 2006; Foley, Foley & Curtin, 2016).

Transitioning to secondary school is an important stage for students with dyslexia since this life change may shape their identity (Lithari, 2019). Dyslexic students may, however, struggle academically during the transition phase (Arthur *et al.*, 2010; West, Sweeting & Young, 2010). This can affect their psycho-emotional experiences but also their academic and social development (Weiss & Baker-Smith,

2010). Students at this age are also dealing with issues related to puberty, which can affect their psycho-emotional well-being and school achievement (Cavanagh, Riegle-Crumb & Crosnoe, 2007; Waters *et al.*, 2012; Alimohammadi & Samani, 2019). For some students during the transition stage, making friends and being accepted by both teachers and peers is an important part of building their self-esteem (Evangelou *et al.*, 2008). Some may experience higher levels of worrying and sadness, leading to an increase in behavioural problems (Weiss & Baker-Smith, 2010; Jindal-Snape *et al.*, 2019). In non-inclusive classrooms, where there is immense pressure, stress, and competition to achieve academic success students may struggle or lose interest in school (Wang & Holcombe, 2010 ; Topping, 2011; Chang, 2012). This can lead to negative effects on their mental health, behaviour and learning progression. On the other hand, students with higher self-esteem and abilities have better experiences during the transition process, contributing to higher level school of achievement (van Rens *et al.*, 2018).

The extent to which students with dyslexia are affected by identity formation issues will depend on their subjective experiences and learning needs (Humphrey, 2002). Stressors may increase if the student transitions without friends (Lucey & Reay, 2000; Topping, 2011). Bullying or peer harassment occurs when students are repeatedly and continuously exposed to harmful behaviour by another student (Olweus, 2013). This can negatively affect their experiences, well-being, and self-image (Lucey & Reay, 2000; Glazzard, 2010; Healy, Sander & Iyer, 2015). Students with SEND have higher rates of being bullied than students without SEND (Hellendoorn & Ruijsenaars, 2000; Eissa, 2010; Foley, Foley & Curtin, 2016). Although, both SEND and students without SEND fear being bullied, with more cases

of verbal rather than physical bullying (Foley, Foley & Curtin, 2016; Jindal-Snape *et al.*, 2019).

To support SEND students through this formative stage, teaching coping skills can be included in a whole school approach (Topping, 2011). Maras and Aveling (2006) suggest while some SEND students may cope well with the challenge of transitioning from primary to secondary school, some may need extra support. Frith *et al.* (2013) carried out a program tailored for students with dyslexia named Success and Dyslexia in two primary schools as part of a whole school's approach; 157 students participated in the associated study, of which 23 were dyslexic, aged 10 to 11 years old. Although the number of students with dyslexia in the study was small, the findings revealed that introducing the program at a timely stage in primary school resulted in better coping skills (Frith *et al.*, 2013). Effective coping skills may create positive experiences for students with dyslexia, thereby increasing the probability of good mental health. Humphrey (2002) maintains that self-concept and self-esteem enhancement programmes can be used to improve and shape students with dyslexia identity formation, and a key element of self-development may include teaching students how to effectively manage academic and social challenges (Coleman & Hendry, 2002; Singer, 2007). Among the other strategies employed were calming methods, development groups, curriculum linking the facilities, and transfer team strategies, in which a support personnel helped students during their final trimesters in primary school, and upon their transition to secondary school, executing a work plan to prepare them for the change. The extent to which these strategies will be beneficial to students with dyslexia in mainstream secondary schools requires further research.

5.10 Chapter summary

A bio-psycho-social approach and using CHAT can help us to understand the psycho-emotional experiences of students with dyslexia, particularly in relation to changing practices that can affect their learning in mainstream secondary classrooms. Expansive learning happens at the level of the activity system (Engestrom, 2015). This occurs when the elements of an activity system are in a state of flux (Lautenbach, 2010). This can happen when there is a change in any of the elements, such as a new subject, object, tool, rule, or community (Lautenbach, 2010). When the elements of an activity system are in flux, it creates a sense of disequilibrium and uncertainty (see Section 4.4.5). This can be an uncomfortable experience, but it is also an opportunity for learning for everyone involved in the system (see Section 4.4.5). Researchers cannot simply examine individual thoughts as if they exist in space, ignoring the various activities that people engage in and groups to which they belong (Rogoff *et.al.*, 1995). Sociocultural theory, looking at how systems develop in response to change but informed by what happened in the past, can help to understand current and changing practices in supporting students with dyslexia.

Incorporating theoretical and practical developments in the field of inclusion can also help to understand what it is like to be dyslexic in the changing educational landscape. Booth and Ainscow (2011) developed Index for Inclusion as a tool for schools to self-evaluate how inclusive they are and is referenced throughout the thesis. The three dimensions of culture, policies, and practice clearly relate to the findings. Despite contributions such as Booth and Ainscow's to the field, inclusion continues to be a struggle, as Allen maintains, and is recognised as a challenge in mainstream secondary schools (Allen, 2017). Florian (2013) suggests one of the

challenges is that in highly individualistic and competitive education cultures, more value may be placed on high rankings in standardised achievement tests and school inspections than on collaborative learning. This helps to generate a deeper understanding regarding the object of the activity system and how changes could be made.

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Depending on the ethos (system of values) of the school, they may value dyslexia awareness initiatives to make classrooms more inclusive. Edwards suggests activity theory can help create interventions based on knowledge of human functioning and experiences through a socio-cultural lens and provides a comprehensive method to appreciate learning (Edwards, 2011). The bio-psycho-social model and the Vygotskyian socio-cultural approach share similar fundamental beliefs. Both models focus on how cultures and environments influence an individual's abilities and disabilities, as well as how others perceive them (Bøttcher & Dammeyer, 2012). The next section looks at the research methodology.

Chapter 6

Methodology

6 Methodology

6.1 Introduction

The review of the literature has highlighted the need to consider both a socio-cultural and a bio-psycho-social approach to facilitate an understanding of the experiences of students with dyslexia in mainstream secondary classrooms. It has also been claimed individual and environmental factors can affect that experience with reference to the dyslexia debate (Amineh & Asl, 2015). Additionally, the bio-psycho-social model and CHAT are useful in exploring the psycho-emotional experiences of students with dyslexia in a mainstream secondary classroom (Foot, 2014; Hudson, 2016). The aims of the study were translated into specific research questions (see Table 1).

Table 1 Research questions addressed via data sources.

Research Questions	Data Sources
Case 1: What do students with dyslexia say about their psycho-emotional experiences in mainstream classrooms in South West England?	Five Students with dyslexia participated in a 1:1 semi-structured interview to get their viewpoints as present-day students in a mainstream classroom.
Case 2: What do current students with dyslexia say about their psycho-emotional experiences in mainstream secondary classroom as an activity system in South West England?	Eight university students shared their past experiences in mainstream secondary classrooms. Two focus groups (Five students in one three in another attending different universities in South West England.

Case 3: What do educators say about students' psycho-emotional experiences in mainstream classrooms in South West England?	Five participated in a focus group, including one SENCO and one teacher from a mainstream secondary school. Five semi-structured interviews including: two LSA / three teachers.
Case 1, 2 & 3 What are the implications of these three perspectives for the development of strategies to support the psycho-emotional needs of students with dyslexia in mainstream secondary classrooms?	All data sources

The proposed audience includes teachers, students with dyslexia, educators, scholars, practitioners, local, government and advocate organisations in inclusive education. A qualitative methodology was selected to address the research questions and deemed appropriate given the purpose of the study. This chapter discusses the specific methods adopted, including background information about the strategy, the chosen philosophical paradigm researcher's positionality and reflexivity. It also provides details of the population, participants and sampling techniques used, the methods of data collection, analysis, and implementation, as well as an evaluation and rationale for the chosen methodology. The chapter concludes with a discussion of ethical considerations, which were a crucial aspect of this research.

6.2 Background information about the strategy

Qualitative research includes several methodologies to investigate and understand the importance people give to social or human issues by exploring individual meanings and perspectives (Creswell, 2009). Adopting a qualitative

orientation implies understanding the research topic from the perspectives of all those intimately involved with dyslexia (Zambo, 2004). Similarly, Rogers and Ludhra (2011) maintain that this approach allows the different voices of those being researched to be heard through the data gathered. Secondly, it seeks a more reflective comprehension of a phenomenon rather than separating it into factors and numbers although understanding can also be achieved using qualitative research (Ary *et al.*, 2018). According to Allen (2017), a qualitative approach opts for a different kind of research without the manipulation of the research environment associated with experimental quantitative approaches and does not emphasise hypotheses testing using numerical techniques (Creswell, 2009; Bryman, 2016). The specific research outlined here is a multi-temporal case study design, aimed at understanding a bounded phenomenon (the experience of secondary school students with dyslexia in South West England). According to Mills (2010), the design is a methodological technique that uses multiple data collection methods to comprehensively obtain knowledge about the performance of a given bounded system, including an in-depth investigation of the context.

6.3 Researcher positionality

Researcher positionality affects what is researched, how it is researched, conclusions and outcomes (Foote & Bartell, 2011). The researcher's stance underlying this thesis posits that the experiences of students with dyslexia are real and can be influenced by both individual factors and environmental factors. The researcher acknowledges that it is possible to combine both a culturalist and constructivist perspective, showing how culture and substantive societal practices contribute to identity development (Holland *et al.*, 2001; Stetsenko & Arievidtch,

2004). Based on this understanding, the researcher suggests that human interaction can be understood from a socio-cultural and bio-psycho-social perspective. The latter emphasises the individual as a biological and psychological entity, while the socio-cultural model highlights the importance of culture (and history). The bio-psycho-social model and socio-cultural approach (CHAT) can effectively contribute to the exploration of experiences encountered by students with dyslexia within mainstream secondary classrooms. The bio-psycho-social model places a strong emphasis on individual factors, including both biological and psychological aspects. On the other hand, the socio-cultural approach highlights the significance of social interactions, cultural influences, and historical context. By combining a bio-psycho-social model with a socio-cultural approach, the researcher believes individuals construct meanings about their personal experiences of dyslexia through collective interaction. This integrated framework acknowledges the interplay between biological, psychological, and social factors, while also considering the influence of cultural and societal contexts. The individual's specific cultural and social context influences how they perceive biological differences, which subsequently shapes their experiences. Although there are various views on dyslexia, the reader can understand the researcher's approach to the investigation by examining the theoretical framework adopted.

Positionality serves as a guiding principle in shaping the researcher's objective comprehension of the research subject matter (Savin-Baden & Major, 2013). Furthermore, it can influence the study's results based on the theoretical positionality adopted (Tønnessen & Uppstad's 2015). The researcher demonstrates the adoption of the cultural-historical approach to dyslexia, which emphasises the dialectical relationship between the individual with a disability and the surrounding society. This

approach is combined with awareness of the potential impact on identity and a systemic approach to the context. The provision of support for individuals with disabilities extends beyond the mere administration of tests or the implementation of assistive measures. It requires a comprehensive understanding of the interplay between the individual and their context. Sikes (2004) suggests researchers should find their own voice, while acknowledging the complexities of a research topic. Researchers should also recognise their preconceptions, which include previous experiences, beliefs, motivation, qualifications, perspectives, and theoretical foundations discussed further in the section on reflexivity (Malterud, 2001). Thus, the researcher recognises that positionality encompasses more than just one's own personal preferences. It also represents one's guiding framework, which incorporates one's experiences, learning, and the environment in which the study is situated. The researcher's positionality as an early researcher was guided by an intense desire to acquire as much knowledge on the topic as possible by reading widely and attending conferences and workshops. The researcher was able to compose an extensive literature review on the topic, which helped shape positionality. The researcher's personal experience (set out in section 6.5) prompted the focus on the psycho-emotional experiences of students with dyslexia from students' and educators' perspectives. The researcher's theoretical standpoint encouraged consideration of how their knowledge of dyslexia can be socially constructed based on their socio-cultural background or bio-psycho-socially determined. Different truths are experienced unpredictably by different individuals, dependent on a person's perspective and lived experiences (Baxter & Jack, 2008; Mack, 2010; Grbich, 2012).

6.4 Philosophical paradigm

While different perspectives are acknowledged about dyslexia, explanation of the researcher's philosophical paradigm helps the reader to understand her approach to the study. According to Fleetwood (2005), "the way we think the world is (ontology) influences: what we think can be known about it (epistemology); how we think it can be investigated (methodology and research techniques)" (p. 197). Ontologically, the perspective adopted in this research is a bio-psycho-social model together with a socio-cultural focus within a critical realist stance. Critical realism is a philosophical stance that holds an intermediary position between positivism and interpretivism. Positivism posits that knowledge is generated through objective methods similar to those used in the natural sciences, such as seeking universal laws that enable prediction and control. On the other hand, interpretivism emphasises subjective experiences and individual differences in the perception of reality. Critical realism steers clear of the extremes represented by these two positions. It recognises the value of objective inquiry and the importance of seeking universal laws, as advocated by positivism. However, it also acknowledges the limitations of relying solely on objective methods and underscores the influence of subjective experiences in shaping our understanding of the world. By adopting this balanced approach, critical realism aims to provide a more comprehensive and nuanced account of knowledge and reality.

Critical realism acknowledges the ontological reality of the world and recognises that knowledge production is fallible, imperfect, and influenced by the theories adopted by researchers. However, critical realism does not assert that knowledge production is wholly determined by these theories. In other words, the research methods in this study were influenced by the bio-psycho-social theory of the individual within a socio-cultural theoretical approach to learning and development,

but this approach does not completely determine what the reality of dyslexia is like for all individuals. Critical realism means acceptance of an external objective reality which works independently of our awareness or knowledge of it. The bio-psycho-social model is useful because it does acknowledge the material reality of dyslexia for individuals; however, how it is understood beyond that differs from individual to individual based on how it is socially constructed according to context. Data were generated from conversations with the research participants and then that information interpreted to consider their perspectives of what happened in that moment to enable the researcher to provide in-depth findings on the topic.

Critical realists draw a distinction between ontology, which pertains to the nature of existence and reality, and epistemology, which encompasses our concepts and knowledge regarding that which exists (Bhaskar, 1975; Archer, 1998; Bhaskar, 2002; Bhaskar & Danermark, 2006). It is, however, very difficult to separate the researcher's ontological from their epistemological position. From an epistemological perspective, the researcher adopts a predominantly interpretivist approach, wherein the significance of events is actively constructed and attributed by individuals through their subjective understanding and interpretation. Furthermore, the research incorporates a social constructivist emphasis, recognising the dynamic interplay between social interactions and the formation of knowledge (Crotty, 1998). The field is very nuanced in terms of psycho-emotional responses and based on how knowledge of dyslexia (historically, socially, & culturally) is constructed can vary from person to person however, multiple perspectives are crucial to understand the research topic.

The methodological framework was guided by CHAT but was also influenced by the three dimensions of the IFI (Booth & Ainscow, 2011). CHAT enables a more exploratory approach, whereas the IFI is framed by specific questions which are

indicators, prompting a more heuristic approach. CHAT uses as a systemic approach to explore how dyslexia is managed within schools and how this shapes the experiences of this involved; the history and the social context as well as the purpose of the organisation will help to shape students' experiences. Using this approach suggests that changing one part of the system it is going to affect other parts of the system. However, in this research, the focus is less about the history and evolution of the system but the people within the system and the psycho-emotional effects on them . One part of the rationale for using CHAT was that educators and students with dyslexia have different perspectives being part of the system. Focusing on analysing particular elements of CHAT (subject, objects, tools, rules, and contradictions) helps to highlight aspects of the experiences of participants within mainstream secondary classroom as activity systems (Sannino & Engeström, 2018). While these concepts prompt analysis around each of the nodes, finding different understandings of the object will enable an exploration of the differences between the three participant groups' perspectives and help to surface contradictions from different aspects of the system.

6.5 Reflexivity

A multi-faceted approach to reflexivity was adopted throughout the study. The following section includes a discussion on the researcher as data collector and analyst. The implications of these are also considered in the limitations section (see Section 10.4).

Researcher as data collector

Personal reflexivity impacted every stage of the research process. The researcher's motivation, assumptions, beliefs, background, and experiences played a

significant role in how the data were collected, analysed, interpreted, and written up. Reflexivity helped the researcher understand not only her role and motivation in the study, but also how this could influence the trustworthiness of the findings (see Section 6.11 & Dodgson, 2019). The researcher was motivated to carry out a study into dyslexia to make a difference following a personal experience. This was combined with a sense of responsibility to the Commonwealth Secretariat Commission, who believed the findings could improve access, inclusion, and opportunity for students with dyslexia in line with UNSDG4 (United Nations Department of Economic & Social Affairs, 2023). These personal motivations shaped how the study was designed and the way the researcher interacted with the participants. The researcher adopted a socio-cultural approach to dyslexia in conjunction with an awareness of how this might relate to identity and a systemic approach the context. As outline above, this is aligned with activity theory (highlights the importance of culture and history) and a bio-psycho-social approach (emphasises the individual as a biological and psychological entity) as the researcher considers both the participant and their particular environment. The researcher was aware that her theoretical assumptions about the nature of research could shape the way the study progressed. Therefore, she used a research journal to document her own beliefs, reactions, and decision-making, while also valuing the participants' subjective understandings and meaning on the topic.

The issues of power dynamics and authenticity between the researcher and the participants were recognised. The researcher acknowledged she is not dyslexic, nor does she have any family member who is dyslexic. Therefore, she might be considered an outsider by some participants (Beals, Kidman, & Funaki, 2020). The researcher, however, during data collection shared her own experiences of supporting

students with dyslexia (although sharing only when necessary) with the hopes of developing rapport.

Honesty is an important part of relationship building, but this issue can be problematic in data collection, especially if participants, for their own reasons, choose to be disingenuous or to withhold information about certain aspects of their experiences. Participants could also choose to present themselves in a way that they perceive as socially acceptable. Both the interviews and focused groups are social encounters and are shaped by the same tendencies that shape all social interactions. The researcher kept an eye on the verbal and nonverbal responses that the participants used to express themselves, especially viewpoints they shared as ‘true’, but which were inconsistent with what they had expressed earlier. The researcher was also cognisant of impression management strategies that participants might use during the data collection. To mitigate this, the researcher reassured participants that the data was collected and would be reported anonymously. Semi-structured questions were predetermined, but they were not leading or loaded, and participants had the option of not answering.

Another potential issue was the interpretation of participant accounts, which did not come from the data collected, or from the literature, but from the researcher’s own thinking on the topic and her theoretical position using activity theory and a bio-psycho-social approach. The researcher maintained an audit trail to keep track of her own perspectives and acknowledged when there were possible mismatches, for example between the words she used and how the participants themselves might want to be referred to. For example, after a meeting with mental health support staff at the University of Plymouth during the proposal stage of the study, the researcher reflected on a conversation about appropriate terminology and made a note in her study journal,

“Maybe I should forget using dyslexia and say neurodiverse, but why? How would it make participants feel?” The researcher therefore always asked the participant how they wanted to be referred to throughout the data collection process and continued to recognise these different preferences throughout the data analysis and write-up.

Through methodological reflexivity, the researcher considered the impact and nuances of methodological choices in the research process. The researcher’s theoretical orientation was considered early in the research, as underpinned by highlighting the dialectical relationship between the person with disability and the surrounding society. The researcher maintained an awareness of how this approach could affect methodological choices and participants viewpoints on the topic. The researcher revised the study’s ethical considerations in accordance with amendments suggesting methodological alternatives. Due to the COVID-19 pandemic, the researcher had problems with recruitment therefore expanded the range of participants. The researcher was aware of how this shaped her methodological choices, while still protecting participants who might be experiencing additional stress. It was difficult to contact secondary school participants and educators directly. Therefore, the researcher was dependent on gatekeepers and their understanding of dyslexia, especially in contexts where Local Authorities do not support a dyslexia diagnosis. The management of recruitment under these difficult circumstances is explained further in section 6.6, but the way recruitment issues shaped the sample was borne in mind when interpreting the findings.

Contextual reflexivity was also key throughout this research; it was crucial to understand the social context in which the data was collected, and how this might have affected the responses participants gave. Due to school closures, participants were invited to participate in semi-structured interviews and focus group discussions

virtually via zoom at home. An online setting was created by the researcher to gather data, but the researcher needed to bear in mind how participants' home environment, online persona, or the use of zoom might influence their responses. The researcher was aware that guardians might be present during interviews with young people, as many people worked remotely from home due to the coronavirus and their presence could have affected how much participants felt able to share with the researcher. This awareness was considered when scheduling the interviews and making plans for the participants' privacy. It is likely that parents' presence influenced how young participants responded to the questions. The researcher sought to limit these effects by building rapport with participants and increasing her knowledge of conducting research with young participants (Bucknall, 2014). The researcher was also able to draw on her previous knowledge and experience of data collection with young people as a Youth Empowerment Officer and Mental Health Counsellor in two different children's homes. She was aware of interplay between the participants and context that may contribute to possible power issues between older researchers and younger participants. Although there were no obvious signs of power struggles between the researcher and younger participants the researcher was aware that some memories or responses were encouraged by the parents (role of parents as part of the community in activity theory), and that participants might have given different responses if they had not been prompted or away from their parent (Gardner & Randall 2012; Kelly, 2020). To maintain the focus and authenticity of the participants' comments, the researcher always asked the participants if they would like to share any other responses that were different from the one prompted by the parent. In some cases, the participants changed their response, adding to the richness of the data collected.

Researcher as data analyst

Throughout the process of analysing the data, the researcher needed to be aware that her own experience, or lack of experience, might affect interpretation of the data. There could be issues with misunderstanding what participants were saying, possibly due to unfamiliarity with the UK education context and tuning in to different accents. Therefore, during the pre-analysis stage, the researcher carefully listened, watched, paused, and re-watched the video recordings to reduce any misunderstandings. When uncertain of her transcriptions, she sought confirmation from another listener. The researcher had limited experience of dyslexia in UK schools, which could have also affected how she interpreted the data. To mitigate this, when COVID-19 restrictions were lifted, the researcher took on a new position as a TA in different types of schools in Plymouth, which helped her gain fresh perspectives on the support available to students with dyslexia. Through observing and supporting students in a practical setting, the researcher deepened her understanding of the topic; this is considered further in the implementation of data analysis section.

Another issue was that the researcher was the sole coder. To ensure consistency across the data analysis, the researcher created a code book for herself, so she could be reminded what the codes meant and develop her understanding of the range of codes over time. The codes were developed based on the researcher's theoretical perspective, which is consistent with an activity theoretical approach and a bio-psycho-social approach that considers both the individual and the environment.

Finally, due to COVID-19 restrictions, the data collection and analysis process was spread over a long period. Therefore, the issue of consistency over the course of the data analysis needs to be addressed. The researcher spent considerable time revisiting the themes identified at different stages. After many months of continuously

identifying and revising themes, through careful recording of changes during the process of analysis, the researcher could be confident in moving to the final stage of consolidating the overarching narrative across the three strongest themes. The researcher was also able to present the research findings at conferences and workshops at various points during data collection and analysis to gain new perspectives on the data. These processes of reflexivity and consultation with others helped the researcher become a more self-aware and critical scholar.

6.6 Participants and sampling technique

Purposeful sampling can be used to select participants based on the needs of the research to compile information-rich cases and was a suitable sampling method for this research (Palinkas *et al.*, 2015). Participants included those with confirmed diagnosis and who self-declared or were identified by their school as dyslexic. There is no single set of criteria for assessing reading ability, as reading is multifaceted, context-dependent, and constantly changing (Catts, 2018; Cilibrasi, & Tsimpli, 2020). Therefore, a confirmed dyslexia diagnosis was not needed for the purpose of the study but rather self-identifying as dyslexic was significant.

Multiple participants' perspectives fit in with the CHAT approach, which seeks to address questions from the point of view of the 'subjects' of an activity system, not some external judgement or literature on what is/is not dyslexia. The researcher arrived at the decision to include these groups of participants to capture the views on dyslexia, despite her own critical realist stance and the assumption that dyslexia is 'real' and derives from some biological and psychological difference, but also shaped by context and experience. Adopting a broadly interpretivist with a social constructivist, it is the different voices/perspectives of the participants on the topic

that shape the data collected and the findings. Additionally, the researcher chose to give participants pseudonyms instead of using their actual names to safeguard their privacy. Temporal and role boundaries were formed around three main groups (secondary students [Case 1], university students [Case 2] and educators [Case 3]) see participant sample in the table 2 below.

Table 2 Participant details

Participant	Pseudonym	Age**		Gender		Diagnosis Type	
		<i>Range and number in that range</i>		<i>Male</i>	<i>Female</i>	<i>Self &/ School Identified</i>	<i>Confirmed Diagnosis</i>
Secondary Students	Sole	11-14	1	1*	4	4	1
	Beth Lily Nate Amoy	15-19	4				
University Students	Anna Moses Izzy Amy Cath	25-29	5	2	6	7	1
	Sarah	30-34	1				
	Danny	35-39	1				
	Michelle	40-44	1				
Educators	Claire Misa Lena	30-34	3	1	8	NA	NA
	Jane	35-39	1				
	Mike Rowena	40-44	2				
	Joan	45-49	1				
	Candy	50-54	1				
	Rose	55-60	1				

* M -transgender

**Age range provided instead of age for data anonymity purposes.

In Case 1, five secondary school participants from the South West shared current experiences of being students with dyslexia in secondary school. All students in this group self-identified as dyslexic and had dyslexia recognised by their school, with the exception of one who had both a confirmed diagnosis and self-identification. Participants included one in Key Stage Four (aged 11–14) and four in Key Stage Five (aged 16–18). Four students were females and one identified as a male although born female. Each participant was invited to engage in a semi-structured interview; a supplementary video diary to be conducted over a week was proposed, to gather the viewpoints of students with dyslexia on the topic as current students in a mainstream classroom.

In Case 2, eight participants from South West England reflected on previously being students with dyslexia in a secondary school. All of these students self-identified as dyslexic, with the exception of one who had both a confirmed diagnosis and a self-identification. Five were female, two were male aged between 25-44. These participants were invited to share their past experiences in mainstream secondary classrooms through two focus groups. University students were recruited through research poster advertisements via social media with the intention of gaining a larger sample from students' mainstream schools in South West England. Blogs were written on the research topic, which included a request for participants (see Appendix R). The researcher also attended online meetings and discussions to promote the research and recruit participants. While these creative activities were successful in

prompting interest in the study, it was not enough to influence the entire data collection process.

In Case 3, educator participants reflected on current, past, and potential future experiences supporting secondary school students with dyslexia. The focus group consisted of five participants, four females and one male, including one SENCO, three teaching assistants (TAs) and one teacher from the same mainstream secondary school in South West England. Additionally, three teachers and two TAs participated in a semi-structured interview. The age ranges of participants varied; three were aged between 30-34, one was aged 35-39 and the other 40-44.

When contact was made with suitable participants, the following documents were provided for their approval based on which group they belonged to.

- Information letter for university students (Appendix A)
- Information letter for secondary school students (Appendix B)
- Information letter for educators (Appendix C)
- Informed consent forms (Appendix D)
- Interview schedule for secondary school students (Appendix E)
- Interview schedule with for educators (Appendix F)
- Focus group discussion guide for university students (Appendix G)
- Focus group discussion guide for educators (Appendix H)

Prospective participants could contact the researcher after receiving the documents via email to address any issues they might have. Once agreement was reached to participate an appropriate date and time was decided for the data collection.

Recruitment is an important part of the research process but was very challenging in the context of this research because of the coronavirus (Newington &

Metcalfe, 2014). Communicating with participants prior to data collection and securing their consent to participate was a strenuous task (Patel, Doku & Tennakoon, 2003; Given, 2008). Emails were sent to headteachers, SENCOs, and school administrators of mainstream secondary schools. Most headteachers responded they were too busy to have their students and teachers participate in research at that time, but the researcher remained hopeful. Eventually, two schools agreed to participate in a few months when schools reopened but, when schools resumed, one that had agreed to participate was no longer willing to do so because they were too busy recovering from the pandemic. The researcher understood their position as it was a struggle for most schools to return to pre-pandemic routines. The other school was helpful in providing both student and educator participants for the study. The researcher's original participant sample had included only teachers but, due to difficulty recruiting them, increasing the sample range ensured more depth and thick descriptions to answer the research question. The participant sample was extended to include TAs and SENCOs, but they too were extremely busy, the researcher acknowledged this, but still persisted to collect the data, which could have impacted the information collected. The secondary students were school identified by the gatekeeper as dyslexic, however their motivation or reason for participating could have influenced their voice and the data gathered by the researcher. The researcher, however, wanted more participants to conduct a more in-depth analysis and her supervisors then contacted gatekeepers they knew in mainstream secondary schools, resulting in another school providing participants. Like the other school previously mentioned, the student participants were identified as dyslexic based on the gatekeeper's criteria. Educator participants were also recruited. Mitigation strategies, such as expanding the number of schools and participants, as well as the use of gatekeepers was beneficial.

6.7 Methods for data collection

The selected research methods included semi-structured interviews, video diaries, and focus groups to collect content-rich, in-depth data to address the research questions. All data was collected virtually via zoom. The length of the interviews, focus groups, pre-sessions, and post-sessions were adjusted when needed to meet the objectives of the study.

6.7.1 Semi-structured interviews

Semi-structured interviewing is a familiar data collection technique and the most frequently used interview style in qualitative investigations (Taylor, 2005; (Kallio *et al.*, 2016). Semi-structured interviews are flexible, permitting the building of rapport with participants and conversation rather than digging for information (Dasgupta, 2015; Kirwan & Leather, 2011). Five interviews were conducted with secondary students and did not exceed 30 minutes. Each student was invited to participate in a pre-session to familiarise themselves with what was required of participation, and once completed, the semi-structured interview took place and participants were encouraged to share their personal experiences related to the research topic through neutral and open-ended questions. For example, “What is your understanding of dyslexia?” This permitted exploration of how students with dyslexia understanding might impact their individual experiences. Following the semi-structured interview, a post session was offered to allow participants to ask questions and reflect upon their experience; however, none wanted a follow-up session. (The interview schedule can be found in Appendix E).

Semi-structured interviews were also conducted with educators. These participants were from two different mainstream secondary schools in South West

England and interviews were conducted for no more than 45 minutes. Upon completion, participants were invited to engage in a post-interview session to reflect on their experience of the interview, and three participants accepted. (The interview schedule appears in Appendix F).

6.7.2 Video diaries

Video diaries are a recognised data collection tool that was to be used to collect data from students with dyslexia in mainstream secondary classrooms and provide an opportunity to talk about their daily experiences (Buchwald, Schantz-Laursen & Delmar, 2009). The video diaries were framed around two questions: “How did you feel being in school today and doing your homework?” and “What would you have wanted to be done differently?” Self-disclosures unrelated to the topic would not have been recorded in the video diaries or, therefore, included in data analysis. This method was abandoned given the unavailability of students to share their experiences of face-to-face learning following school closures during the COVID-19 pandemic.

6.7.3 Focus groups

Focus group discussions are one of the most common tools used to explore teachers’ and teaching staff’s beliefs, perceptions, and attitudes (Young, 2019). They were deemed to be a suitable tool for this research, and it was originally intended to have two such groups with educators. The first was designed as an initial focus group, to be followed by another once the data had been analysed. The second focus group, however, did not take place, as participants were recovering from the disruptions to teaching caused by school closures and the COVID-19 pandemic.

Two focus groups were conducted with university students who shared their experiences of being dyslexic in secondary school. The first included three university

students who had attended different mainstream secondary schools in the South West England, while the second focus group had five university students. Both focus groups did not exceed 90 minutes (about one & a half hours). Participants were selected as they met the selection criteria and were willing to participate (Focus group discussion guides are provided in Appendices G & H).

6.8 Evaluation and justification for methodological choice

A multi-temporal case study design is a bounded phenomenon; in this instance, the experience of being a students with dyslexia in a mainstream secondary classroom in South West England and experiences of the support staff that instruct these students. A major advantage of a multi-temporal case study design is its usefulness in addressing how and why questions (Yin, 2003; Ghauri & Gronhaug, 2005). This methodological choice generated sufficient data to address questions about the perspectives of current students with dyslexia in secondary schools, former students with dyslexia now in university and their teachers. Another benefit of this approach is that a multi-temporal case study design offers the flexibility to use an iterative, analytical method to collect and analyse data over the research timeframe. This cyclic process provided information that addressed a gap in the scholarly literature. The decision to use this approach was also based on a preference for thick descriptions (Idowu, 2016). A multi-temporal case study design is also a suitable design for conveying a real-life contextual understanding of students with dyslexia in a mainstream secondary classroom and provides the means to carry out a holistic and comprehensive study (Dasgupta, 2015). Although generalisability is unlikely with case studies, the purpose of this study was not to generalise but to provide trustworthy

information that could inform practices in a mainstream secondary classroom ((Miles, 2015).

6.8.1 Conducting research with children and young people

This study acknowledges the diversity of its participants, which is essential given the design. Participants ranged in age from young people to adults, so it is important to consider literature on interviews and focus groups, much of which is written on the assumption that these are conducted with adults. However, this section will discuss the researcher's methodological choices regarding the approaches taken in relation to researching the views of children and young people. It will begin with a brief exploration of how research with these participants has evolved, then explain how the methodological choices for this study were most suitable for young participants. Next, the issue of power dynamics is examined, and finally, the importance of young people having a voice in research about them is highlighted.

Social research documenting young participants' perspectives is relatively new, with fewer studies on children and young people with disabilities and/or special educational needs (Harcourt & Einarisdottir, 2011, Gulliver, 2023). To omit this population would be a significant oversight, as children and young people with special needs have unique perspectives and experiences that are valuable for understanding their requirements and developing effective inclusive policies and programmes to support them (Graham, Powell & Taylor, 2015; Alderson & Morrow, 2020). Some groups (e.g., The National Centre for Research Methods) still adopt a more natural sciences approach, viewing this group as reliable sources for research data, rather than seeking their views (Horowicz, Stalford, & Byrne, 2023), the IFI on

the other hand, values the participation of children and young people and would not view them as mere data collection tools (Booth & Ainscow, 2011).

As mentioned earlier, a social constructivist approach is appropriate for this social research because it includes interaction between the researcher and participants, regardless of whether or not a student has a dyslexia label or confirmed diagnosis (Kellett, 2011). This approach emphasises the role of social interaction in shaping knowledge and understanding. It also recognises that individuals construct their own understanding of the world through their interactions with others. To help the researcher gain a deep understanding of the experiences of students with dyslexia from their own perspectives, it is therefore necessary to set up an opportunity to interact with them. However, unlike the natural science approach, the young people included in this study are not subject to experimental manipulation, and their behaviour is recognised as not constant or shaped by causal laws. The participants' subjective definitions, perceptions, experiences, goals, motivations, and rights are conveyed in words, which is a key factor in the research methods chosen (Clark *et al.*, 2013; Kellett, 2011). Participants' subjective experiences are the foundation of the research, and the study methods must capture those experiences. Therefore, the participants' rights must be respected throughout the research process, and the findings must be reported in a way that is mindful of those rights (Carroll *et al.*, 2021). Interviews are the most popular and versatile method for conducting research with and about young people. However, it is crucial to carefully consider power differentials and how they may impact data collection to ensure that the data is both trustworthy and sensitive to the context (Kellett, 2011). This includes considering the cultural, social, and economic factors that may have influenced the experiences of young people.

Power differentials can exist in any research setting, but they can be especially pronounced in research with young people as mentioned earlier in the section on reflexivity. In some cases, young people may feel less empowered than adults to speak up or disagree with researcher, and they may feel pressured to give socially desirable answers that they think the researcher wants to hear, but this can be minimised (Bergen, Labonté, 2020). Alderson and Morrow (2020) claim children and young people have more control over what they express in semi-structured sessions. The researcher continually reflected on the methods and tried not to misquote or misunderstand what was said and was aware that she was shaping an environment with young participants where they were interacting with a stranger online (Kellett, 2011). The researcher adopts a cultural-historical approach, therefore acknowledges the significance of relationship dynamics, including power imbalances that may arise from differences in age as well as socio-cultural experiences between the researcher and young participants (Skelton, 2008; Graham, Powell & Taylor, 2015). The research methods chosen for this study facilitated the researcher's ability to build trust and strong relationships with the participants, which are essential factors to consider when conducting social research (Kellett, 2011). Spencer (2021) advocates for the use of child- and youth-centred methods to reduce power imbalances. Video diaries were intended to be used in this research because this was a child-and youth-focused method led by the participant and could be done on their own time.

Researcher integrity can also minimise power imbalances (Spencer, 2021). As a Mental Health Counsellor, member of the BDA, the researcher's professional background uses a child friendly approach that involves listening to, respecting, and acknowledging the participants' lived experiences and viewpoints. These help to

maintain integrity, promote, and protect rights, equality, diversity, and inclusion. This means the researcher constantly thinks about her own biases and how they might affect the research (as discussed in Section 6.5). The researcher verbally and non-verbally communicated to the participants a genuine interest in the data they were providing. This included using a friendly and open tone of voice, making eye contact, and nodding head to show active listening. The researcher also used a flexible approach, allowing participants to share their thoughts and experiences in their own way. This helped create a comfortable and relaxed environment for this group, which in turn led to more open responses (Smart, 2018).

The research design also considered the ethical complexities and sensitivities of conducting research with young people, which were addressed through careful planning and implementation (Graham, Powell & Taylor, 2015; Alderson & Morrow, 2020; Spencer, 2021). Ethical considerations gathering data remotely for studies involving young people may be like those made using face-to-face techniques (Alderson & Morrow, 2020). Later in this chapter (Section 6.12), safeguarding, informed consent, privacy, and confidentiality are discussed in further detail. In addition to these, the researcher ensured that the interview schedule employed age and culture appropriate open-ended questions to enable the collection of thick/rich descriptions to understand students' experiences of being dyslexic and promote positive identities (Kellett, 2011).

While it can be more difficult to think through ethical and methodological concerns when carrying out research with young people, the key objective of research is to improve the lives of young people through knowledge sharing. Clark *et al.* (2013) argue that any theoretical approach that does not consider young people's perspectives on their experiences may only have limited or no relevance to

their existence. This is because young people are experts in their own lives and their perspectives can provide valuable insights into how they experience the world.

Additionally, young participants are often overlooked in society and their voices are often not heard. Mayes (2019) claims that some researchers who adopt a New Sociology of Childhood perspective criticise approaches to studying children and young people that do not engage them or ignore their views. By considering the perspectives of young people, theories can be created that are more relevant to their lives and can help improve their well-being. Theoretically, the researcher takes a socio-cultural perspective on dyslexia, which is a dialectical relationship between the individual with the disability and the community. The researcher acknowledges the interaction between context and person, while incorporating the viewpoints and voices of dyslexic secondary school students.

According to an evidence-based policy manifesto published by the British Education Research Association, this population should be encouraged to have their own opinions and participate in decisions that affect them (Boyask *et al.*, 2015; Carroll *et al.*, 2021). Young people want to participate in research, because they are often eager to learn and contribute to important causes (Mack, Giarelli, & Bernhardt, 2009; Alderson & Morrow, 2020). The voices of this group of participants are significant because they are acknowledged as capable social actors, agents, and part of the social structure. According to Oates (2019), a rights-based approach suggests this population can participate in decision-making processes and should be given the opportunity to do so. Therefore, they have the right to participate in research and not be regarded as objects, but as beings who possess agency (UN Convention for the Rights of the Child, 1989; James *et al.*, 1998; Skelton, 2008; Clark *et al.*, 2013; Mayes, 2019). Alderson and Morrow (2020) recommend young participants should

fully understand their role in any research, so they can make an informed decision whether to participate. Young contributors were not promised immediate benefits from the current research. It is hoped that benefits will occur when the findings are disseminated and implemented. All young people in this research completed an informed consent document after receiving an information letter that clearly explained their role (UK Research & Innovation, 2023). If any questions or concerns arose, pre-meetings were held to clarify them. Research with young participants continues to be shaped over time, with a growing recognition of the need to consider their rights and perspectives. By giving this population a voice, we can learn more about their experiences and perspectives, as well as develop interventions that are inclusive and responsive to their needs.

6.9 Methods for analysis

Analysing qualitative data is a complex process. In other words, it is not just a matter of choosing and implementing an accepted process such as thematic analysis (Grbich, 2012). After careful consideration by meticulously reviewing the research design, the semi-structured interview questions and focus groups discussions had been framed to address the study's research questions and were informed by concepts derived from the literature review. Thematic data analysis involved drawing themes from the transcriptions using a similar six step process (familiarisation, coding, producing themes, revising themes, describing, and identifying themes, and writing up) (Braun *et al.*, 2016). There has been a debate in recent years as to whether thematic analysis is a method or a suitable technique for coding qualitative data (Boyatzis, 1998; Ryan & Bernard, 2000). Despite the lack of consensus, thematic analysis offers an adaptable research tool to guide this research because it deals with

different perspectives and content, hence the need to identify themes. In Braun and Clarke (2006), a theme refers to a pattern of data responses associated with the research question.

6.10 Implementation of data analysis

Analysis of data involves finding patterns, categories, themes, and regularities to make sense of it in terms of the participants' perspectives (Cohen, Manion & Morrison, 2018). Data from interviews and focus groups were analysed using thematic data analysis to identify themes relating to the experiences of students with dyslexia from students' and educator perspectives (Braun *et al.*, 2016). In this research, a similar six step process to Braun was used but not exactly as recommended. Over time, the data analysis was formed by an increase in knowledge and skill that is evidenced in the way in which the researcher was able to adapt Braun's model to suit the needs of this research. The data collection process was protracted and constantly revised to try and accommodate the limitations of COVID-19 restrictions, hence the data arrived in phases.

During the iterative process, five stages were developed, namely, initial coding, expanded coding strategy, producing, and revising themes, identification, and refinement of key themes, and then finally consolidation of the overarching narrative (see Table 2). The themes were generated both inductively and deductively (and were informed by CHAT).

Table 3 Comparison of the Braun *et al.* (2016) stages of thematic data analysis and the current study revised stages.

Braun <i>et al.</i> stages of Thematic Data Analysis	Current study revised stages of Thematic Data Analysis
Familiarisation	Initial coding

Coding	Expanded coding strategy
Producing themes	Producing and revising themes
Revising themes	Identification and refinement of key themes
Describing and identifying themes	Consolidation of the overarching narrative and writing up
Writing up	

6.10.1 Pre-analysis – Transcribed audio recording

All data from the interviews and focus groups were recorded, transcribed verbatim, and encrypted on the same day. Audio and video data were collected from all participants in MP4 format, which was then stored briefly on my personal computer and One Drive and held in accordance with the Data Protection Act (2018). The data were then transcribed using Happy Scribe, a secure online general data protection regulated transcription service. Once completed, the transcription was permanently deleted from the online platform. The fully transcribed anonymised data in plain text (.txt) format was chosen as it meets accepted research standards. This study used Otter a Zoom transcription service to transcribe some data, which were deleted immediately after the transcription was completed. Otter and Happy Scribe do not provide accurate transcriptions; therefore, several months were spent manually going through the recordings and transcriptions to ensure that the information provided was accurate compared to the original source.

6.10.2 Step 1: Initial coding

Part 1: Following transcription of the audio recordings, all transcripts were read several times to ensure familiarity with the data, and the video recordings were

viewed numerous times over one year to identify participants' nuances, feelings, and perspectives. This cycle was repeated several times to ensure accuracy. Notes and comments were made on the transcriptions while engaging in this activity. This enabled inductive identification of recurrent patterns and themes within the data. This process also involved renaming, merging, deleting and uncoding.

Part 2: Since qualitative research can produce copious amounts of data, a qualitative data analysis software was selected. Although such software does not analyse the data, it has some features that can assist the research process, such as storing and organising data, assigning labels or codes to the data, and searching for keywords (Creswell, 2014). The transcripts of focus groups with university students with dyslexia were uploaded to NVIVO in a specific file on a University of Plymouth managed laptop. NVIVO was chosen to help analyse the first set of transcriptions from the two focus groups with university students. The data were analysed immediately following each session and several times subsequently.

The data analysis strategy then moved from inductive coding (based on repeated readings) to deductive coding, using themes generated from the inductive approach and concepts related to CHAT were used to frame the analysis. The transcriptions from university students were manually coded using the comments feature in Microsoft Word. For this stage of analysis, a deductive and latent approach was used to actively look for the themes from step one and structures described in an activity system. CHAT was used as a framework to guide an in-depth analysis of the data at the level of the system. By looking beyond, the surface of the data, a deeper understanding was gained of how they operated within a mainstream secondary classroom. Repeated viewing of the video recordings ensured understanding of how participants expressed themselves verbally and non-verbally on the topic. Listening to

recordings, while analysing the data, brought into focus the human element that transcribing can remove.

6.10.3 Step 2: Expanded coding strategy

Part 1: NVIVO was used in the preliminary stage to code data from the two focus groups with dyslexic university students. When generating the initial codes, nothing specific was looked for. With the expanded coding strategy, some codes could be grouped as nodes using CHAT. Nodes were created in NVIVO by working through each code in the data sets. Important points were highlighted, while manually coding the transcriptions in Microsoft Word and creating highlights of related codes, while repeatedly going through the data set. Additionally, colour-coding was used for the different clusters so they could be easily seen, and a code book was created to define what these highlights meant, allowing clear interpretations while engaging in this activity.

Part 2: A second coding was carried out using the full coding book, and themes were manually refined by reviewing the highlights in transcriptions in Microsoft Word.

6.10.4 Step 3: Producing and revising themes

The production of themes comprised three phases. Data were collected from two focus groups with university students, then coded using NVIVO to group information into nodes and clusters and followed by the identification of two overarching themes: coping mechanisms and self-esteem. The parent node 'Coping mechanisms' included sub nodes such as tools, emotional and task coping, as well as avoidance-based coping. This supports the argument that participants have their own subjective understanding of dyslexia and experience of classroom structures, and that

they develop coping tools. The ‘Self-esteem’ parent node included sub nodes such as socio-cultural, school, and social self-esteem, and attitudes related to students with dyslexia psycho-emotional feelings and cognition in a mainstream secondary classroom. Aspects of self-esteem were reflected in the literature review. Labels, emotion, cognition, and identity are connected (see Section 2.4). The importance of self-esteem has been mentioned in relation to current and changing practices supporting students with dyslexia (see Section 5.9). Relationships were initially not identified in the university student data. However, later analysis showed that they had reported relevant information about their relationships with teachers and peers.

The initial themes were first developed during the COVID-19 pandemic; however, once restrictions were lifted, more data was collected via focus groups and semi-structured interviews with other participants (teachers, TAs, and secondary students). The researcher also took on a new role as TA in mainstream classrooms and special needs schools as restrictions were eased, enabling observation and support of students with dyslexia in a real-life context and to further knowledge of this learning difference. Data gathered at this stage were therefore subjected to deeper analysis. Subsequently, the initial data gathered from university students via online focus groups were manually coded for a second time using Microsoft Word, along with all the data gathered post-lockdown. In the second phase, revised themes were identified and built on the themes identified during lockdown.

6.10.5 Step 4: Identification and refinement of key themes

During this phase, data were reviewed to ensure that the groups of coded data were not related and could not be further separated. The current study defines themes as strong similarities and key arguments identified within the data, which represent

the perspectives of participants linked to the aims and objectives of the research as interpreted by the researcher. Themes were iteratively developed from coding and interpretation of data during analysis and were meticulously organised in order that data could be analysed consistently. In order to answer the research questions, the themes were also presented in a narrative form. The subthemes from the first stage and this second stage of analysis were considered, and revised subthemes were identified.

In this phase, there was refinement of definitions of the subthemes and overarching themes. NVIVO was used to collect similar nodes and re-assign them under a parent node in the initial stages, whereas later Word was used to revisit the coping mechanism and self-esteem node, which helped clarify the theme. Indicators for interactions in inclusive classrooms (e.g., dyslexia- learner friendly classrooms) were encoded under relationships and structures. Indicators within the activity system of current and changing practices of teaching students with dyslexia in UK secondary mainstream classrooms were encoded under structures. Indicators of subjective perspectives on dyslexia relating to the dyslexia debate and the psycho-emotional experiences of the participants were encoded under identity. Due to its emphasis on processes, transition was absorbed under the 'structure' theme and 'friendships' under the relationships theme because the data overlapped, reducing the overarching themes into three key areas. The subthemes from the previous steps provided the framework for the final subthemes.

6.10.6 Step 5: Consolidation of the overarching narrative across the three strongest themes and write up

Once no further themes could be identified, the findings were finalised, and discussion was organised around patterns derived from the data within the distinct

phases of data analysis. Although some aspects of Braun and Clarke's (2016) Reflexive Thematic Analysis (RTA) were used as a guide, the analysis was carried out by developing an understanding and awareness of dyslexia. Using the pattern of themes provided by the three groups of participants, the research questions were addressed. The data analysis was not a linear process but, rather, involved iterative shifts between the five stages. Reflexive Thematic Analysis requires thoughtful and intentional engagement between the researcher and the data, as well as mindful and careful interaction with the analytical process (Braun & Clarke, 2019).

There were, however, several contradictions within the data. Contradictions manifested as tensions within an activity system cannot be understood without scrutinising what everybody is doing and what their understanding is of the object of the activity. In the current study, this involved understanding the purpose of education or why students should be in school, since different understandings may lead to contradictions between aspects of activities. The write up process was then initiated.

6.11 Trustworthiness

In qualitative studies, trustworthiness serves as an alternative concept to conventional notions used to assess quality in positivist or quantitative research (Cypress, 2017). Reliability and validity have been used to demonstrate rigour in quantitative research, but many post positivist scholars now consider trustworthiness useful to help establish rigour in qualitative research (Lincoln & Guba, 1989). Rigour is defined in positivist research as the validity and truthfulness of a study's methodology and reliability of its methods (Cypress, 2017; Singh, Mohammadnezhad & Tamani, 2022). In contrast, trustworthiness employs a set of criteria to assess the authenticity of qualitative research (Cypress, 2017; Bryman, 2016). It considers

credibility, dependability, transferability, and confirmability as an alternative criteria to quantitative concepts to claim reliability and validity (Lincoln & Guba, 1985).

Throughout the research process, the researcher aimed for trustworthiness underpinned by her theoretical positioning that there is an interplay between the person and the context, which might shape their identity and so their responses generated during to the research. Based on this premise, a conceptual framework was established from the beginning of the study and was developed through a comprehensive exploration of existing literature on the subject. Informed by this set of concepts, a strategy was established for the study's structure and for developing interview schedules that would serve as the basis for the process of data collection and analysis. The researcher and her supervisory team continually assessed the thesis write up to demonstrate consistency and coherence with this conceptual framework. A data management plan was also included.

6.11.1 Credibility

Credibility can be defined as an honest representation of a participant's reality and is aligned with internal validity in quantitative research (Guba & Lincoln, 1994; Cypress, 2017). Information and consent documents gave participants the opportunity to understand beforehand the nature of the research and what was required of them. Participants also received the interview schedules ahead of time and participants could choose to ask for clarification of questions to be asked. During data collection participants and the researcher exchanged information freely, and at no point was a particular theoretical framework, worldview, or understanding enforced (Robson, 2011). The researcher strived to provide a truthful representation of the participants' words, while recognising that it might never be completely accurate. Participants were

asked questions to explain or clarify their responses to questions used in data collection. The researcher collected both audio and video recordings of the interviews and focus group discussions, which were later transcribed. The data was interpreted in a credible manner by cross-checking the accuracy of the transcriptions. The voices of the participants were clearly demonstrated in the excerpts from the transcripts included in the thesis, and the reader can see the interpretations made by the researcher in extracts from the analysis include in Appendices.

Establishing coherence between participants' responses and the researcher's interpretation of them is necessary to demonstrate credibility (Given, 2008). Rapport was established with the participants as use of interviews and focus groups as methods meant that the researcher was present throughout the data collection process. The participants presented a version of themselves in the interviews and focus groups and were asked to provide their own meaning and perceptions on the topic of dyslexia. However, the researcher's theoretical perspective adopting the cultural-historical approach to dyslexia in conjunction with an awareness of how this might relate to identity and using activity theory affected how information was gathered and interpreted in this study (Creswell, 2003). The researcher was mindful of potential threats to credibility. The existence of video data to check on paralinguistic and nonverbal communication was also useful as it helped the researcher to transcribe accurately and interpret meaning. Finally, the researcher consistently documented in a research journal the processes used to arrive at interpretations (Robson, 2011). A detailed account was provided in the methodology section regarding data analysis and in section 7.1.1.

6.11.2 Transferability

The degree to which a research finding can be used in various contexts and studies is referred to as its transferability (Given, 2008). Thus, it is an alternative to the concepts of generalisability and external validity used in quantitative research (Guba & Lincoln, 1994; Coghlan & Brydon-Miller, 2014). The present qualitative research uses a multi-temporal case study design, which is time bound and context specific (foregrounding the dialectical relationship between the person with disability and the surrounding society) but can still be evaluated for transferability considering tentative application of this concept (Lincoln & Guba1, 1985; Miles, 2015). The findings depended on the rapport and level of comfort between the researcher and the participants, and their individual experiences, which might not be replicated beyond that context (Robson, 2011). The relevance of the findings being appropriate anywhere else is contingent on the context. Given that the reality of the participants differs and is influenced by elements that include, but are not limited to age, socio-cultural background, value system, period of time, and environment, the researcher was cautious to make claims about the applicability of the findings to other contexts (Lincoln & Guba1, 1985).

By continuously and immersively returning to the transcriptions of participants' responses to provide rich accounts, the researcher showed how participants' responses were aligned with the research concepts and that similarities could be found; however, generalisability in all contexts was not the objective. Findings however contributed to the development of theory, and this might support the understanding of the topic of dyslexia in other schools or localities (Robson, 2011).

6.11.3 Dependability

Reliability in quantitative research has a counterpart in dependability in qualitative research (Lincoln & Gubal, 1985). Dependability refers to the consistency of qualitative research results, if the study was recreated using similar (or indeed the identical) participants in similar circumstances (Qiu *et al*, 2020). A detailed section is provided in the methodology chapter to show how data was gathered in response to the particular circumstances with individuals affected by those circumstances, and their responses then analysed. To extract themes from the data, thematic analysis relied on the creation of codes. While this provided the benefit of mapping the data to enable the researcher to see patterns of similarity and difference, the code creation process inevitably involved researcher interpretation, which could have had an impact on trustworthiness in the sense of reproducibility (Kellelt, 2011); this is significant as the researcher's own understanding of the data and the phenomenon changed over time.

6.11.4 Confirmability

Confirmability can be defined as the likelihood that additional researchers can corroborate the conclusions of the research study. A researcher should demonstrate how the findings and information are derived from the data, not solely from their own thoughts about the topic (Korstjens & Moser, 2018). Different data generation methods were used to obtain data from different groups to support confirmability, namely semi-structured interviews and focus group discussions. These methods provided thick descriptions to help understand the research topic from the perspectives of different groups of participants (Jack & Raturi, 2006). In writing up the findings, data from the semi-structured interviews were used to support the

analysis of focus group discussions, and vice versa, which helped show confirmability.

In addition to the aforementioned, the researcher adopted a reflexive approach to increase awareness of the influence of assumptions and established beliefs as discussed previously. For example, a journal of daily reflection was kept during the study to record useful and relevant daily self-analyses. This helped to demonstrate confirmability by producing a physical document that showed how preconceived thoughts of the researcher were kept separate from the voices of the participants. By having this tangible record, the researcher was able to reflect on the interview notes and what occurred throughout the day regarding data collection. After every interview or focus group discussion, the investigator recorded any additional information, for example, insights or anything not in accordance with her theoretical approach (Robson, 2011). The researcher recognised her role as the only investigator and primary data collection instrument in the study (Lincoln & Guba, 1985). Concepts such as credibility, dependability, transferability, and confirmability demonstrate the genuineness of this qualitative research; reporting of the findings and associated analytic processes have been full and transparent. Therefore, this research findings can be deemed trustworthy.

6.12 Ethical considerations

Research should be conducted according to ethical principles (Pring, 2002). This includes an ethic of respect for participants or those affected by the research (BERA, 2022). The University of Plymouth Education Research Ethics Sub-Committee (EdRESC) granted ethical approval on 19 July 2019, which was amended on 30 March 2020 due to COVID-19 restrictions related to domestic fieldwork.

(Copies of these documents can be found in Appendices I & J). The next section discusses issues related to informed consent, right to withdraw, openness and honesty, protection from harm, confidentiality, debriefing, and data management.

6.12.1 Informed consent

All participants reviewed the informed consent and information sheet, to ensure that they understood the purpose of the research and their role in it, before signing without coercion (BERA, 2022). (Copies of the informed consent and information sheets are provided in Appendices A, B & C.) Participants were informed why their participation was important, what they would be asked to do, what would happen to the data given, how that data would be used, with whom it would be shared, and that it would be managed professionally and securely. Participants were informed of the use, sharing and possible secondary uses of the research data. Secondary school students received a copy of the semi-structured interview ahead of time for review and could request clarification or further explanation of these questions before engaging in the semi-structured interview. Students were advised that if they disclosed any personal information that was life threatening to them or someone else, it would be reported to the relevant authorities. If additional emotional support were needed, they would be advised of suitable sources.

University students also received a copy of the focus group questions in advance and were advised about self-disclosure and additional resources. Educators received the focus group questions in a similar period to the university students, and both groups were able to seek clarification if needed prior to their meetings with the researcher. All signed the informed consent form.

6.12.2 Right to withdraw

Participants were informed verbally and in writing that they had the right to withdraw from the research for any reason and at any time if they chose to do so and that they would not be required to explain such a decision (BERA, 2022). Participants were made aware that they had the right to not answer specific questions or ask for audio and video recording to stop. In addition, if they decided they did not want their data to be part of the study, they could request the withdrawal of that data prior to analysis. No participant requested withdrawal of their data. The researcher's and supervisors' details were provided in the information sheet, should participants want to lodge a complaint or withdraw from the study. None did so.

6.12.3 Openness and honesty

The researcher was open and honest in carrying out the study. Greene and Hogan (2006) emphasise the importance of a signed informed consent prior to data collection. The researcher ensured that a truthful informed consent was provided, signed, and returned prior to any collection of data. No form of deception was involved as it was not required as part of the study design. Openness and honesty include displaying characteristics that build good rapport such as being respectful and showing genuine interest in what participants shared (Hiller & DiLuzio, 2004).

It was recognised that some participants were classified as vulnerable children and adults due to their age and having a learning difference. Hence, efforts were made to protect participants from psychological harm during the research by including safeguarding practices in accordance with the Children and Families Act 2014 (GOV.UK, 2014), the Data Protection Act 2018 (GOV.UK, 2018), Equality Act 2010 (GOV.UK, 2013), Protection of Freedoms Act 2012 (GOV.UK, 2012), Human Rights

Act 1998 (GOV.UK, 1998) and the United Convention of the Rights of the Child 1991; Kilkelly, 2016). In addition, the researcher completed mandatory training for staff by the University of Plymouth regarding safeguarding vulnerable populations.

Participants were asked to choose a safe, comfortable space at home for semi-structured interviews and focus group sessions as all interactions were conducted online via Zoom. The researcher respected participants by actively listening to their concerns and adjusting where necessary, given the potential sensitivity of the research topic. Questions were asked in a manner that was friendly and professional, and participants could ask for questions to be repeated, clarified, or paraphrased.

University students and teachers could choose not to answer questions they were uncomfortable with and take a break or leave the focus group if they wished without explanation or judgement. All participants, including secondary school students, understood their agreement to participate in the study (BERA, 2018).

Confidentiality may be difficult to maintain within a focus group; however, the participants were encouraged not to share any information discussed beyond the group. Participants were advised that questions and discussion in the focus group might deviate slightly from the topic guide due to the dynamics of the research. Participants were notified in advance of any changes and had the option to withdraw if they were uncomfortable with the revised questions. If any participant had become distressed at interview, the session would have been immediately interrupted; and if, for example, the participant shared a personal psycho-emotional experience that caused visible emotional distress or anger, support would have been recommended (a counsellor or other professional service or given time to use their own self-care strategy). No participants experienced signs of extreme stress during data collection.

6.12.4 Confidentiality and anonymity

Building trust with participants is a key part of the research process (Lyon, Møllering and Saunders (2015). Participants were asked to identify any parts of the research that they would prefer not to participate in. Responses to the questions in the semi-structured interviews were anonymous, with pseudonyms attached to participants' responses. Although confidentiality and anonymity were difficult to maintain in focus groups, participants were encouraged not to share information from the sessions or use their true names. Participants could ask for feedback about findings, and data was only used for the purposes identified on the information sheet. Only the researcher had access to the data, which ensured that the University of Plymouth's research ethics policy was maintained. Data was stored on a password protected laptop and encrypted.

6.12.5 Debriefing

Educators and university participants will learn about the outcomes of the research by accessing the University of Plymouth Inclusion Node site: <https://www.plymouth.ac.uk/research/education/inclusion>. Secondary school students received thank you letters with a web link to the findings.

6.12.6 Data management strategy

All storage and use of transcribed data conformed to the requirements of the University of Plymouth Education Policy, the Data Protection Act (1998), the General Data Protection Regulation (GDPR, 2018), BERA guidelines (2018) and the Freedom of Information Act (2000). In addition, transcriptions of the interviews and focus groups were encoded so that no written record of a participant's name was attached to

data. The researcher ensured that all information collected was stored securely.

Moreover, any publications or content sharing related to this data will not unintentionally undermine the established privacy and anonymity. (See Appendix K for a detailed data management plan.)

Chapter 7

Structures

7 Structures

7.1 Introduction to findings

It is intended that educators should be able to use findings from this research to expand their knowledge of dyslexia and develop strategies to help create an inclusive classroom and a dyslexia- and learner-friendly environment. This will help improve the psycho-emotional experiences of secondary school students with dyslexia. The emotional impact of dyslexia on students and their experiences in the classroom is often overlooked in literature. The objective of this study has been to generate knowledge and raise awareness of such experiences, particularly in mainstream secondary classrooms.

A cultural-historical approach to dyslexia (a dialectical relationship between the individual with the disability and the surrounding society,) was adopted taking a systemic approach to the context in conjunction with awareness of how this might relate to identity. It is not just a question of having a disability and doing some tests or putting something in place. The researcher looks at how these things interact for the individual, which fits with an activity theoretical approach (culture & history) and a bio-psycho-social approach (biological & psychological entity), as it considers both the person and the context.

Based on the researcher's theoretical positioning, a multi-perspective approach was most suitable for this study. A multi-temporal case study design has been used to explore the significance of social issues based on how individuals develop meaning and perspectives. The university students represent the past, the secondary students represent the present, and educators in mainstream secondary classrooms represent the past, present, and future. This is because university students have already

completed secondary school, while secondary students are currently in secondary school. The educators in mainstream secondary classrooms have experience teaching secondary students, and they can therefore provide a valuable perspective on the topic. Data collection was conducted through semi-structured interviews and focus groups, while thematic analysis allowed the researcher to identify overarching themes within the data, and to monitor how these themes related to the research questions. This process helped the researcher make sense of the data and draw conclusions about the research topic. CHAT guided the methodology, but analysis was also influenced by the three dimensions of the IfI. During data analysis, the researcher identified three dominant themes. A summary of key findings from the three overarching themes is provided below in Table 4.

Table 4 Summary of key themes and subthemes

Theme	Subthemes	Examples
Structures	Participation tools	
	<i>Teacher led questioning</i>	“In my head, I know what is classed as a lower ability question and what is a higher ability question” (Joan, a teacher).
	Coping skills	
	<i>Active coping</i>	“If the teacher knew how the student wanted that support, it is because the student knows that the teachers recognise that they need some support” (Rowena, a TA).
	<i>Passive coping</i>	“Gaze off and then get in trouble for it” (Nate, a secondary student).
	Support staff	“You know, what I always ask them, I always say, how do you want to do this? because they are the ones that know how they want the support and that is down to them; they are the ones that know where they need to support, what area they need to support in” (Lena, a TA).

	Discriminatory & separation from peers' practices	"Normally we learn together, however, we have year nine mock exams after half term break. I will be going in a separate room to do it in the learning support room, and I will be doing it with a teacher by myself away from everyone else" (Sole, a secondary student).
	Transitioning	"There are lots of methods that schools can use to help students with support and if there is consistency across the board with how the students are being dealt with in primary school, in secondary school, in a math class or in a geography class that is key" (Joan, a teacher).
Relationships	Teachers' understanding	
	<i>Reading aloud</i>	"My maths teacher helps me quite a lot because she was my SENCO at my school" (Beth, a secondary student).
	Damaging relationships	"I stood up and she put me on spot. It was two characters speaking all at once. I found it harder because I did not have green paper, or anything highlighted" (Lily, a secondary student).
	Praise and encouragement	"Eased things out slightly for them by the support, praise and encouragement given" (Rose, a teacher).
	Rapport building	"Knowing, listening, and talking to students, knowing their abilities, will help them most" (Mandy, a teacher).
Identity	Labelling	
	<i>Constructive labelling</i>	"Dyslexia is a variation in our abilities. So, you are doing some things really good, but some things you have a drop in ability, being really poor at (Moses, a university student).
	<i>Access to support without a label</i>	"I would never force a student to accept a label, and <i>it is up to the</i> student if they share that they are dyslexic or not" (Misa, a teacher)
	Early diagnosis	"Something that I would have found helpful if somebody had explained to me, I suppose, I would have needed the proper diagnosis first, but actually explained what dyslexia meant" (Michelle, a university student).
	Developing an identity as a dyslexic student	

	<i>Formation</i>	“My parents could not give a damn if we went to school or me possibly being dyslexic” (Michelle, a university student).
	<i>Biological, environmental & peer influence</i>	“So, my mom and family from the get-go, as soon as they realised, I had something, always said if you cannot do something, just try your best” (Lily, a secondary student).
	<i>Choice of academic subjects</i>	“I had a chat with my teachers and my steaming parents. I refused to do the foundation paper hands down” (Izzy, a university student).
	<i>Self-reflection</i>	“I had no idea whether we had a SENCO. I do not think we had a school counsellor. I never met them (Sarah, a university student).

7.1.1 Introduction to structures

The first overarching theme was concerned with the interplay between structures and systems that teachers and students work within. The data shows how systems and structures might or might not create positive psycho-emotional experiences for students with dyslexia in a mainstream secondary classroom. The chapter has been informed by aspects of activity theory and considers the classroom as an activity system. As previously stated, activity systems can be defined as networks of cultural components with elaborate mediational mechanisms that influence the shared behaviours of persons inspired to accomplish some objective (Trust, 2017; see also Chapter 4).

The data highlights some of the challenges that students with dyslexia face in a traditional classroom setting regarding participation tools, such as responding to teacher led questions (see Section 5.2). This research shows from a cultural-historical and systems approach how structures can exacerbate these challenges and shape students’ experiences, for example, asking the student to respond to questions when

they are experiencing stress. The findings suggest that educators working within the system can negatively influence the encounters and identity of students with dyslexia. Although Booth and Ainscow (2011) claim it is important to create an inclusive and supportive environment in schools, this can be difficult in a system where educators and students do not understand what dyslexia is. Five subthemes identified from the data relate to the conceptual nodes of the classroom as an activity system:

participation tools, which relate to division of labour and tools; students' coping techniques, which are connected to values and tools; the role of support staff, which are linked to division of labour and tools; and separation from peers and transition, which are associated with aspects of community and are represented in Table 5 below.

Table 5 Five subthemes in the overarching theme 'Structures'

Participation tools	<ul style="list-style-type: none"> •Division of labour •Tools
Coping techniques	<ul style="list-style-type: none"> •Values •Tools
Support staff	<ul style="list-style-type: none"> •Division of Labour •Tools
Separation from peers	<ul style="list-style-type: none"> •Community
Transition	<ul style="list-style-type: none"> •Community

7.2 Participation tools

The classroom as an activity system is structured to promote student learning as its object, with the specific outcome of students' attainment of qualifications (see Section 4.4.3). Students, including students with dyslexia, actively participate in cultural/social practices, such as learning through formal education, which are designed to develop higher mental functions (Bøttcher & Dammeyer, 2012). In an

inclusive classroom, participation by students with dyslexia is a crucial aspect of both their psycho-emotional well-being and the development of these higher mental functions (Valentina, Mihić & Andreja, 2017; see Section 4.5).

7.2.1 Teacher-led questioning

In the present study, the analysis explored the use of teacher-led questioning as a teaching tool (see Section 4.4.4). Research by Bøttcher and Dammeyer (2012) suggests that students with dyslexia may not respond well to how the teacher organises learning and can find it challenging to participate in some activities without adequate support. This is especially important given the reports of low levels of training about dyslexia, and therefore how to adapt this tool for classroom use (see Section 5.7). The division of labour in this context expected students with dyslexia to answer questions set by the teacher (see Section 4.4.2). Data from the current study suggests teachers can use questioning as a specific tool to mediate students' actions towards the object and desired learning outcome. This can positively or negatively affect the psychological experiences of students with dyslexia, depending on how well staff understand or empathise with the students' points of view (see Sections 4.4.4, 5.2 & 5.7). An example of a language tool that one teacher reported to have used to act on the object was the differential use of specific types of questions. Joan (a teacher) stated:

In my head, I know what is classed as a lower ability question and what is a higher ability question. I use questions to check if the students are understanding the lesson. I try to get them involved.

This teacher used questions to check understanding and support involvement. However, a tension could occur between the object of learning and using specific questions as a tool. If teachers use this tool to assess the student's understanding,

rather than supporting or prompting students' learning, it could negatively impact their psycho-emotional experiences.

Nate (a secondary school participant) shared how he felt about teacher-led questions:

Every time I put my hand up, I think my answer might be stupid, because sometimes if I am wrong or I do not want to sound like I am ahead of myself. I prefer to say this could be wrong, but my teacher always encourages me to just say it because at the end of the day, I am not going to get everything right.

Beth (another secondary school participant) shared that:

Teachers they ask questions, but I was never made to feel left out. They would never like push, so if I said I do not know, then they would never push me to answer and watch me fail.

On the other hand, Paul (a university student participant) shared:

I think if the subject had questions with a right or wrong answer, this is more anxiety filling than if it was just asking for your opinion.

The comments from some secondary and university student participants suggest they had different mental experiences and feelings regarding the use of teacher-led questions, but the majority were negative. Some teachers were able to use this tool with more sensitivity than others to support the learning needs of students with dyslexia. From a cultural-historical perspective, it is assumed that language is the most important tool in understanding other people and that the use of language tools by students with dyslexia can affect their participation in activity and help them make sense of the world (see Section 4.4.4, and particularly Edwards, 2011; Burkitt, 2019). A teacher's subjective interpretation and knowledge of the students' experiences of the activity may influence whether a student with dyslexia understands and participates.

The majority of student participants both past and present reported they disliked answering questions aloud. For example, Nate (a secondary school participant) stated:

I find that I do not really like to answer questions like, just in case I get wrong, [...] because I feel like I might have misunderstood it. I do that quite a lot, so I just like, not answer questions.

The expectation of answering questions aloud and the value placed on participation can create a paradox. Dyslexic students' confidence in their ability to engage with the tool productively and comfortably can affect their participation in whole class activities. For example, due to previous stressful encounters of engaging with this tool, Nate stated:

I would prefer not to answer questions aloud as much as possible.

Teachers are expected to engage in whole-class teaching, but this may not be effective for students with special educational needs (SEND) who are uncomfortable answering questions aloud. Some teachers find ways to adapt whole-class teaching to meet the needs of these students, such as providing them with opportunities to answer questions in small groups or individually (although this depends on the level of training for support for students with dyslexia; see Section 5.7). However, the basic idea of whole-class teaching is not likely to be effective for all students with SEND.

Nate (a secondary school participant) stated:

I think this part of it as well, while you are panicking about what you have got to say and you know it is not just how to spell words, but sometimes how to say words, you might not understand the meaning of them, maybe you cannot pronounce them.

Data from the present study suggests Nate's engagement with this tool was not voluntary. There was an expectation of a response to the teachers' questions, regardless of the potential cognitive implications on his self-esteem and confidence.

Similarly, other secondary student participants shared that they were also under pressure to answer questions aloud, which affected their stress level in different ways.

Cath (a university student) commented:

I do remember thinking I do not want to say what I am thinking because I am worried that I am thinking something completely different from everybody else in the class.

Dyslexic students both past and present may be hesitant to engage in activities where they appear different from their classmates, or which are likely to affect their self-esteem (which will be discussed further in Chapter 9). Moses (a university student) stated he was not only nervous but also that his bodily reactions revealed that he also found the activity stressful. He stated:

I spelt Wednesday incorrect just the way I said it and I remember everyone laughing in the class, you know, and I remember rubbing off the board and re-wrote Wednesday like six seven times [...], I was like sweating.

Similar to secondary school students, university students remembered feeling anxious and concerned when asked to answer questions by the teacher. Enduring students with dyslexia reactions to participating in certain aspects of classroom activities has not changed over the years, as both past and present student participants had similar negative emotional experiences to teacher-led questioning, which suggests the system has not changed significantly to make classrooms more inclusive for students with dyslexia.

7.3 Coping skills

7.3.1 Active coping

Based on data analysis, the term ‘active coping’ was formed. Active coping is based on the student with dyslexia ability to produce their own coping strategy to mitigate the challenges of participating in certain learning activities. Michelle

reported asking her classmate to help find the portion of text she should read and practised until it was her turn. These strategies (e.g., asking a peer for help with a learning task) are tools acting on the object. Michelle's (a university student participant) coping techniques were based on her socio-cultural background, knowing that she could be dyslexic but without knowing for sure at that time in mainstream secondary school. Michelle's active coping strategies may have been different had she attended school today and been officially diagnosed as dyslexic. Although this strategy may have helped Michelle, she risked missing the object of learning. If the teacher had a supportive relationship with Michelle and was trying to promote an inclusive learning environment, she might have recognised that the learning tools caused anxiety and made the necessary adjustments to effectively support her.

Rowena (a TA) stated:

If the teacher knew how the student wanted that support, it is because the student knows that the teachers recognise that they need some support. It is then up to the student to say yes, this is how I want it and then you are building that relationship, you know, coming back at the end of it saying, did you understand that? Do you think you need some more support? It does help, especially building up relationships and getting the support they need if they tell us.

Teacher participants' comments indicate that students with dyslexia can become self-advocates. Self-advocacy can help students with dyslexia create a more positive psycho-emotional experience for themselves, while shaping their personality.

Dyslexic students' self-advocacy requires a relationship between teacher and student built on trust, understanding, active listening and effective communication skills, foregrounding the dialectical relationship between the person with disability and the surrounding society and its impact on identity.

By interacting with peers, students with dyslexia can learn and build relationship management skills, which can improve their active coping skills. Social interaction also plays a key role in learning and academic success. Within the activity system, people might cooperate when they are part of the same community, sharing values and understanding of each other's roles (see Section 4.4.2, and particularly Stetsenko, 2017). Dyslexic students have unique experiences that both shape and are shaped by their own perspectives, as well as the perspectives of and interactions with others in their environment. Joan (a teacher participant) stated that working with peers could help students with dyslexia develop active coping skills, such as increased confidence, showing how sensitivity to the needs of individual students can increase inclusion (see Section 5.2). She stated:

Working in pairs is great. It gives students some more confidence to know that their answers can be discussed sort of internally before they are spread across to the class.

The current research suggests that collaborating in group/pair work with peers has positive benefits and can be used most of the time in mainstream secondary classrooms to support beneficial experiences among students with dyslexia.

Interactions with peers may help students with dyslexia develop active coping skills. By engaging in open dialogue to share their perspective on the learning task, students with dyslexia can build confidence and improve their self-esteem. Tools that promote peer interactions may also improve students' academic and social skills if the methods are structured. Furthermore, strategies that encourage peer interaction may motivate students with dyslexia to take a more active lead in their own learning under the supervision of the teacher. In groups, students with dyslexia can form friendships and bonds with their peers who have a similar learning challenge. Lily (a secondary student) liked interacting with her peers because:

I am not just working with myself; I think I like working with my friends normally in groups, because then they are helping me, and we all understand the same things.

Innovative and collaborative approaches that use peer engagement learning tools may be extremely beneficial in supporting activities that promote psychological resilience. However, the learning environment will determine how peer engagement interactions are maintained.

The majority of both present and past student participants reported that group discussions with peers that have similar learning issues helped to expand their self-understanding and develop or improve their coping strategies. Danny (a university student) stated:

I would have wanted to have someone to talk to who had knowledge of learning differences that did not necessarily need to be an adult, even like a group of students going through the same sort of things in school.

Adopting a cultural-historical perspective, complex emotional meanings derive from engagement in collective social experiences and people develop their thinking through rational thought-provoking engagements and by incorporating ideas from their community (Vygotsky, 1991; Edwards, 2007). The current study suggests that social engagements can be encouraged in a mainstream secondary classroom if the school wants to adopt an inclusive school ethos. A conflict may take place, however, if the value of inclusivity and the object of academic performance conflict. Some teachers might emphasise achieving individual academic targets, rather than inclusive practices that contribute to students with dyslexia psycho-emotional health and social engagement, for example, group discussions. The majority of student participants, both past and current, highlighted the importance of group discussions with peers to help build stable relationships and improve their active coping skills. This type of

social interaction can create useful experiences and influence students with dyslexia self-development by fostering a sense of community. Lily (a secondary student) reported the value of friendships and inclusivity practices within her school community. She stated:

I would have liked group discussions with my (non-dyslexic) friends to talk about dyslexia, so they could be educated about my learning difference and understand me better. Most of my peers did not know much about dyslexia.

Lily continued:

Group discussions, I think it would be helpful, because like, not many people know about dyslexia that much like all my friends know. People know about it, but they did not know much about it, they know I have it, but they do not know, what it is and stuff like that, so I think it would be good to educate them.

In comments like these made by secondary school participants, it is suggested that social engagement could help them in understanding themselves and developing active coping skills as well as reduce some of the barriers set up by the system to disadvantage them. Group discussions that aim to foster pragmatic holistic self-development experiences can be encouraged as a tool used in the activity system.

7.3.2 Passive coping

From a cultural-historical perspective, each person is unique; no two people think the same, and even though they may undergo the same situation, their processes or experiences may be different. This is because each person has their own unique set of experiences, knowledge, and perspectives, which shape how they perceive and respond to the world (see Section 4.5; particularly Holland & Lave, 2009). During data analysis, the term passive coping was created; again, this is different from Alexander-Passe's (2006) definition of avoidance-based coping as a strategy to "deflect attention from low academic ability and under-performance", and which

“teachers see [...] very differently, with perceptions such as laziness and lack of parental support” (p. 259). The current study suggests that passive tools are like active coping strategies as they are both used to mitigate students with dyslexia learning difference but may differ in terms of outcome and are not perceived by teachers as indicative of students’ lethargy or lack of parental support. Two passive tools identified by participants across the data were daydreaming and switching off. Comments from Nate, Lily and Rose illustrate use of this tool. Nate (secondary student) recalled that if he were not engaged in the learning activity, he would:

Gaze off and then get in trouble for it.

Lily (secondary student) described how she would daydream if not engaged in the teaching activity:

Daydreaming yeah, I will sit in English class, constant daydreamer.

It is likely that not engaging in the learning activity risks an adverse effect on shaping students with dyslexia behaviour and educational outcomes. Rose (a teacher) recognised that students with dyslexia may use:

A lot of avoidance strategies, which also can have a knock-on effect on behaviour, sometimes not always, but depends on the student.

This comment is consistent with Dahle, Knivsberg and Andreassen (2011), who suggest that when students with dyslexia attempt to avoid perceived challenging learning activities, they may engage in non-acceptable behaviours that cause trouble with the teacher or school. Such problems with the school may negatively impact students with dyslexia emotional state, which could in turn affect their personality (see Sections 3.2 & 4.5).

7.4 Support staff

Teaching assistants can also play a vital role in the way classrooms are organised (see Section 5.3). Lena (a TA) stated:

You know, what I always ask them, I always say, how do you want to do this?, because they are the ones that know how they want the support and that is down to them; they are the ones that know where they need to support, what area they need to support in.

A TAs' understanding of their role can affect students with dyslexia psycho-emotional experiences, as such comments demonstrate. TA participants recognised the importance of their role in the division of labour as providing needed support to students with dyslexia. For Lena and the other TAs, their verbal and nonverbal reactions indicated they were happy when sharing about their role as TA. When Lena shared that she always asks students with dyslexia how they want to be supported, the other TAs nodded or said yes to this comment. It is likely that by including students with dyslexia contributions in their own support with the TAs, it can build valuable psychological experiences for students with dyslexia, especially if TAs employ strategies that use consistent and adequate tools to build a supportive relationship. Much of the support for students with SEND (including dyslexia) in today's mainstream secondary classrooms can be provided by TAs (DfE, 2017). A school's use of TAs may depend on financial considerations and how they wish to use them (see Section 2.4).

In the past, some university students did not know what support services were available at their school to help them with their dyslexia, including access to a TA.

David (a university student) said:

I have no idea whether we had a TA, SENCO, or I do not think we had a school counsellor. I never met them. We did not have a learning support department at all. It was like there was no obvious place to go to say that I was struggling, or you know, to have any help offered.

Moses (another university student) said:

Back then I wanted any emotional or learning support but we did not have things like that anyway.

On the contrary, all present-day secondary student participants had access to TAs and understood the role of TAs as an additional resource to support their attainment of learning outcomes. However, for varied reasons, they did not want their help, which questions whether TAs are seen as human tools or subjects who are a part of the division of labour within the activity system (see Sections 4.4.4 & 4.4.2). Amoy (a secondary student) spoke of feeling conspicuous:

I just do not want a teaching assistant with me all the time. I would feel like everyone is looking at me, I would not like it.

Lily (a secondary student) wanted to succeed through her own efforts:

I would prefer to work by myself and like try my hardest, someone helping me all the time, no.

According to the DfE (2017), learners with varied SEND, including dyslexia, are increasingly supported via TAs (see Section 5.3). However, data from the current study confirms that participants valued their independence, self-determination, and self-reliance more than having TA support. Tools used by TAs in mainstream secondary classrooms may vary according to the object, rules, and values of the activity system. Rowena (a TA participant working with both dyslexic and non-dyslexic students) described her strategy of not singling out those with special needs:

I go around the classroom, and I help everybody. I float around, and I will even help the most able-bodied student. I am just pointing out little things in their work that they might need to improve.

Comments from TAs, such as this, point to a division of labour where they offer general support. Rowena's approach was likely to have been created by the object, rules, and values of the activity system but also by years of experience in supporting students with dyslexia.

University and secondary student participants preferred not to be singled out for help, but that values related to inclusive practices are promoted by both teacher and TA. Rowena (a TA) commented that students with dyslexia:

Do not want a TA to take them on one side and work with them, when they want to be part of the group in the class.

TAs' comments like these resonate with Giangreco, Suter, and Doyle's (2010) suggestion that time spent with them should not reduce curriculum learning time in the classroom (see Section 5.3). Mainstream secondary classrooms can include TAs and teachers who build rapport and relationships with dyslexic students. In such an environment, it is possible to offer students with dyslexia choices regarding tools and respond to how they wish to be supported, thereby fostering an inclusive ethos.

Rowena (a TA) suggested to incorporate such inclusive practices:

When I first meet a student, I say, where do you think your difficulties are? How would you like me to work with you? Would you like me to sit with you or sit in a group? Or make sure I sit away? Come over and make sure you understand and do that with other people, so that you are not the only one and walk away? And then keep coming back? It is down to the students to say what they want, and how they want to help.

Chapter eight will emphasise the importance of teacher-student rapport, noting the consequent benefits to their learning and emotional experiences. TAs can also build relationships with dyslexic students and help form a clear dyslexic identity and alleviate some of the complexities relating to this learning difference.

7.5 Discriminatory and separation from peers' practices

The current research defines discrimination, for example, as a process in which a student is denied the opportunity to engage with peers in certain activities due to their learning difference. The majority of university student participants were aware of practices at their mainstream secondary school that could be described as discriminatory. Michelle (a university student) stated she was placed in a lower set during foreign language classes:

So, when everybody else in my year was doing MFL, I went to what they called the learning pod, where we had basically extra English and Maths and we had about six of us in my group and we basically just did comprehensions, spelling and writing maths over and over and over again two hours a week. It was very tedious, that was the only way to get it basically drilled into our heads. I probably played up more than I should have.

University students' comments such as the above suggested they had no autonomy regarding their engagement in practices that influenced school performance, including not being able to choose subjects (which will be discussed further in chapter 9).

Michelle reported that she was denied the opportunity to learn a MFL. Instead, she received extra tuition in Maths and English due to the overriding rule of maximising scores in English and Maths. Dyslexic students may find it challenging to achieve high grades in MFLs in most mainstream secondary classrooms (see Section 5.5).

However, Michelle did not find it difficult to learn German beyond school; she had visited Germany and could identify with German culture. The value placed on student participation and voice, here, contradicts the object of the school (optimising GCSE scores), thereby limiting Michelle's foreign language study, and undermining her sense of autonomy. As before, some students with dyslexia reported using active coping skills, while others used passive coping skills in response to certain learning

practices. Michelle ‘played up’ in class to relieve her boredom, which likely invited negative reactions from her teachers and a breakdown in the teacher-student relationship. The way students with dyslexia give meaning to their experience in a mainstream secondary classroom can mediate their emotion, cognition, and motivation.

All the secondary and university student participants were aware of practices which separated them from peers at their school but being separated did not always create negative psycho-emotional experiences. Michelle reflected on her experiences as a former dyslexic student in mainstream secondary school who encountered a possible discriminatory practice being denied the opportunity to study MFL, while Nate and Lily reported their experiences of being separated from peers as present-day students. Nate reported being happy to be separated from his classmates as a provision of reasonable adjustment for his mock exams. Sole stated:

Normally we learn together, however, we have year nine mock exams after half term break. I will be going in a separate room to do it in the learning support room, and I will be doing it with a teacher by myself away from everyone else.

Nate and some other secondary student participants recognised the benefits of being separated from classmates on several counts. Such practices can be most effective when they create constructive psycho-emotional encounters for students with dyslexia and are not set up as an exclusion practice. Sole added:

I think it is better, as I will get the support that I need, and I think it will be easier to concentrate and to get more work done.

Similar to Sole, Lily commented on her initial years being separated from peers in her mainstream secondary classroom. She stated:

I have had that for reading in different classes in year nine, then we stopped it. We would read in a group with people, but I never had a separate class for specific subjects, just the reading class for people like me with dyslexia.

Lily reported that her reading skills improved after she was separated from her peers to receive additional reading support, which had helped her academically and shaped her towards a more positive identity. The present study confirms that schools may foster a sense of community among students with similar learning difficulties through targeted practices involving separation from peers to meet specific goals. Some secondary student participants reported feeling more included in core lessons with peers after improving their reading skills. A distinction between temporary and permanent separation from peers' practices can be linked to the values and object of the school or the subject (teacher). Lily and Nate experienced temporary separation from peers' practices as part of the schools' inclusivity ethos. Separation from peers' practices reported by most of the present-day participants appeared to have an end point and were discontinued once the learning goals were achieved.

7.6 Transitioning

Teacher and student participants in the current study did not report any specific strategies to support the psycho-emotional resilience of students with dyslexia transitioning from past or present primary to mainstream secondary school, as they lacked an awareness of those plans. However, all the participants suggested schools should strive to be as consistent as possible when supporting students with dyslexia. Schools are likely to have their own rules and values in relation to students with dyslexia transitioning from primary to secondary school, which are related to the object of the school and how they understand the object of the receiving school. These strategies might be guided by local authorities, which have their own transition

guidelines and recommendations for tools to support students with or without SEND this was partly important during COVID-19 (see Section 5.8 & 5.9, particularly Evangelou *et al.*, 2008). There seems to be a lack of uniformity in strategies between the receiving school and the sending school, regardless of local authority guidelines or recommendations. The current research suggests the importance of consistency in tools used to support students with dyslexia transition from primary to secondary mainstream secondary school (see Section 5.9). Joan (a mainstream secondary teacher) emphasised the importance of consistency in teaching strategies:

There are lots of methods that schools can use to help students with support and if there is consistency across the board with how the students are being dealt with in primary school, in secondary school, in a math class or in a geography class that is key.

Even though comments such as this from teacher participants recommended consistency when supporting students with dyslexia transitioning, it is possible that not all schools will have the necessary resources or knowledge to ensure smooth transitions. All teacher participants from both the focus group and semi-structured interviews stated that it is important that schools and teachers have the resources needed to support a smooth transition for students with dyslexia. The majority of teacher participants reported not receiving much transition information about students with dyslexia, and the majority of student participants reported that information from primary schools was not passed on to their secondary school and the level of support from teachers was inconsistent. Izzy (a university student) stated that although she was diagnosed as dyslexic in primary school, it was not recorded on her records in secondary school, and she received minimal support. She stated:

I kept fighting for it; finally in year 13, I got an assessment and then that is finally when they were like, yeah, definitely dyslexic.

No current or past student participant reported that their mental state or self-esteem in primary school were negatively affected, nor did any report receiving support for psychological problems. Difficulties may have been more easily responded to in the primary classrooms because of the different style of teacher-student relationships (this will be discussed further in the next chapter), accounting for student participants not recollecting problems. The majority, however, reported damaging psycho-emotional and personality issues in secondary school. Nevertheless, despite lacking preparation for the transition, some reported building supportive relationships with their teachers and developing their own coping skills to deal with both the transition and identity issues and to mitigate the challenges related to their learning differences in their classroom. Chapter 8 shows how both relationships and structures can impact on the identity of students with dyslexia in mainstream secondary classrooms.

7.7 Chapter summary

The ways in which teachers and students interact with each other within the system may differ. The perceptions, beliefs and actions of individuals can affect interactions within an activity system (See section 4.5). While teachers have their own opinions about the benefits of asking students with dyslexia questions aloud, it is the viewpoint of the student with dyslexia that most influences their mental welfare and academic performance. The majority of students with dyslexia disliked answering questions aloud, although their response to this depended on the teacher-student relationship and the selected participation tool. Moreover, subjective beliefs of students with dyslexia about participation tools can impact their identity. Self-esteem beliefs can affect students with dyslexia confidence and participation in class.

Therefore, the effectiveness of the participation tool used to engage students with

dyslexia should be considered to ensure their use encourages a healthy mental state. Psychological and physical reactions of students with dyslexia to answering questions aloud varied, but such reactions should be recognised and addressed when trying to engage students with dyslexia in whole class teaching in mainstream secondary classrooms. This underlines the importance of teacher training to adequately support students with dyslexia (see Section 5.7).

Discrimination, separation from peers, and transition practices can affect how students with dyslexia experience school and influence their overall mental health. This prompts careful consideration of their role and function in mainstream secondary schools. In addition to this, consistency during students with dyslexia transition from primary to secondary school is important, but consideration of classrooms as activity systems shows transitions between them depend on various aspects of these systems; transitions can be shaped by the object of the school as a whole and what is considered necessary to support students with dyslexia within the school.

Dyslexic students' subjective viewpoints about the benefits or usefulness of supportive staff as educational tools may affect how students with dyslexia interact with them. The majority of students with dyslexia did not want help from TAs and most reported that their own coping skills and individualised support from TAs could contrarily affect their individuality. The tools and strategies that TAs use may vary depending on the goals, rules and values embedded in each activity system; students' comments show, however, that opportunities to enhance positive relationships with educators and dyslexic students when using these tools are critical in promoting an inclusive learning setting. In the following section, we will look in more depth at the importance of relationships for students with dyslexia in the classroom.

Chapter 8

Relationships

8 Relationships

8.1 Introduction

Thinking about the classroom as an activity system is not enough in itself; the findings show how relationships, and the development of identity are shaped over time by the constraints and affordances of the particular context. Themes relating to relationships were identified throughout the analysis of interview and focus group data. From a cultural-historical perspective the process of knowing is affected by interaction with other people and mediated by community and culture (Asl, 2015; see Sections 4.4.2 & 4.5). Multiple perspectives at different points in time offered a rich understanding of the dyslexia-in-context. The researcher posits an interplay between the surrounding society, both people and structures, and the disabled individual. Relationships play a key role in this interaction as it can be premised on “intention and purpose that are precognitive as well as cognitive and includes, at a minimum, one teacher and one student in dialogic communication related to some specifiable purpose” (Biesta & Stengel, 2016, p. 64). The second overarching theme therefore examines the relationship between teachers and students in mainstream secondary classrooms

The data suggests teachers may not fully understand dyslexia, which can have a negative impact on relationships and the purpose of teaching (see Sections 5.7 & 7.2.1). Students with dyslexia, commenting on both past and present, have shared how they have managed relationships and how this affected their coping skills and mental experiences in their mainstream secondary classrooms. The findings propose that teachers who do not understand dyslexia may be unable to provide the necessary support for students with dyslexia. This can lead to further problems in school

(daydreaming; switching off; see Section 7.3.2). Also, in relationships (self-esteem issues; see Sections 7.2.1 & 7.3.1). Students with dyslexia also shared how they have managed relationships in their mainstream secondary classrooms. Participants suggested it is important to have understanding as well as support from teachers and classmates. They also said that it is important to advocate for themselves and to be able to ask for help when they need it, as dyslexia was having a significant impact on their lives. With understanding and support, students with dyslexia say they can have better experiences in school. Five of the strongest subthemes identified within the overarching relationship theme, namely teachers' understanding, damaging relationships, praise, and encouragement, building rapport, and coping strategies, are explored below.

8.2 Teachers' understanding

Dyslexic student participants perceived teachers' understanding of them as particularly important. For example, Beth (a secondary student) was more open and shared her experience about how her teacher demonstrated understanding by engaging in activities such as following up and ongoing discussions. Beth stated:

My maths teacher helps me quite a lot because she was my SENCO at my school. So, she knows that I got dyslexia, so she always tried to check up on me and help me. This is most important than anything else.

Some teachers may feel under a moral or legal obligation to support students with dyslexia because of their professional duties and responsibilities, while others may choose to support students based on their socio-cultural background and personal experience, which can potentially influence the inclusivity of the classroom environment (see Section 5.2; Georgeson (2009)). The current study suggests that productive engagements can be created for students with dyslexia if they believe the

teachers use appropriate supportive tools based on the teachers' understanding of them, rather than their sense of responsibility as a teacher.

The present study also suggests that teachers' understanding, and knowledge of dyslexia can affect their classroom management, interaction and strategies used with students, therefore teacher training and dyslexia awareness initiatives are important (see Sections 5.2, 5.6 & 5.7). For example, Rose (a mainstream secondary teacher) explained how she had built up knowledge from training in earlier employment as a TA:

Some of my personal ways of dealing with things I bring into my lessons. So part of my experience influences some of my lessons, but also when I was a special education TA for five years, I did teaching in that and we had courses on different disabilities. We had courses on autism, we had courses on dyslexia, we had courses on dyscalculia and we had so many different courses and different tips and ways of doing things. There is always different ways to get around things and different strategies to help different abilities and different sort of disabilities that sort of thing. This helped me to work well with these students.

Comments like these from teacher participants suggests they made a conscious and deliberate effort to develop and acquire the kind of knowledge that could be used to effectively support not only students with dyslexia but other students with SEND. Knowledge can be acquired in different ways through formal learning via courses and informally through experiences working with students with dyslexia. However, the application of what is learnt and put into practice can affect the interactions and relationships with students with dyslexia.

Although all teachers in this study recognised the importance of understanding, their knowledge and skill supporting students with dyslexia varied. Not all teachers had as much experience as Rose of working with dyslexic students or had the same approach to using supportive strategies for example pre-teaching or

offering catch up lessons (see Sections 5.2, 5.6 & 5.7). Dyslexic students are likely to have individual learning differences, so supportive tools may need to be tailored to adequately meet the needs of these learners. From an activity systems perspective, tools can also change depending on the societal or cultural context in which they are adopted (see Section 4.4.4; particularly Foot, 2014).

The majority of educator participants in the current study confirmed that training and experience had had an impact on how they view students with dyslexia (see Sections 5.6 & 5.7). For example, Misa (a TA) stated:

I think, for me, I do obviously do our guided CPD study but personally I am quite driven by self-directed study, so if I find a student has got a specific need, I will research that myself and then see if what I learn can transfer into real life for that student and I will be honest and say, I do not think there is enough training out there not just in our establishment, in general. However, I feel like that focus might be shifting because it is becoming more high profile. It is becoming more in the limelight a bit more. So, I think our focus and our, our desire to want to learn more is coming.

Misa attributed her knowledge to her ability to continually teach herself and engage in self-reflection to understand the needs of students. All of the teacher participants in the current research stated and agreed with each other that they wanted more professional development, indicating that they lacked some knowledge and understanding in supporting students with learning differences, including dyslexia, hence the importance of teacher training (see Section 5.7). A lack of knowledge about dyslexia may lead to misunderstandings between teachers and students, leading to the breakdown of a supportive relationship (see Sections 5.2, 5.3 & 5.5). A further explanation is that teachers' understanding of students with dyslexia can also affect the effectiveness of the tools chosen to meet learning goals. That is, if the teacher does not understand how to best support students with dyslexia, the tools learnt by

observing, listening, and becoming involved in group activities may have little or no impact on the learning of students with dyslexia (see Sections 5.2 & 4.4.4).

Teachers' beliefs, attitudes and knowledge regarding inclusive practices are likely to reflect their socio-cultural backgrounds and affect their views on diversity (including dyslexia), potentially presenting barriers to creating an inclusive classroom (see Sections 4.1, 5.5 & particularly Ainscow, Booth & Dyson, 2006; Florian & Spratt, 2013). Jane (a teacher) stated:

You also have parents who would like to sometimes give the diagnosis of dyslexia to their children, when they do not have dyslexia, which is quite an interesting phenomenon when it is clear they do not have that at all. I think lots of parents think that if there is a learning difficulty with their child, the first one they will try and want to plump for is dyslexia.

There is little evidence linking dyslexia to intelligence and the motivation for parents to get a confirmed diagnosis for their child may vary (see Sections 2.3 & 2.5).

Comments like these from teachers suggest that parents may view dyslexia as a more acceptable reason for their child's learning differences, thereby preferring this diagnosis; there is a contradiction here between tools such as formal diagnosis and values pertaining to parental involvement and possibly with understandings of dyslexia in the wider community.

8.2.1 Reading aloud

Michelle (a university student participant) recounted how she had to participate in reading aloud, whether she liked it or not, and her teacher continued with the lesson despite her challenges. She said:

When the teachers say, we have got to read these things aloud and each person was going to read a few sentences, it was really daunting, because you literally had to sit there. I would count everyone before me so that I can count how many? Like whereabouts? Which bit do I have to learn, while all these people are talking? We have to be really quick about this because we need to do this.

I have to count to try and find this one sentence or whatever it is I have got to say, so I can practise it. Then I say whatever it is I could translate. That is what I spend my time doing, while I am waiting for mine to come round and it was such an anxiety filled time. It was really awful; I just absolutely hated that part.

Accounts such as these from university students show how reading aloud (as a tool to support learning) had become the object for this student – the thing they are working on and finding ways to get through for their own sake. A tension can ensue between the object of learning tasks to achieve good scores and the value placed on participation. Michelle spent considerable time experiencing stress during this activity, as she practised her portion of reading. Reading aloud as a learning tool used by the teacher was in direct conflict with how Michelle viewed it. There is no single set of criteria for assessing reading ability because reading is a multifaceted, context-dependent, and constantly changing process (see Section 2.5; particularly Catts, 2018; Cilibrasi, & Tsimpli, 2020). However, when teachers do not have a good understanding of dyslexia, there can be tensions between the object and tools for learning and it can shape participation by students with dyslexia in the activity.

The majority of student participants both past and present reported negative experiences reading out loud, which impacted their relationship with their teacher.

Moses (a university student participant) stated:

I guess some teachers just do not care. I read and I struggle. I am forced to read on purpose, I do not like reading aloud.

Moses' comment, along with other university and secondary students, underscored the complexity of teacher-student relationships and how these interactions can affect behaviour, attitudes, and learning. Stressful experiences when reading out loud can impact the relationship between students with dyslexia and their teachers causing

these students to have mental blocks. For example, David (a university student) stated:

I have put a mental block in place for most of this, including reading out loud. I would rather if I can avoid it. I would rather not go back in memory.

The focus group video recording showed David becoming visibly upset when making this statement, suggesting a possible previous traumatic encounter reading aloud in mainstream secondary school. The researcher supported David by asking him if he wanted a break to which he answered no and he continued to share his experience.

David reported:

Mental blocks helped me in the classroom somewhat.

Like David, Moses also had mental blocks to cope with unfavourable experiences due to his learning difference and relationships with particular teachers, which affected his sense of self, especially when he had to demonstrate and give a response in front of the whole class on certain tasks. Mills (2018) suggests students with dyslexia may have mental blocks because of undesirable incidents affecting their self-esteem, especially if they have difficulty engaging in learning activities as suggested by biological and psychological/cognitive models (see Section, 3.2). Rowena (a TA) stated she was able to recognise mental blocks among some of his students. She commented:

Spelling goes to a mental block, or reading or writing, because if they read, they will pronounce the words wrong, so they do not want to read aloud and then it just stops them wanting to learn.

Opting out can be used as an active coping strategy to mitigate challenges of being dyslexic in mainstream secondary schools.

Lily, a present-day student with dyslexia, reported that, even though reading aloud was something she hated, she could not avoid participating in that activity. Lily

was a mature year 13 student who did well in her GCSEs. However, she reported a difficult ordeal in GCSE English:

I had to read aloud, and I hated it, because I could not follow the lines and I could not like spell out words, so I absolutely hated it, but I still participated.

It was unclear whether Lily's teacher was aware she was having challenges or facing any anxiety, but secondary school students reported having similar occurrences. Lily also questioned another teacher's understanding, as she laughed and ridiculed her as she tried to read aloud and referred to her as special when she asked for green paper, which is also mentioned in the next section on damaging relationships. Dyslexic students' values related to participation can stem from how they view themselves in relation to the activity and learning environment (see Section 4.5).

The relationship between students with dyslexia and their peers, as well as their age, could affect how they read aloud. For example, secondary school participant Nate reported he could now continue his participation reading aloud, despite its balky effect, whereas he would have withdrawn from the activity when younger – and not looking at other people seemed to help:

I feel anxious if there is a complicated word, but I just keep reading it. I am not really looking at other people while I am reading it.

Amoy (secondary school student) provided another example, stated:

In my year seven when I first came to school, I would not read out in front of anyone, but now I am going into year 11, I feel way more confident.

Age and maturity may be crucial factors in fostering relationships between students with dyslexia, their peers, and their teachers, based on comments like these from some secondary school participants. However, much has not changed in how the past and current students with dyslexia read aloud, implying that difference and diversity issues are not fully addressed in current mainstream secondary classrooms.

8.3 Damaging relationships

In the absence of teachers' understanding, damaging relationships, incongruence or negative experiences can occur such as direct psycho-emotional disablism (see Section 5.2). While students were concerned about teachers' understanding and knowledge of dyslexia, they can also be affected by teachers' attitudes that do not promote inclusivity in general (see Section 5.2). For example, Lily (a secondary student) and other students questioned their teacher's understanding. Lily reported:

Obviously, she did not understand I was dyslexic. I went up to her and told her I needed green paper because it was a long speech. She was not okay with that, she went, you are not special, are you? And I was like, excuse me dear if that is going to help me and you want me to do your work? So, I went off crying. It upset me because I do not know how old you are, but you are calling the kids special. You are obviously not good at your job if you are going to call kids special. I am not special; I just find it harder.

The present study suggests that Lily and other secondary students may have experienced dilemmas of difference, as they wanted special treatment but objected to the label 'special', which may have the potential to cause tension between students with dyslexia and the teacher. Secondary school participants may have expected their teacher to display certain attributes as a supportive teacher, and when it was lacking, it caused a damaging response. Gourneau's (2005) empirical study examined teachers' experiences and suggested that kindness is one of the five attitudes of an effective teacher. Kindness, however, is a social construct that can be linked to subjective meanings and definitions based on educator experiences and training (see Section 5.2 and 5.7). Lily's teacher in this instance appeared to lack an understanding of the possible biological and cognitive differences associated with dyslexia and helpful tools (e.g., green paper) that could be used in mainstream secondary classrooms to

support students with dyslexia. Psycho-emotional experiences such as these for secondary student participants may occur at a time when their present learning environment was likely to build their identity, as this was during the adolescence stage of development. During this stage self-image and how one is perceived in relation to peers is important, which will be discussed further in chapter nine. The teacher's use of the word 'special', as in Special Educational Needs, in front of Lily's classmates caused a damaging response. Warnock and Norwich (2010) argue that the term 'special educational needs' is problematic in terms of its conceptualisation and classification of students, as it may be viewed as complex and ambiguous (see Section 2.2). The term was used by Warnock (Warnock & Norwich, 2010) to reduce the stigma of earlier terminologies, but it now risks stigmatisation and other psychological issues such as low self-esteem and lack of confidence.

The term 'special' may cause students with dyslexia to feel stigmatised and less included in their classroom, which could lead to a further breakdown of the relationship between the teacher and students with dyslexia. In Lily's case, adequate support would have involved more than providing green paper. Knowledge and understanding of students with dyslexia abilities or needs was more pertinent. The likelihood of a more supportive relationship would have been increased if the teacher had used appropriate and effective tools (see Section 5.2). Significant here is not only the biological or cognitive learning difference but also the incongruence between Lily's psycho-emotional well-being and the teacher's use of pedagogic strategies related to her own socio-cultural background. Supportive interactions between students with dyslexia and teachers can help these students feel included and participate more while engaging in learning activities in mainstream secondary classrooms, thereby creating an inclusive environment (see Section 5.4).

Lily recounted another situation where her teacher ridiculed her when struggling to read aloud in class and said she did not put a mental block on this experience like other student participants mentioned earlier. She openly shared:

I stood up and she put me on spot. It was two characters speaking all at once. I found it harder because I did not have green paper, or anything highlighted. I got the words mixed up and I could not see properly. She was there laughing. I was like, I do what you want me to do. I just find it harder, and I would say one word and I will get it wrong, and she said no, no, she kept doing that to me – it went on for like five minutes.

Ridicule and stigma may go beyond lack of understanding and knowledge and be considered bullying. There are clear power issues here before the ridicule; the student is expected to do what the teacher wants. Lily's case was not associated with any reasonable disciplinary action, but rather, the teacher used her authority to intimidate Lily as part of her learning strategy and therefore as a barrier in creating an inclusive classroom (see Sections 5.2 & 5.5). Both university and secondary participants reported that bullying is likely to increase the likelihood of them having a mental problem.

While humour – or 'banter' – can often be used to lighten the mood and soften criticism, the use of humour as a tool in the classroom created negative experiences, as reported by some of the participants (see Sections 5.2 & 5.5). The present study confirms this, as in Lily's case, it might have been intended to distract from Lily's difficulty but suggested a lack of professional knowledge about interacting with or supporting students with dyslexia, causing an unfavourable response, again reinforcing the importance of teacher training (see Sections 5.2 & 5.7). It is therefore important to recognise that teachers' inappropriate responses or actions can in the negative way impact the learning of students with dyslexia and create complexities with their identity and mental health.

8.4 Praise and encouragement

The relationships between students with dyslexia and their teachers can likely affect how open these students are to them. Praise and encouragement are well known strategies to encourage all students. The current study defines praise as a relational pedagogic strategy, conditional or unconditional, that can be used to develop a supportive relationship between teacher and students with dyslexia, while encouragement is described as a motivational tool to support students' development. A strong theme throughout the data was that teachers used praise and encouragement to create supportive relationships in a mainstream secondary classroom. For example, Rose (a teacher) stated, in anticipation of students with dyslexia challenges, she:

Eased things out slightly for them by the support, praise and encouragement given.

Candy (a teacher) characterised students with dyslexia as dreading failure and used encouragement to support student when things went wrong. She stated:

Students with dyslexia have a fear of failure, so I make sure that if they do something wrong, I am still encouraging them. You know, I say it does not matter, it is absolutely fine.

Rowena (a TA) stated she constantly used praise for effort and constant encouragement as part of her relational pedagogic strategy:

I am always encouraging them and yes, I am praising them. [] You have got to praise every effort that they make and keep encouraging them.

Joan (a teacher) stated that praise should be given to students even when it was not entirely warranted:

Everybody loves praise, to hear how brilliant they are. I really like being able to say to students that you have done well. Oh, this is brilliant. It is important

just to really talk them up and tell them how awesome they are, even if they are not, to be honest.

Teacher participants used praise and encouragement at various times to support students with dyslexia in their mainstream secondary classrooms, as reported in their comments. Insincere praise can be counterproductive. Lily was more open; she reported that she wanted honesty from her teachers and to be held to the same high expectations and receive the same kind of sincere praise as her peers, highlighting the importance of teacher training and experience in responding sensitively to individual needs (see Sections 5.2 & 5.7). The current study confirmed that praise, whether conditional or unconditional, can be ineffective if teachers are disingenuous, as it may create negative experiences for students with dyslexia (see Section 5.5). While Joan may have utilised insincere praise, this was not the norm for the other teacher participants, as the majority of teachers said they provided sincere praise. Lily (a secondary school participant) stated she was expected to:

Perform academically, just as any other student without dyslexia. I give my best in every class that I can. I am not treated differently from my peers, I am held to a high expectation and encouraged like everyone else.

All of the university and secondary student participants preferred teachers with high expectations, who sincerely encouraged them to meet those expectations as they would for other students in the class. The social model of disability suggests disability such as dyslexia is socially constructed (see Section 3.3). It has been suggested that “people with functional disorders often feel that what others first of all notice is their disorder and sometimes this disorder is all they ever pay attention to” (Nielsen (2011, p. 557). In the current study, secondary and university student participants’ comments did not include instances in which they believed that their dyslexia was the first thing that people noticed or that this was their main focus.

In addition to encouragement, teachers used praise to build a supportive relationship with dyslexic students. For example, Misa (a mainstream secondary school teacher) stated:

I think probably knowing and talking to your students, knowing their abilities, will help when giving praise.

Rowena (a teacher) said:

Believe me, they respond really well. I am aware of who my dyslexic students are and who responds well to praise.

The current study confirms, however, based on teachers' comments, that praise and teacher-student relationships are strongly linked. It is likely that praise fosters good mental experiences for students with dyslexia if it is sincere. Therefore, supportive tools such as praise and encouragement can be used to construct positive identities and reduce the challenges that students with dyslexia face being a part of the system.

8.5 Rapport building

Building rapport was another substantive theme found throughout the analysis.

Nate (a secondary school student) stated that if teachers inquired how he was feeling, his response varied based on his feelings. He stated:

It depends on what teacher. Some teachers are liked, and it is all right and some are just a bit awkward. It depends on what mood I am in. If I am in a bad mood, I just do not really want them to ask how I am feeling.

Frisby *et al.* (2016) investigated teachers' perspectives on teacher-student rapport and suggest that rapport creates an atmosphere in which students are more likely to make inquiries, clarify their understanding and seek guidance (see Section 5.2). On the contrary, based on comments like this from secondary students, the conditions for building rapport and the outcomes of such interactions differed between teachers and students. Two factors may affect rapport building – the mood of the student and how

much that student likes the teacher, as reported by Nate. This type of relationship can involve students understanding their teachers and vice versa.

The teacher-student power dynamic can also affect the mood and likeability of the teacher. Rowena (a TA) suggested students with dyslexia should lead this process. She stated:

The student should lead, but it does help, especially building relationships, getting the support, and having the support they need. I think the student should lead.

Like Rose, other teacher participants reported they did not want to hold or share the power in the supportive relationship but would prefer the student to be responsible for managing this process. This does not always happen in reality, especially when there is pressure on the teacher to ensure students achieve good grades (see Sections 5.5). It is likely that proper management of power in a supporting relationship can influence the identity of students with dyslexia, therefore careful considerations can be made to determine its usefulness.

Another key point mentioned above was empathy skills, which helped build rapport. Misa (a teacher) stated:

I think we have to have in our role a certain amount of empathy, because without that you cannot even step forward.

Misa and other teacher participants recognised the importance of empathising with student and the effect on their mental well-being, academic achievement, and self-development. Depow, Francis and Inzlicht (2021) described empathy as “sharing someone’s emotion (an emotional process), taking someone’s perspective (a cognitive process) and feeling compassionate and wanting to help (a motivational process)” (pp. 1198–1199). In agreement with the above definition, the current study defines empathy as a psycho-social response, which includes seeing beyond one’s own

emotions, and understanding how another human feels, while acknowledging and accepting others' subjective meanings, with the intention of showing kindness towards individuals, which may lead to positive social outcomes and reduce barriers in creating an inclusive classroom (see Section 5.5). The current study suggests that social life in a mainstream secondary classroom is possible even when empathy is not displayed.

Effective communication skills are connected to empathy and can strongly influence students' academic achievement and experiences. However, there are differences in how teachers use their communication skills to display empathy in a mainstream secondary classroom. Mandy (a teacher) stated:

Knowing, listening, and talking to students, knowing their abilities, will help them most.

Mandy and Mike (teacher participants) were more open to sharing their viewpoints on effective communication to support students with dyslexia along with empathy, while some of the teachers shared that empathy is not something that can always be visible.

The present study also suggests that good teacher communication skills can likely help build rapport not only with dyslexic students but also with the entire class. For example, Mike (a teacher) stated:

It is quite easy to make information and lessons friendly for dyslexic students, which automatically makes it friendly for someone who does not have dyslexia. I communicate well with all my students.

The majority of teacher participants agreed with Mike on this comment. Effective teacher communication and empathy can therefore be beneficial in creating constructive interactions for all learners in mainstream secondary classrooms. However, despite individual teacher's efforts, if the entire school does not have an inclusive ethos, students with dyslexia may still have unpleasant episodes outside of

the teachers' control. Therefore, an inclusive ethos can be integrated into a whole school's approach to increase acceptance of difference and diversity.

The concept of the teacher-student bond was also recognised throughout the analysis as important in building rapport between teachers and students with dyslexia, but how it is interpreted by teachers varied according to their own socio-cultural background and experiences. Mike (a mainstream secondary school teacher) stated:

I have a deep interest in seeing all my students do well.

All of the teacher participants shared that they wanted their students to do well, but only Mike shared that he had a deep interest in seeing his students succeed, which likely impacted his interactions supporting students with dyslexia (see Section 5.2). The present research suggests that varied subjective interests influenced teachers' feelings in and reasons for helping students with dyslexia. Teachers' supportive strategies are linked to teacher training as well as their cognition, emotion, motivation, and beliefs about how to help a particular student (see Sections 5.4 & 5.7). Joan (a teacher) described creating bonds with her students:

Ongoing support is a common theme throughout all the interactions that you have and because you are always reassuring. You are always checking that they are okay, that is my experience.

During the COVID-19 pandemic, the majority of teachers and TAs reported they provided more support outside school hours than during normal face-to-face learning, despite it interfering with their home life (see Section 5.8). However, no secondary student with dyslexia participant reported receiving such support. Nate (a secondary school student) stated during COVID-19:

I did not really like it and I found it more difficult to learn. So obviously, I could not really ask questions, so it was harder to focus.

Amoy (secondary school student) stated:

I found no one was there to properly support me or help me, I could not do it as well.

Based on the teacher participants' comments, ongoing consistent support is a tool some teachers claimed they used to build rapport with dyslexic students, whether online or face to face. This strategy may have been useful to support students with dyslexia, as they require more assistance than their non-dyslexic peers. During the process of support, which includes continuous dialogue, students with dyslexia are likely to develop a sense of trust for their teachers. The outcome of greater teacher understanding through rapport building is that students can be more open to the teacher, helping the teacher choose suitable and effective inclusive learning tools.

Through data analysis, genuine care for students was identified as a key factor in building rapport. Misa (a dyslexic teacher) used her past and present experience as dyslexic to encourage productive interactions for students with dyslexia by being genuine. She reported:

Because I have got it, I can relate, listen, and care for them quite well.

Misa was the only teacher participant who shared that she was dyslexic. However, the majority of teacher participants also shared that they too genuinely cared for their students, even without being dyslexic themselves. The present study also confirms that genuine care from teachers involves actively listening to students with dyslexia, which is an effective communication skill connected to empathy.

Michelle (a university student) reflected on her experience of rapport building with teachers. She stated:

No, I do not think anybody cares really, to be honest. You know, I did not feel like teachers cared because nobody took time to do anything.

Biesta and Stengel (2016) suggest that for this bond to be beneficial a productive learning interaction is contingent upon both the teacher and the learner desiring a

relationship, which could create positive experiences (see Section 5.2). Based on university students' comments, care and desire can likely be considered an important aspect of the bonding process between teachers and students, only if both wish to engage in this action and based on one's perception.

The majority of university and secondary student participants who took part in current research reported the importance of maintaining a sustainable pedagogic and integrity-based approach in building rapport. For example, Beth (a mainstream secondary school participant), stated:

My sociology teacher is just so nice. My favourite experience was when we used to debate things in class and then we talked about it afterwards, so good.

The current research did not find a single, universal, sustainable pedagogic and integrity-based approach that can be applied in mainstream secondary classrooms. Hence, the subjective perspective of students with dyslexia should be considered, as well as strategies that use a sustainable pedagogic and integrity-based approach. Beth's case indicated that the relationship with her sociology began in year eight and continued until year 13 (the time of the interview). The sustainable pedagogic integrity-based strategies that Beth's sociology teacher adopted, such as one-on-one conversation, may have helped build a strong supportive relationship that is likely to have played a role in shaping Beth's identity. However, none of the other teachers shared an example of using sustainable pedagogic integrity-based strategies used to support students with dyslexia or build rapport. An explanation for this is that the researcher did not prompt this approach, as it may be a general practice used by teachers, but it is worth mentioning, as it can likely support students with dyslexia, so it can be encouraged.

The development of sustainable pedagogic integrity-based approaches to enable rapport building may be challenging for some teachers due to the actions of some students with dyslexia. For example, Rose (a teacher) stated:

Students with dyslexia use a lot of avoidance strategies, which can also then have a knock-on effect on behaviour.

Rose and other teacher participants reflected that students with dyslexia might use passive coping strategies to mitigate the difficulties they face when interacting with teachers while learning. Rose indicated that behaviour could be a problem, which can likely affect teachers building rapport with these students. Another challenge shared by teachers when building rapport with students with dyslexia was that they may not share openly how they want to be supported, or how they would like teachers to interact with them, which is what TA participants required from students with dyslexia in the previous chapter.

The current study indicated that not all students felt their teachers tried to build good rapport or provided diligent support while learning. A few secondary student participants commented that their teachers did not utilise rapport building skills or showed they cared. Nate (a secondary student) described how he felt about teachers pressurising students. He stated:

Teachers need to stop putting so much pressure on students and that would help a lot. It affects how I feel. If students felt less pressured, I think it would affect us in a positive way.

Secondary school students' comments suggest that their cognition and emotions can influence their relationship with their teachers as well as their identity. If students feel uncared for, this may badly affect the building of a beneficial relationship with that student and negatively influence students with dyslexia identity. Therefore, teacher

training and dyslexia awareness initiatives are important when creating inclusive classrooms (see Section 3.2, 5.6, 5.7 & particularly Noddings, 2015).

8.6 Chapter summary

Students with dyslexia and the society are dialectically related, therefore, this chapter focused on the relationships between teachers and students as well as teachers' understanding of students with dyslexia within a systems approach. Teachers' attitudes and perceptions can shape the formation of relationships with students with dyslexia and can shape their language, choice of words, and understanding of students with dyslexia. A teacher's approach and beliefs may differ from students with dyslexia. They may hold different viewpoints regarding dyslexia and inclusion practices, which may increase the likelihood of an occurrence of dilemmas of difference. Teachers' subjective backgrounds can influence how students with dyslexia interpret their actions and emotions towards them, thereby, defining the relationship. The teacher's relationship with students with dyslexia is not always encouraging, yet their supportive role is important in a mainstream secondary classroom. Teacher bullying includes ridicule and stigmatisation and goes beyond a lack of understanding. It impacts not only teacher-student relationships but also can influence the experiences of students with dyslexia. Teachers may use laughter as a pedagogic strategy to distract other student when students with dyslexia face challenges due to their learning differences, while others may use it in a maladaptive way that fails to benefit students with dyslexia learning. Due to a lack of professional knowledge interacting and building supportive relationships with students with dyslexia, humour could become a barrier in establishing an inclusive classroom.

The majority of the students with dyslexia reported having an increase in stress levels when reading out loud, although this was not the intention of use by teachers. Mental blocks can occur when students with dyslexia reflect on past damaging psycho-emotional experiences in mainstream secondary school, which are so painful they are repressed and may cause brain fog. Hence, it is important to understand how emotional factors impact students with dyslexia. Additionally, age, relationship with peers, and lack of teacher awareness can be considered to reduce the likelihood of students with dyslexia having unpleasant experiences, such as mental blocks, when asked to read out loud. Coping with such challenges prompted some students to develop their own coping tool.

Positive teacher relationships with students with dyslexia can be created if teachers motivate students to learn from their mistakes as a relational pedagogic strategy and can help build meaningful relationships between the two. Comments from the majority of student participants emphasised their preference for teachers who held them to high expectations and helped them to meet those expectations as they would for their classmates. If teachers provide genuine supportive, constructive, and reasonable encouragement, it can improve students with dyslexia psychological resilience. Additionally, praise can be conditional or unconditional and may be given for effort, but insincere praise can be counterproductive.

To increase the likelihood of students with dyslexia having good experiences in mainstream secondary school, the researcher identified strong rapport via teacher-student relationships as important. Both students and teachers commented on the importance of developing a good rapport. Dyslexic students' responses to teachers engaging with them in building a supportive relationship varied, so teachers can be aware of these differences and act accordingly. Both students with dyslexia and

teachers need to understand each other, and students with dyslexia mood and teacher likeability are two key factors that can affect rapport building. Other factors include trust and understanding, where knowledge involves listening, empathy, meaningful praise, and encouragement. In student-centred learning environments, empathy is likely to play a significant role in motivating students towards their learning. Rapport building also involves teachers being driven to help students with dyslexia.

Displaying sincere care and ongoing support are supportive tools that some teacher participants used to build bonds with dyslexic students. Relationship building also includes teachers caring for their students, but this only has relevance or value where both teacher and student are interested in engaging in that type of relationship. The interplay between the person and the context is significant in the development of identity and is therefore discussed in the next chapter. Structures and relationships are a key part of this interaction, as they can either support or hinder the development of a positive identity.

Chapter 9

Identity

9 Identity

9.1 Introduction

Structures can both constrain and impact relationships, as well as influence the identities of students with dyslexia. Within a cultural-historical approach, Holland and Lachicotte (2007) suggest that identities are composed of the thoughts, feelings, memories, and experiences that a person can draw on as a basis for action or response. Emotions differ, even when individuals undergo the same experience, as there is an interaction between person and context that may shape their identity (see Section 4.5, particularly Holland & Lave, 2019). This chapter incorporates the analysis of the preceding two chapters and culminates in these key findings. The analysis pulls together the relevance of how experiences of systemic structures and relationships within these structures can influence personal identity for students with dyslexia. The findings highlight the importance of early intervention, educator understanding and support for students with dyslexia, and how these can help to mitigate negative effects of systemic structures and relationships.

The findings indicate that relationships can be produced within a complex system such a mainstream secondary classroom and influence students' developing sense of identity through interactions with others and through biological factors such as genetics and hereditary components that contribute to explanations for dyslexia. The participants' viewpoints about dyslexia vary in different ways and over time, and this can contribute to shaping their identity. The perspectives of university students and secondary students on some issues within the classroom as-activity-system and about class relationships are similar, for example about getting an early diagnosis and access to support. However, there are some notable differences in regard to coping

tools related to identity, such as self-reflection and self-advocacy. The analysis identified subthemes from the overarching theme of identity. These subthemes are labelling and early diagnosis, as well as developing distinctiveness as a student with dyslexia.

9.2 Labelling

9.2.1 Constructive labelling

Knowledge of labels can be linked to a person's understanding of dyslexia. Both university and secondary student participants had similar and different perspectives on dyslexia that differ from their teachers and TAs, which affected how they viewed themselves and interacted with others within the system. Claire (a teacher) understood dyslexia based on her professional experience and relationship with dyslexic students:

There is an issue with reading and writing and getting what you want to say from your head out on paper is really hard. Getting the letters in the right place and getting everything in the right order. When you are reading something, you are so busy trying to figure out what it says, that it is difficult to be able to comprehend. You are looking at individual words and just trying to piece together what on earth is going on. You do not get that kind of wider comprehension if that makes sense. You do not get kind of the broader understanding of what is there.

Claire's comments suggested that students with dyslexia ability to understand, read, and write accurately makes it difficult for them to grasp and make sense of what they are reading, which may affect how they viewed themselves in the classroom. Misa (a TA) recognised the variation in the ways dyslexia is expressed:

It varies child to child, or student to student. Should I say, it very much depends on the attitude of that student or the behaviour of that student. That definitely stems from the way they have either been diagnosed with dyslexia or if they have not been diagnosed. Some students are great, really willing to learn, and have sort of no fear of failure whatsoever. On the other end of the

spectrum, you have got kids that are so scared to do anything wrong, or do not feel like they can access a lot of the content.

Misa's comment also defined dyslexia but emphasised individualistic subjective aspects of dyslexia. students with dyslexia may have strong self-confidence or a lack thereof, which forms a part their identity . In addition to this, how dyslexia is presented can depend on the attitude and actions of the student, which may differ from student to student. Hence, dyslexia can be viewed as more than just a limitation in understanding, reading, and writing (as mentioned in the comment above); it can be a complex phenomenon that is diverse. Adding to the intricacy of defining dyslexia is that some students may have an official diagnosis, some may not. Diagnoses can affect how students with dyslexia label themselves and how others around them might use that label as a yardstick for all definitions, relationships, and interactions with them in a learning environment where others are not sure what dyslexia is. Individuality can therefore take many forms for dyslexic students, depending on their interpretation of the label, which may play a role in how students with dyslexia approach learning and how they use active or passive coping skills. Beth (a secondary school student) provided her definition of dyslexia as a current student:

I struggle with my writing, and my reading and that is what it is, but I know there are different types of dyslexia, but I mix up my words and stuff like that, and I find it hard to read.

Beth's simple definition is closely connected to reading and writing, which contrasts with the definition below and hints to a rejection of other types of dyslexia. Beth's definition does not suggest that there are psycho-emotional experiences that contribute to students with dyslexia mental well-being and identity formation. On the other hand, Moses (a university student) viewed dyslexia as:

Dyslexia is a variation in our abilities. So, you are doing some things really good, but some things you have a drop in ability, being really poor at. So, there is complete variation in your actual ability, and it is not that you are bad at everything, it is just certain processing things. Your brain does not quite process things like other people, but generally processes things differently. It is not that it does not resist them, the brain just processes differently. So, for me, for example, that comes in the form of memory issues. So, things like memory, remembering, spellings and things like that are not great also. Like my audio memory, it is much more than my visual memory.

Moses' comments, like Claire's, point to the limitations of students with dyslexia understanding, reading, and writing accurately. However, Moses gave more of a biological reason for his learning difference, claiming his brain worked differently from his non-dyslexic peers, which caused him to struggle in some areas. Moses' identity came from his own interpretation of being dyslexic and attending secondary school within a different period from current secondary school participants, such as Beth. His maturity as an older dyslexic student likely helped him understand himself more. This knowledge may have contributed to how students with dyslexia understood not only themselves but others within their learning environment, and if they allowed people's definition of dyslexia to have an effect on who they were.

Some understandings were linked to more discrepancy-based definitions, while others were linked to more descriptive definitions (see Sections 2.2.2 & 2.2.3). Beyond academic staff's definition of dyslexia, students with dyslexia may struggle with their personality because teachers do not understand them. If there is no consistent message to help students with dyslexia develop their identity, and teachers and TAs have different understandings of dyslexia, which may be driven by the object of the school, this can cause these students to have damaging experiences and battle with themselves. For example, if teachers do not understand dyslexia and focus only on meeting the school's performance target, students with dyslexia may feel that their

strengths in areas outside academic performance are not as valued or important or even worth engaging in. Participants' understanding of dyslexia affected how they viewed labels (e.g., dyslexia), which either constrained or moulded their persona.

Labelling is a multifaceted social construction that has been interpreted in different ways over the years, and still continues to impact students with dyslexia sense of self (see Section 2.4). Mike (a teacher) stated:

It does take time for dyslexic students to learn about the label. They can then choose to accept it or not, they just need to be themselves.

Such comments from teacher participants suggest students do not have to lose their individualism to fit into a label, but an understanding of the label can improve with time. The majority of student participants in the present research wanted a 'dyslexia' label for different reasons. For example, Lily (a secondary student) stated:

I want the label or diagnosis. Teachers need to learn about it, and they need to be there to support students.

Some of the secondary students who participated in the study comments proposed that they wanted the label, since it would have helped them better understand themselves and improve the supportive relationship with their teachers. Lily and other secondary student participants noted the importance of teachers' understanding the label and providing adequate support. Izzy (a university student participant) stated:

The teachers who knew I was dyslexic would be the ones who understood me and were much more understanding.

These students had arrived at their own interpretations of the benefits of the dyslexic label and decided whether it would help to develop their current or future identity.

9.2.2 Access to support without a label

Six of ten university and three of five secondary student participants wanted access to additional support, but not to be publicly stigmatised by a dyslexia label. Amoy (a secondary student) did not want the dyslexia label but wanted access to extra support while learning. She stated:

I do not want a label or to be treated differently, but I do need actual help and support from my teachers.

This can be interpreted as another example of dilemmas of difference relating to one's disability and several examples of preferring not to be treated differently were found throughout the findings among secondary school participants (for example Lily's & Amoy's comments in Chapter 8; see Section 1.2; particularly Norwich, 2007 & 2009). A tension can arise between the label being used as part of teaching strategies or to establish roles (as part of the division of labour) in the activity system, and the value placed on inclusion can arise.

Amoy and other student participants may not have wanted to publicly accept being dyslexic by having a label or being treated as such openly; they wanted to be included and treated like their peers, and to access extra teacher support without the label being used as an identification mechanism. It is not so much the diagnosis being used as a tool, but that certain observable practices, designed to offer the help that students with dyslexia need (like support from a TA or having to go to special classes for extra reading while others go to assembly), also lead to open classification as different. As it relates to visibility, students with dyslexia want to look the same or things to look the same for them in the classroom with their peers, whereas they want teachers to understand that they are different so that they are either given a bit of slack or presented with practices that help them, but these practices should be inclusive that

it benefits everyone in an inclusive kind of way rather than practices that single out students as dyslexic.

Misa (a mainstream secondary school teacher) reported how she used labels.

She stated:

I would never force a student to accept a label, and it is up to the student if they share that they are dyslexic or not.

Based on such comments from teacher participants, students with dyslexia usually chose whether they wanted their dyslexic identity made public to their peers, as their classmates may not know what dyslexia is, which could impact how they viewed themselves.

9.3 Early confirmed diagnosis

The analysis showed the importance of an early diagnosis as a critical factor that affected the character and interactions of both secondary and university student participants. Michelle (a university student) stated:

Something that I would have found helpful if somebody had explained to me, I suppose, I would have needed the proper diagnosis first, but actually explained what dyslexia meant.

Snowling (2013) suggests dyslexia lacks clear-cut diagnostic criteria, which may explain why some university and secondary student participants did not receive early confirmed diagnosis and choose to self-declare/identify as dyslexic (see Section 2.5). Comments from some university participants suggest an early confirmed diagnosis would have helped to provide a smoother transition from primary to secondary school (see Section 5.9) and helped them develop active coping skills. The majority of university and secondary participants did not have a diagnosis in secondary school but reported they conducted their own research about dyslexia to improve their own understanding.

Although the majority of student participants would have preferred an earlier diagnosis, they would still have accepted a diagnosis while in secondary school.

Danny (a university student) commented:

I agree that identification is important in secondary school. Something can be put in place, and it does not necessarily have to be secondary school if it could be identified in primary school .

Danny recognised the importance of an early diagnosis. Lily and Izzy were the only two participants who reported having a dyslexia diagnosis in secondary school. Izzy (a university student) stated:

So, I was diagnosed when I was seven. My mom was quite a pushy parent, but in a good way.

This may form part of their complex motivation to get a confirmed diagnosis if they believe their child is experiencing difficulties and is consistent with Edmonds' (2021) observation that parents often pursue a diagnosis in response to their concern for their child's progress or development when their child is young (see Section 2.5). These participants did not report any instances where an early dyslexia identification negatively affected their general development. However, some cases might not have been shared with the researcher because participants may have chosen not to recall them.

Similar to their response to having a label, the majority of secondary and university student participants reported they would not want a dyslexia diagnosis to become shared knowledge. Nate (a secondary student) stated:

If I had a diagnosis, no other student would need to know. I should be treated like any other student in class. I am happy not everyone knows I am dyslexic.

According to Edmonds (2021), "The effects of peer relationships therefore are an important factor in the development of self-esteem and confidence and crucially are

indicated in being a detrimental force if the relationship is negative and damaging” (p. 22). Therefore, understanding how labels can shape students with dyslexia identity is key (see Section 2.4). Students’ responses in this research suggests the fear of being treated differently from their peers appeared to have unfavourable consequences on the self-image and self-worth of students with dyslexia, based on comments from both university and secondary student participants. Rose (a teacher) commented:

Dyslexia, whether they have a diagnosis or not, is generally not made public knowledge to other students, usually, it is only told to the teachers.

Comments such as this from teacher participants implied that this information is on a need-to-know basis and that teachers are sensitive to limitations on sharing information. This is consistent with avoiding marginalisation and a ‘one size fits all’ intervention approach in creating an inclusive classroom (see Section 5.4).

Dyslexic students’ self-understanding and openness to being recognised as dyslexic can be affected by the attitude of other students toward them and how comfortable they are with being different. Whether students with dyslexia are comfortable being candid about being unique may also depend on the school’s ethos in the period that they attended mainstream secondary school. If the school has an inclusive ethos, schools accept difference and diversity. However, this may differ in meaning and practice depending on the school, which in turn can frame students with dyslexia identity. In both the past and present, movements towards making mainstream secondary schools more inclusive have encountered barriers in this process as schools try to balance competing ideologies, including need to ensure the school’s performance on challenging national examinations (see Section 5.5, especially Evans and Lunt (2002)). Changes may not have been as effective in some schools, as Nate, a present-day student, is still uncomfortable with others knowing

that he is dyslexic and responding unsympathetically to his learning difference. On the other hand, Izzy (a university student) shared she was comfortable being different: She said:

Yeah, looking back on it, I actually quite enjoyed school. I probably would not have said that at the time, but it was a good place to be. I had some really good relationships with friends and teachers who I am still in contact with now, who are curious to know what I am doing down the line. I told people I was dyslexic. I was okay with it.

Comments like this from university students suggest that a few of them were relaxed sharing they are dyslexic, possibly because they had an early diagnosis and built on their understanding throughout primary and mainstream secondary school. The time period may have impacted the information and way dyslexia was diagnosed. In addition to this, mainstream secondary school they attended could have also been a factor depending on whether it had an inclusive ethos. Izzy clearly had active coping skills and supportive relationships both inside and outside of school, which helped develop her sense of self.

The majority of student participants considered themselves to be different from students with general reading issues. Lily (a secondary student) said:

My mom did this learning training course to go through the real basics, which included phonetically spelling words. She went out of her way to make sure that I had a base level being dyslexic. I am not a poor reader.

Comments like these from secondary school students suggest the role of parents in helping to develop dyslexic students' personalities. Only two secondary school participants reported they did not have general reading issues based on an early diagnosis and family influence. The majority of university and student participants reported that their teachers and individuals in their support systems told them they were dyslexic, not that they had general reading difficulties, which likely constructed

how they viewed themselves, approached their studies, and interacted with others in their mainstream secondary classroom. David (a university student) stated that prior to formal diagnosis:

If you screen students early and let them know what is going on, and you show them what the accomplishments of dyslexic people are and the relevant support is provided, that is good.

In comments like this from university student participants, it is likely that early screening, diagnosis, adequate support, and mentoring from individuals with exceptional dyslexic selves produced encouraging experiences for past students with dyslexia. In the present, however, no secondary school participant reported that they had any form of mentorship related to being dyslexic. Although this might be a useful active coping skill identified by Moses (a university student), its usefulness may be viewed differently in mainstream secondary school today because of the object of the school. Both university and secondary school participants had their own interpretations they considered important in contributing to a dyslexic identity.

9.4 Developing an identity as a dyslexic student

9.4.1 Formation

Based on the above comments, a dyslexic student's identity can be formed from an early assessment, positive dyslexia role models (for example, teachers) and the way support is given to them. It can be argued that dyslexia should only be viewed as an abnormality or barrier if the student with dyslexia accepts it as such, and not defined as others see them (see Section 3.3, particularly Shakespeare, 2013). None of the student participants referred to themselves as disabled or wanted support assigned for disabled students. The majority of university and student participants wanted

support dedicated for dyslexia, which was regarded as a distinctive learning difference and not a disability. Michelle (a university student) commented:

I just think teachers really need to appreciate students with dyslexia and coping strategies, and not just teach, am not disabled though.

Similar to this, Edmonds (2012) conducted a study with four adults who shared their early memories of dyspraxia as children, which is a condition that affects motor abilities and is often associated with dyslexia. That study suggests “individuals with dyspraxia should be seen as having a ‘diff-ability’ in thinking style rather than a disability” (p. 1). So too students with dyslexia can be seen in a similar light see depending on how dyslexia is contextualised and constructed (Section 2.1). All university student participants reported they understood, based on their years of experience as dyslexic, that their way of learning differed from their peers, but they did not have a disability. However, they understood that external factors were there to support them and could also help build their identity, which included providing dyslexic mentors who had extraordinary identities, as well as supportive relationships with their teachers.

The majority of university students wanted teachers to understand them and provide adequate support accordingly, and not just focus on teaching an activity. Dyslexic students’ self can be constructed through many factors and interactions with different people. However, the interactions between students with dyslexia and their teachers, and how teachers use teaching tools, can significantly impact students’ personality. Where teachers focus too much on learning or outcomes without recognising or supporting students with dyslexia needs and strengths, students are likely to find it harder to understand themselves, as reported by both university and secondary participants. If teachers do not understand students with dyslexia, it can

negatively impact how they feel about themselves and adversely alter their identity. However, if teachers can distinguish and adequately support students with dyslexia, this is likely to help establish rapport and build a supportive relationship, helping to define a clear persona.

Michelle (a university participant) seemed to have accepted the material reality of dyslexia but did not know how to clearly identify herself, based on the experiences she had shared throughout the data. Elliott and Grigorenko (2014) provided detailed information on the many ways in which reading problems have been theorised and operationalised, and they suggest that dyslexia should be treated like any other reading problem (see Section 2.3). In contrast, the majority of student participants in the current research desired and acknowledged a dyslexia label, confirming that this learning difference existed to them based on their recognition and understanding of the label. Michelle stated she did not receive much support from her family or home environment to support her self-development or education but thought she was dyslexic. She said:

My parents could not give a damn if we went to school or me possibly being dyslexic.

Although the period when Michelle and Lily attended mainstream secondary school differed, their socio-cultural background still likely influenced their identities.

Michelle reported that she had developed unfavourable coping skills, such as bullying, in response to her learning challenges and to fit in with a particular group of students:

I completely changed who I was to be able to fit in at different periods of time, you know, and then you become like this bully person that you were not before.

No other university or secondary student participant reported they used bullying as a coping skill as part of their dyslexic personality.

All secondary and university students (except for Michelle) reported they would never have ascribed to being a bully and they were never bullied. Humphrey and Symes' (2010) empirical study of understanding of bullying in mainstream secondary suggests dyslexia is less visible than other disabilities or learning differences, which could explain why they were less likely to report being bullied if the label is not made public (see Section 2.4). Ridley (2015) maintains that having a strong sense of self can help one resist peer pressure and encouragement to engage in harmful activity. Bullying is an example of an undesirable coping strategy in response to negative experiences and is a clear barrier to creating inclusive classrooms (see Sections 3.2 & 5.5). A classroom that fails to meet the needs of students with dyslexia can likely put students at risk of using maladaptive or passive coping strategies, such as bullying, to deal with their learning difficulties.

9.4.2 Biological, environmental and peer influence

Lily (a secondary student) reflected on her family support whilst in a mainstream secondary classroom. She stated:

So, my mom and family from the get-go, as soon as they realised, I had something, always said if you cannot do something, just try your best.

Some researchers are of the view that genetic factors are held to account for a larger part of variance related to reading challenges than environmental issues and some students may be susceptible to dyslexia, as it can be considered heritable based on a bio-psych-social model understanding of dyslexia (see Section 3.2; particularly Deighton *et al.*, 2020). However, comments from secondary student participants suggested that their environment strongly impacts their ability to cope with the

challenges associated with being dyslexic. Lily's mother, who is dyslexic, clearly helped Lily cope with her learning difference by providing relevant tools, assisting Lily to understand herself. Throughout the data, Lily and other secondary and university student participants demonstrated that resilience is a coping skill used both in the past and in the present that can be formed through the individual's subjective socio-cultural background.

Lily (a secondary student) also reported the value of peer interaction. She stated she would have liked group discussions with her (non-dyslexic) friends to talk about dyslexia, so they could be informed about her learning difference and understand her better. Most of her peers did not know much about dyslexia. She stated:

Group discussions, I think it would be helpful, because like, not many people know like about dyslexia that much like all my friends know. People know about it, but they did not know much about it, they know I have it, but they do not know, like, what it is and stuff like that, so I think it would be good to educate them.

Danny (a university student) stated:

I would have wanted to have someone to talk to who had knowledge of learning differences that did not necessarily need to be an adult, even like a group of students going through the same sort of things in school.

Both students with dyslexia who reflected on their past experiences and present-day dyslexic students want to have a space to discuss being dyslexic, which could have had an impact on identity. Lily and other secondary school participants also reported that they enjoyed working with their peers. Lily reported:

I am not just working with myself; I think I like working with my friends normally in groups, because then they are helping me, and we all understand the same things.

Joan (a teacher participant) also encouraged her dyslexic students to work in groups. She reported:

Working in groups is great. It gives dyslexic students some more confidence to know that their answers can be discussed sort of internally before they are spread across to the class.

The present study confirms that group discussions and group work that seek to promote positive psycho-emotional experiences can help students with dyslexia develop positive coping skills such as self-understanding and increased confidence, as well as shaping their identity.

9.4.3 Choice of academic subjects

Independence to choose which subjects to study is an important part of a dyslexic student's identity and can affect how they perceived themselves in a mainstream secondary classroom. Michelle (a university student) stated:

Choices were taken away from us when there were alternatives available. If we choose something, we will be more committed to it.

All university and secondary student participants reported they wanted to have a say in their choice of subjects. Data analysis indicated the rules and values operating within the classroom-as-activity-system pertaining to the choice of subjects for external examinations, and the selection process, can be related to the object and outcomes set out by the school. For example, mainstream secondary schools may set individual targets to support an object of having as many students as possible achieve at least five good GCSE passes. The values of an institution may include expanding participation of students with dyslexia in their learning, while simultaneously, inclusive practices to ensure they are involved in choosing their own GSCE subjects are limited. However, it is not uncommon for some schools to choose the subjects they believe students with dyslexia are likely to pass using their own assessment criteria to make this determination. This leads to a contradiction between the value placed on the participation of subjects (students with dyslexia) in selecting their

GCSE subjects and the object of the school, which is to maximise getting good GCSE passes. The contradiction between rules of participation/autonomy and maximising the number of GCSE passes is a crucial factor, which indicates the system can be set up in a way that does not work for students with dyslexia because of practices that do not promote inclusive values. Mainstream secondary schools have in the past and currently still limit students with dyslexia in their ability to choose academic subjects for examination. If schools say they have an inclusive ethos that accepts difference, but they do not give students with learning differences the empowerment and freedom to make their own choices regarding GCSE subjects, then they are unlikely to be truly inclusive. The identity of students with dyslexia can be constrained because they are unable to choose their own subjects, which reflect their strengths, yet forced into subjects that will help to achieve the school's object, which they may find difficult.

Despite the challenges within the system, students with dyslexia may still be motivated and set their own goals regarding their choice of subjects, which can influence their attitude and commitment to learning, and contribute to a positive sense of self. Michelle commented on her prior experience in a mainstream secondary classroom. She said:

I left school after GCSE, and we had very little choices for GCSE. You had to do Math, Science, English, and then they decided you were doing a vocational course because it was a lot easier. You were not given the choice in the lower classes, because that is what they just thought you were capable of. When I was at school, these are the people that will achieve. That is why even when you were in GCSE year, you were only doing Math, Science, English and then you were doing vocational stuff. The people that were going to achieve something in life were also doing all these and other things. They had choices of what they wanted to do for GCSE. You know, so those are the people who went on to do A-levels and things like that. I guess, until after we finished our GCSE years, you were going out to work, and that is what I did. So, there was no choice that was completely gone for us.

She added:

They even decided what paper you would do. The foundation paper they would decide that at the beginning of the year. I mean, at this point you have got year ten and year eleven to do GCSE. How do they know that you could have done any better to do the intermediate paper, rather than the foundation paper at the beginning? Well, they had already decided that, so their aim in class was to basically help, and they said this is what you will do.

As it relates to comments like this from university students, the way schools view dyslexia can impact how they support and form students with dyslexia identity. A social model perspective locates a problem in the society, and schools can choose to incorporate this understanding into the activity system; such an understanding can affect how these student view themselves and relationships with others in the learning environment. Dyslexic students more likely, however, to be motivated by their own goals, which may not accord with the school's object, as reported in comments from university students. Self-esteem, confidence, and self-worth of students with dyslexia can be adversely affected if this conflict is pronounced or not acknowledged, prompting adverse psycho-emotional experiences.

Michelle reported feeling less valued by her school compared to her peers, and teachers had lower expectations of her academically, leading to the school limiting her choice of subjects and minimising her educational achievement. The activity system in Michelle's case may not have worked for her as an individual, instead working towards the collective aim of maximising GCSE scores (see Section 5.5) & supporting reasons for grouping by ability (see Section 2.6). It is critical that students understand tiering and that their opinions are considered when decisions are made about which academic subjects and what level to undertake. The way Maths is examined, for example, means a student can be set on a path (in foundation tier) towards a 'capped' mark, and it is exceedingly difficult to move beyond this.

Michelle's commitment to learning and her feeling of being included in the classroom

was negatively affected due to actions in the activity system that did not require her to make too much academic effort, only the minimal requirement. Michelle stated her peers were expected to achieve more and take A-levels, while she was simply expected to secure employment after secondary school, which likely negatively affected her self-esteem and self-growth. Based on the comments from Michelle and other university student participants, not all students with dyslexia will be adequately accommodated in mainstream secondary schools. In some cases, students with dyslexia are likely to have limited input or autonomy regarding their education.

Izzy (a university student) reflected on a different experience from Michelle; she was younger and attended mainstream secondary school at different time. She reported she was being forced to take the foundation paper but rebelled against her parents and teachers and remained determined to take the higher paper. She stated:

I had a chat with my teachers and my steaming parents. I refused to do the foundation paper hands down. I turned to every one of them and said no. I am not doing the foundation; I am doing the higher paper. So, I did my best, the expectations for teachers were a bit iffy. So, they worked me really hard, but then it paid off.

Comments like this by university participants suggest that there can be different outcomes and interpretations associated with subject choice in a mainstream secondary school, depending on the dyslexic student's resilience, self-confidence, self-esteem, and a school's inclusive ethos. Dyslexic students' identity and actions can reflect their participation in the activity system (see Section 4.6; particularly Kitchell *et al.*, 2000, cited in Holland & Lave, 2009). There may be tensions in what the dyslexic students believe they can achieve via examinations, and what the school or teacher thinks or values regarding what they can pass or prepared to take a risk. Educators who create an inclusive environment may be able to reduce this tension

(see Section 5.2). Although Michelle (a university student) disliked having limited choices in her exams, she did what the school advised, suggesting compliance with the rules, values and tools provided by her school, rather than being defiant or standing her ground. The way students with dyslexia view themselves and the object of the school can determine their actions within a mainstream secondary classroom. Even though she was compliant, Michelle was more self-motivated to do her best in her exams, which she passed well and went on to university regardless of her teachers' opinions. She has not only gained an undergraduate and postgrad degree but is also currently a PhD candidate. Despite the object of the school, she reported that believing in herself was the most important factor in her academic performance.

Conversely, Izzy actively voiced her disapproval of the choices on her own behalf and made the system work for her. Izzy reported that after voicing her opinion as a form of self-advocacy, she received approval from the school. Subsequently, it was reported that her teachers fully supported her GCSE choices. Izzy, said:

My physics teacher said you need to do this to pass the exam. My history teacher and my A-levels exam were really helpful too. History was a lot of words and stuff. My history teacher knew I was dyslexic and wanted to do the exam, she was extremely helpful. She would always check before she moved on to the next slide if I had written down the work and checked if I got stuck.

Izzy's facial expression and intonation demonstrated that she was happy whilst reporting doing well in all her subjects, achieving results C or above. Despite initial reservations from her parents and teachers, her actions and beliefs supported the claim that having the choice, voice, confidence, and resilience to make decisions regarding one's own learning can influence personhood. Choices can enable students with dyslexia to take a more active role in their learning, contributing to constructive experiences, especially if this occurs in an inclusive learning environment. Though Izzy and Michelle (university students) attended mainstream secondary schools at

different times and with different experiences, the system did not work for both, they had to work within and around it. Both had to find their own coping skills to mitigate actions regarding choices taking subjects for GCSE.

Done and Andrews (2020) examine how and why inclusive classrooms have evolved in recent years in England, noting significant shifts in policy, legislative guidance, and educator responsibilities, for example, changes to the SENCO competency qualification (see Sections 5.6 & 5.7). Despite these changes, “SEND-designated pupils are excluded from foreign language courses given a perceived risk of low attainment and the potentially negative impact on school data” (p. 11). Examples of such discriminatory practice arose in the current research; contrary to Izzy’s experience, Michelle was prevented from pursuing her academic choices based on the object of the school, as they were incompatible with the rule that subject choice should maximise the result outcome. Michelle was excluded from MFL in the past, and this practice persists in present day mainstream secondary classrooms, as reported by secondary school participants. When performance targets take precedence over inclusive practices, there may be a tendency to exclude students with dyslexia from full participation in the classroom.

The majority of university student participants reported they enjoyed engaging in creative subjects such as dance, drama, and music. Amy (a university student) commented:

I did not have to pick up a pencil in my class; it was fabulous. I just did what I had to do. I was probably the top of my class in drama and music because that was where I excelled.

These comments from university student participants provide insight into how tools (pencil) can attract difficult emotions because of their association with actions that

cause difficulty. Amy clearly valued her ability to choose creative subjects using tools she loved, suggesting it constructed good experiences. Sarah (a university student) also reported:

Engaging in creative subjects was one of my reasons for going to school. Anna (a university student) noted:

I was really good at dance, and my school used to put on performances of dance, which I was brilliant, but you only were allowed to do that if you could do all your other work first. This was difficult for me because that was the stuff I struggled with. I should have done what I enjoyed; I wished more value were placed on dance.

University student participants' comments imply that students with dyslexia are required by their school to perform well in mandatory subjects, such as Math and English, as a condition to participate in creative subjects or activities. Regardless, if the student shows strength in creative areas that positively contribute to their identity, the object of the school takes priority. For most schools today, the object is to still have as many students as possible to achieve higher results GCSEs, especially in core subjects (see Section 4.4.3). Anna and other secondary and university student participants shared similar experiences, demonstrating that the choice to pursue creative subjects was dependent on their progress in the core subjects that some reported finding difficult, which affected their self-esteem and commitment to learning. Regardless of claiming to use inclusive practices, some teachers in mainstream secondary schools do not fully understand the implications of aspects of the way school work for those with dyslexia. Therefore, these students are not given the opportunity to participate in choosing their own subjects and to be completely engaged in their education process, resulting in decreased autonomy.

9.4.4 Self-reflection

Self-reflection is a powerful tool used by students with dyslexia to understand and develop who they are. Students with dyslexia who engaged in frequent self-reflection and utilised positive coping skills are likely to know how to mitigate the challenges associated with their learning difference. Sarah (a university student) commented:

I had no idea whether we had a SENCO. I do not think we had a school counsellor. I never met them. We did not have a learning support department at all. It was like there was no obvious place to say that I was struggling, or, you know, to have any help offered. I had to think about stuff, figure things out on my own.

The majority of university students commented that self-reflection helped them develop coping strategies based on their individual needs in a mainstream secondary classroom. The majority also reported that self-reflection, like other coping tools, helped them self-regulate and mitigate the challenges of their learning difference, and generated good experiences when school resources are unavailable or limited. On the contrary, none of the secondary school participants reported using self-reflection, which may have required a higher level of maturity and deeper self-awareness.

The Children and Families Act (2014) and the SEND Code of Practice stipulate that in most cases, mainstream education is expected to meet the needs of students 0-25 years with SEND, but this may have been a challenge during COVID-19 (see Section 5.8; particularly Ross, 2021). All secondary and university students reported their needs were not successfully met throughout the data analysis. Through self-reflection, university student participants reported they established coping skills that work for them, helping them develop positive identities. Self-reflection involves

students with dyslexia defining their identity through developing a personal understanding of their own experiences. The majority of university student participants reported that, through self-reflection, they were able to determine the causes of some of their experiences in mainstream secondary classrooms, and the reason for their choice of coping skills.

Moses (a university student) reported that self-reflection on how he coped with his learning differences increased his understanding of his dyslexic identity. He reported that when facing challenges, he would:

Put it aside and try to ignore it, but I have had a lot of time to come to terms with a sort of just different learning style that is not necessarily compatible with the convention of how things are taught.

Greater understanding of dyslexia with increased age means (as mentioned in chapter eight) students with dyslexia are likely to become more aware of themselves, their emotions, cognitions, and motivations, which impacts the coping skills they use, as expressed in comments by Moses and other university student participants. Firth *et al.* (2013) suggest that students with learning differences risk using negative coping tools, making learning more difficult, which could be related to bio-psycho-social differences (see Section 3.2). However, comments from Moses, and other university student participants, indicated that students with dyslexia will use fewer damaging coping tools, and more active coping with time, and further their self-awareness, contributing to a confident sense of self. David (another university student) described versatile coping mechanisms:

I worked out a way of doing it, so I am not doing it how everybody else wants me to do it. I have worked it out in a different way to get the correct answer, and that is fine, that is what I need to do. So, I cannot do it phonetically or whatever the word is, but I can do it visually. So, I cannot learn spellings how they sound, but I can memorise what it looks like, you know what things should look like in the sentence. I have worked out different words.

Danny further added:

If you can figure out the best way that works for you based on your own strengths and have the confidence to ignore everybody else, that is not an easy thing to do.

Moses and Danny's comments suggested they were not afraid to be unique and used coping tools that worked for their own learning differences. These students had a keen sense of self and could adapt to their learning environment, while maintaining their self-esteem. However, Michelle (a university student) stated:

Growing up, I have learnt that perseverance of self-esteem is the number one experience that people need at school, because it takes a battering and can take a lifetime to get back if you ever do.

Based on Michelle's comments, her activity system did not function effectively for her, which affected her persona and her use of coping skills, which she reported included both active and passive methods. She said her active coping skills would have improved had she attended mainstream secondary school today.

9.5 Chapter summary

The analysis found various coping tools as important in understanding the psycho-emotional experiences of students with dyslexia and their individuality. Both teacher and student participants shared their perspectives on self-understanding as a coping strategy that can help create experiences for students with dyslexia in a mainstream secondary classroom. A technique used by students with dyslexia to help with their self-understanding was to engage in self-reflection. Through self-reflection, students with dyslexia gain a better understanding of their interactions with others within the education system in which they are being educated, thereby shaping their identities. It is also through self-reflection that students with dyslexia can come to their own conclusions as whether biological and psychological entities or culture and history shapes their identity (see Section 3.2, especially Mortier *et.al.* (2011)). In the

absence of other tools for coping, self-reflection can be more effective than school resources, especially when they were limited or unavailable.

Some students reported using passive coping strategies to cope with their dyslexia, but over time they developed their own active coping strategies to handle the various challenges they faced being dyslexic. Dyslexic students with strong personalities were less likely to worry about being unique and used coping tools that worked for their distinctive learning differences. Having a strong sense of self can also help one deal with new situations (Ridley, 2015). Students with dyslexia could also use their knowledge and understanding to determine whether positive coping skills, such as resilience, or negative coping skills, such as bullying, could affect their identity. In addition to these factors, the effects of time, age, increased awareness, self-esteem, and self-acceptance, helped students with dyslexia develop their own coping skills.

The significance of an early diagnosis was identified through the analysis as another critical factor that could help students with dyslexia understand themselves. The majority of university students believed they were dyslexic and requested a formal diagnosis in secondary or primary school but did not receive one. A formal diagnosis could have aided them to better understand their learning differences and who they were. The majority of participants preferred an earlier diagnosis and would have accepted a diagnosis if made in secondary school. In addition to early screening and diagnoses, mentoring and highlighting the accomplishments of people with dyslexia can help build students with dyslexia identities. The use of a dyslexia label can also affect students with dyslexia identity. A strong finding was that some student participants wanted access to additional support, but without public identification as

dyslexic or being viewed as different from their peers, this tension can lead to a dilemma of difference.

Independence and freedom of participation in choosing their subjects can also have an effect on non-physical experiences of students with dyslexia within the activity system. The majority of university and secondary participants wanted to have autonomy in choosing their subjects for examination, which suggested that their own motivation had an impact on determining their academic and self-development. The activity system can determine the rules and values related to students choosing their subjects for external examinations. Dyslexic students may be expected to follow the guidance of their teachers to pass these subjects. The rules set up by an educational setting can determine a student's position in the activity system. When given the choice to choose their subjects, students with dyslexia are likely to be more engaged in their learning and be more motivated. Dyslexic students' abilities may, however, be determined by the object of the school, which affects teacher assessment and the school structure, and in some situations, teachers make academic decisions for their students. However, if the student with dyslexia advocates for their own choices, which is a coping tool, they are likely to influence their own education. The object of schools is likely to maximise academic excellence, and schools may do what they believe is in the best interest of their learners, even though this may conflict with how students with dyslexia view or feel towards the object. Some students with dyslexia may prefer to engage in creative subjects, while the school's object for students with dyslexia is to maximise engagement in core subjects to increase the likelihood of academic success as an outcome. The concluding chapter provides a conclusion and recommendations based on the research findings.

Chapter 10

Recommendations and Conclusion

10 Recommendations and Conclusion

10.1 Project overview

The current research sought to contribute to knowledge in inclusive education by providing an understanding of the psycho-emotional experiences of students with dyslexia in mainstream secondary classrooms from shared and distinct perspectives over different time periods. The reported research took place in an educational climate where there are tensions surrounding dyslexia's existence, and whether students with dyslexia should be treated differently from poor readers (Lockwood *et al.*, 2012; Elliott & Grigorenko, 2014). However, there is no single set of criteria for assessing reading ability, as reading is a complex, context-dependent, and ever-changing skill (Catts, 2018; Cilibrasi, & Tsimpli, 2020). The positionality that informed this thesis is that both individual and environmental factors can shape the experiences of students with dyslexia (Amineh & Asl, 2015). The bio-psycho-social model and socio-cultural approach (CHAT) can be useful in exploring the experiences of students with dyslexia in mainstream secondary classrooms, as social factors are integral to both approaches (Gable, 2014; Sannino & Engeström, 2018). The bio-psycho-social model emphasises the individual (biological & psychological factors), while the socio-cultural approach foregrounds social interaction culture and history. Integration of a bio-psycho-social model within a socio-cultural approach provides an understanding of how people construct meanings about the individual experience of dyslexia through collective interaction. The way biological differences are perceived also depends on the individual's particular cultural or social context, which in turn shapes their experiences. Both these approaches consider the interaction between person and context.

This study drew on different perspectives on dyslexia in a qualitative multi-temporal case study designed to address the research questions: RQ 1. What do students with dyslexia who are now attending university in South West England say about their past psycho-emotional experiences in mainstream secondary classrooms? RQ 2. What do current students with dyslexia say about their psycho-emotional experiences in mainstream secondary classroom as an activity system in South West England? RQ 3. What do educators say about students' psycho-emotional experiences in mainstream classrooms in South West England? RQ 4: What are the implications of these three perspectives for the development of strategies to support the psycho-emotional needs of students with dyslexia in mainstream secondary classrooms. Participants included five secondary school students, one TA and four teachers who participated in semi-structured interviews, and six support staff and eight university students in separate focus groups. The data was thematically analysed deploying Braun and Clarke's (2016) approach but adapting this to the needs of the study. Five stages were developed in an iterative process: initial coding, an expanded coding strategy, producing and revising themes, identification and refinement of key themes, and consolidation of the overarching narrative before writing up. The subsequent conclusion is divided into five main parts: summary and discussion of the three key findings, contribution to knowledge, research limitations and implications for future research, recommendations and concluding remarks.

10.2 Summary and discussion of the main findings

This study supports the argument that inclusion is an ongoing struggle (Allan, 2007). The three main themes were structures, relationships, and identity. The sub-themes within a structure theme were participation tools related to aspects of division

of labour and tools, coping skills linked to tools, support staff connected to division of labour and tools, and discrimination and practices involving separation from peers associated with the community. The most salient sub-themes identified under a relationships theme were teachers' understanding, damaging relationships, praise, encouragement, and rapport building. The final overarching theme of identity pulls these two themes together to understand how relationships within a particular structure influence the identity of students with dyslexia. The three key themes reflect the combined framing of findings through a bio-psycho-social model and activity systems theory. Structures, for example, included the physical space and routine practices constructed based on participants' own socio-cultural background. In a dyslexia and learner friendly or inclusive classroom, relationships are crucial in supporting and enabling personality development and encouraging positive psycho-emotional experiences. A particular relational space allows students with dyslexia to develop these relationships, which in turn influences their identity. The identity theme comprised the sub-themes of constructive labelling, early diagnosis, and developing individuality as a dyslexic student.

Dyslexic students are in a learning environment where the object is not always aligned with their own motivations or sense of purpose in the classroom. The rules and values of the classroom can be largely shaped by the ethos of the school within which the classroom is situated. A classroom that is not attentive to the interests of students with dyslexia can mean that establishing or managing relationships becomes more difficult for these students. A system that does not fully cater to students with dyslexia needs, while also shaping their identity, may negatively affect their development. Based on the analysis of students' participants responses informed by

CHAT and IfI, and summarised above, three main arguments can be proposed to improve practice.

Firstly, individual identity is constructed in social contexts where others may be unsure of what dyslexia is or what makes students with dyslexia different. Depending on how a student interacts with their environment and how teachers and support staff connect with them, developing a positive identity can be problematic for these students. In some cases, students with dyslexia face difficulties due to a lack of understanding from teachers and inconsistent messages about the nature of dyslexia from teachers may cause identity issues. Additionally, in a mainstream secondary classroom as an activity system, there can be tensions between the way labels are used in teaching strategies or relationships between teachers and peers and the value placed on inclusion practices.

Dyslexic students' understanding of their learning difference can shape how they view labels and influence identity formation. For these students, being similar to their peers is key, and some may fear being seen as different. Data analysis identified that some teachers may lack adequate understanding of the dyslexia label and vary in their capacity to recognise both visible and invisible signs of this learning difference. A dilemma of difference can occur, for example, if the student with dyslexia wants support but the teacher lacks understanding that the student is reluctant to be singled out as different due to being dyslexic (Norwich, 2007, 2009). Students with dyslexia may find it harder to understand themselves when teachers focus excessively on labels, such as 'special', or routine pedagogical practices, such as reading aloud, without recognising or supporting their needs and strengths. The attitude of peers towards students with dyslexia and difference can also shape identity formation, as students with dyslexia want to appear like their peers.

Secondly, the school's values may include increasing the participation of students with dyslexia in learning, so that they have a voice, while simultaneously limiting their ability to make choices, for example of particular GCSE subjects. Decisions about choice of subjects are usually guided by the system, and students with dyslexia being part of that setting are required to conform. As reported by some university and secondary school participants, MFL is still not available to all students with dyslexia in mainstream secondary classrooms today, since it is incompatible with the rule that subject choice should maximise the result outcome, and with more focus on mandatory subjects such as Math and English. Additionally, whether the student shows strength in creative areas or subjects can clearly contribute to their identity formation. "The object is the constantly reproduced purpose of a collective activity system that motivates and defines the horizon of possible goals and actions" (Daniels, 2004, p. 190). Based on this premise, the object of the school (maximising the results outcomes in core subjects) can take priority over creative endeavours or inclusive practices.

Practices that do not promote inclusive values can create tension between rules of participation and autonomy and maximising GCSE passes, as expressed in the perspectives of present students and those reflecting on their past experiences in mainstream secondary classrooms. Both university and secondary school participants reported they felt empowered when allowed to make their own choices regarding GCSE subjects. The freedom to choose which subjects to study is an important part of a dyslexic student's identity and can affect their perception of themselves and how they cope with being dyslexic. Despite these challenges, some students with dyslexia are more likely to be motivated by their own goals, which may not accord with the school's object but are beneficial in terms of identity. The way students with dyslexia

in both the past and present contexts viewed themselves, and the object of the school, determined their actions, such as the use of coping skills, and shaped their identities.

Finally, students with dyslexia learnt over time how to manage being in a system that was failing to meet their needs, by developing strategies for themselves. Self-advocacy as a coping skill gave some university and secondary participants a voice, increased their confidence and encouraged positive self-esteem. This key finding corroborates previous studies that encourage students with learning differences to articulate their views, thereby affecting their identity and experiences (Edmonds, 2013). In this research, self-advocacy enabled students to request modifications that facilitated their learning. This coping skill led to certain educational outcomes for some past and present student participants, who openly articulated their dissatisfaction with being confined to foundation papers. Self-reflection on identity was another coping strategy, mainly used by older students with dyslexia to help them develop a positive sense of self – a strategy which enhanced self-understanding.

Active and passive coping skills varied depending on whether the participant was reflecting on current or past experiences. Both types of participants used self-advocacy, although in different ways with different outcomes. For example, a university participant reported using self-advocacy skills to secure her choice of subjects, which had implications for her academic performance, her teacher's pedagogic strategies, and achievement of university entry qualifications. A present secondary participant was adamant that she was not 'special' but wanted to be supported with resources specifically tailored for students with dyslexia. Active coping, such as self-advocacy and reflection, was linked to the dyslexic student's

ability to construct their own coping strategy to mitigate the challenges of participating in specific learning activities. Passive coping strategies were also reported, such as daydreaming and switching off, which impacted classroom relationships with teachers and peers. Such strategies had implications for their academic performance and how included these students felt within that learning environment.

The majority of secondary and university students expressed a desire to share and develop their coping skills with peers who were also dyslexic and had similar experiences. University students who reflected on their past stated that the feeling of being different could be minimised if they felt part of a peer community that understood their strengths, weaknesses and celebrated their achievements.

10.3 Contribution to knowledge

Firstly, the findings add depth to IfI developed by Booth and Ainscow (2011) to support schools towards inclusive provision; there are clear connections between its three dimensions of culture, policies, and practice and the three main themes of this study (relationships, structures, and identity) outlined above. The IfI culture dimension is connected to the relationships theme in the study, since the psycho-emotional well-being of students with dyslexia can be understood in relation to cultural tools that guide people's interactions/relationships within various social contexts, including mainstream secondary schools. The IfI policies dimension is connected to the structures themes since there is an interplay between structures and systems that teachers and students work within. All three IfI dimensions culture, policies, and practice are connected to the identity theme, as they all shape the

experiences of students with dyslexia and contribute to the formation of their personal identities.

Secondly the adoption of a cultural-historical theory in relation to dyslexia is original and offers a novel approach to understanding the experience of young people coming to terms with their own difficulties with reading. CHAT assumes a dialectical relationship between the person with a disability and the surrounding society and, when applied in the context of the secondary classroom in this study, offers important insights into coping mechanisms and identity formation in young people with dyslexia, whether this is diagnosed or not. Using Vygotsky's concept of the social formation of mind foregrounds the importance of social interactions and participants in this study have shown how interacting with teachers and peers, many of whom did not understand dyslexia, shaped their developing sense of self. Furthermore, CHAT's systemic approach to context helped to highlight the differences in understandings of the purpose of schooling and a mismatch between values of inclusion and an object of maximising narrowly-defined pupil outcomes. In this study, this led to difficulties for students with dyslexia. For example, students with dyslexia were motivated and wanted to set their own goals regarding their choice of subjects but faced difficulties choosing these subjects because of competing motives at a system level to maximise GCSE grades; this shaped their experiences and outcomes, but possibly also constrained their expression of their own identity. The way schools viewed dyslexia therefore impacted how they supported and shaped students' identity; dyslexic students were likely to be motivated by their own goals, but this did not always accord with the school's object.

Thirdly the findings from this research can contribute to research-informed strategies that can be implemented in mainstream secondary schools to support

students with dyslexia. University participants in this study had a diverse array of coping strategies, which can be effectively shared to provide meaningful support for others. This study has shown the importance of the need to develop or improve coping strategies; younger students in particular need to understand what is dyslexia. Indeed, all students need to understand dyslexia, so they can act sensitively towards classmates and help to promote positive dyslexic identities.

This study has highlighted the need for educators in mainstream secondary to better understand dyslexia and its impact on learning. The provision of training opportunities can be expanded to encompass teachers at the post-secondary level, given that university students have reported ongoing challenges in areas such as reading aloud in a classroom setting. Essentially, this awareness can influence the identity formation of students with dyslexia and their psycho-emotional experiences beyond the secondary level.

A further contribution is the finding that students' subject choices are not always informed by their future plans, as enshrined in the Code of Practice, but instead by the school's need to demonstrate good GCSE grades. This links to surfacing considerations of community within the activity theory model. The object of an activity system is the desired outcome of the activity. In this case, the object is for students to make subject choices that will help them attain their future plans. The subjects that students choose will have a significant impact on their potential prospects, so it is important that they make choices that are aligned with their interests and ambitions. Choosing their own subjects will also help students stay motivated and engaged in their learning. It also helps them develop the skills and knowledge they will need to do well in their chosen careers. The school's need to demonstrate good

GCSE grades is a value that shapes (constrains) activity. Mediating artifacts are tools or resources used to achieve the object of the activity. In this case, the mediating artifact is the school's grading system and the grades become the object in themselves instead of a tool to support action towards the object of pupils making progress. The grading system can be a helpful tool for students to use to track their progress and ensure that they are on track to achieve their goals. However, the grading system is not the only thing that matters and risk becoming an object in themselves. Grades are just one measure of success. One's understanding or perception of the object within the activity system will influence their actions within the system. If a student believes the object of the activity is to get good grades, they are more likely to choose subjects they think will help them acquire that goal. However, if a student believes the object of the activity is to learn and grow, they are more likely to choose subjects that they like and that will challenge them. The community within the activity theory model refers to the social and cultural context in which learning takes place. This includes the school, the family, and the wider community. It is important to consider the needs of the community also when making decisions about subject choice. By making certain that students' subject choices are informed by what they want and the needs of the community, it can help to ensure that students with dyslexia have the opportunity to maximise their potential.

The strategies mentioned here and below as recommendations can be seen as ways that support inclusive provision for students with dyslexia through considering aspects of CHAT. For example, the strategy of providing spaces for collaboration through DWR can be interpreted as a means of supporting the development of the activity system by providing opportunities for participants to interact and share their knowledge and expertise. To ensure that students' subject choices are informed by

their future plans, and not by the school's need to demonstrate good GCSE grades, is grounded in one's understanding or perception of the object within the activity system. Finally, offering opportunities for "experienced" individuals with dyslexia to speak to younger learners with dyslexia about coping strategies can be understood through the lens of social formation of the mind and shared cultural tools.

10.4 Limitations and implications for future research

The current study generated several significant findings related to the psycho-emotional experiences and views of students with dyslexia and teachers in mainstream secondary classrooms. However, some methodological aspects outlined below should be considered in future research; these relate to focus groups, semi-structured interviews, sampling strategy, and the COVID-19 pandemic.

10.4.1 Focus groups

Video recording and focus group settings may have inhibited university participants from raising sensitive issues or describing difficult personal memories due to concerns around anonymity and confidentiality. More one-on-one semi-structured interviews in future research on this topic might increase confidence in this area and readiness to discuss sensitive matters.

10.4.2 Semi-structured interview

Semi-structured interview data were based on a series of context-shaped interactions. Future research could gather data from participants over a longer period to overcome possible limitations such as less detailed responses due to the relatively brief nature of the interviews.

10.4.3 Sampling selection/strategy

Pragmatic considerations drove the selection process. While a range of participants was achieved, some voices were likely excluded. Gatekeepers chose which secondary school students and educators would be invited to participate. It is also possible that COVID-motivated recruitment strategies influenced who came forward. Future studies would benefit from direct contact with, and selection of, participants and obtaining prior knowledge about the sample as needed.

Additionally, insights from an interpretivist perspective reflect a researcher's positionality and experience and cannot be applied to every person or circumstance (Cohen, Manion & Marison, 2017; Mack, 2010). The results of the study were not intended to reflect all students with dyslexia and teachers in mainstream secondary classrooms, or locales other than the South West of England. Participants had different socio-economic or socio-cultural backgrounds, but the majority were from the White British population, suggesting a limitation in terms of diversity. Future research could achieve samples of students and teachers from different mainstream secondary institutions in different locales in order to include diverse cultures, ages, genders, and backgrounds, and contexts other than mainstream secondary classrooms could be researched.

10.4.4 COVID-19 pandemic

Due to the COVID-19 pandemic, the researcher had problems with recruitment and data collection. The recruitment process was challenging, but the way recruitment issues shaped the sample was kept in mind when interpreting the findings. Data collection efforts were hindered by school closures, therefore all data gathered from school and university students, educators involved participation from home.

Future research could be conducted over the school year to minimise disruption due to lockdowns. Similarly, data collection could be replicated with other university students with dyslexia representing a wider range of academic disciplines, and with educators who engage with dyslexic students from different schools and backgrounds. Expanding the range of participants was challenging under lockdown and pandemic conditions. The original research strategy had included a follow up focus group with educators to discuss the research findings and invite their feedback. However, COVID-19 restrictions prevented follow up session and future studies could include follow up interviews to explore the findings and secure feedback from participants, which could contribute to knowledge in inclusive education. Video diaries were planned to collect data from secondary school participants on their experiences over a one-week period, while learning in mainstream secondary classrooms, but this plan was also abandoned following COVID-19 restrictions and school closure. Video diaries, particularly over a longer timeframe, would have offered participants an interactive method of participation that acknowledged their vulnerability. Again, pandemic conditions prevented this possibility.

In some semi-structured interviews with secondary school participants, parents were present. In the future, it should be checked beforehand, especially with those from vulnerable populations, if they are willing to be interviewed without parental supervision where they meet the consent age requirement. If not, the investigator could find alternative methods of data collection, suited to the needs of the participant and the research question.

10.5 Recommendations

To look at this topic purely from traditional approaches, such as a medical or social model of dyslexia, is insufficient to understand the experiences of students with

dyslexia in mainstream secondary school. A bio-psycho-social approach, along with a socio-cultural perspective, adds a more in-depth understanding of the psycho-emotional experiences of students with dyslexia from an educator and student perspective. Since there is a dialectical connection between students with dyslexia and their locality, the researcher suggests that structures and relationships within the system can shape students' identity. The persons one interacts with in the system should have some idea of where that person is coming from as an individual, as well as their socio-cultural background and how they construct their social meanings in order for others to understand them. Without this knowledge, there can be false assumptions and misunderstandings about students with dyslexia. For example, the use of a dyslexia label and the type of support students with dyslexia need are often misunderstood by persons in the classroom. The researcher recommends educators understand that students have different attitudes to the dyslexia label and the publicity of their learning difference, which can be a complicated situation for educators to deal with. Therefore, awareness about individuality and how relationships and structures can shape identity is key.

As part of a holistic approach, more consideration should be given to how students are grouped. CHAT acknowledges the importance of community support, which is ingrained in the school's culture and can promote inclusive practices. Participants want to feel included at all times and most do not want to be separated from their peers. Therefore, grouping by ability should consider the interaction between the person and the context. Tensions can occur and are indicative of a dilemma of difference if students with dyslexia wish to be part of the whole class but

find it difficult, causing them to feel different from their peers. The researcher recommends educators be aware of these tensions and try to reduce them.

It should be recognised that the interaction between the person with disability and the surrounding society is not always positive. Some practices may be interpreted as discriminatory, not inclusive, which can shape students with dyslexia identity. Practices that separate students with dyslexia from their peers which they choose to engage in, such as some reasonable adjustment, can have a positive impact on their experiences. Reasonable adjustment alone is insufficient, but it may be useful when used to reduce the stress of taking examinations in large spaces and foster positive experiences. Practices depicted as discriminatory may be predominantly for the benefit of school performances data, rather than the psycho-emotional well-being of these students, therefore should be avoided. Teaching tools, for example reading aloud, that require students to verbally respond in the general class should be assessed in advance to determine if it will cause the student to have a negative experience. Educators should build a rapport with dyslexic students and give them the opportunity to share how they feel about teaching tools. With this awareness, teachers can then tailor their tools to meet the needs of these students. However, if a concerned parent feels their child is not receiving sufficient support and believes interventions should be targeted or individualised, this may also motivate them to seek a professional diagnosis, which can be a tool to get support (Griffiths & Stuart, 2013).

To reduce discriminatory practices and build a strong inclusive school ethos, there needs to be a collaborative effort when engaging with the school community. Students with dyslexia get frustrated when the school they transition to has no knowledge of them being dyslexic, which may have implications on the type of support they receive and how their identity is shaped. Policy and programs need to be

put in place to standardise the transition process of students with dyslexia from primary to secondary school, especially records that speak to the psycho-emotional wellbeing of these students.

Coping techniques that students with dyslexia use are shaped by their community and value system. Educators can help students develop confident attitudes and strong values, so they are able to create coping strategies that best meet their needs and develop positive identities. Additionally, in an inclusive or dyslexia-and learner-friendly classroom, a social space for students with dyslexia to regularly meet with mentors could shape positive psycho-emotional experiences. Mentors with relatable dyslexic personalities could share their experiences of being dyslexic with attendees. This type of interaction could encourage positive self-esteem and confidence in students with dyslexia.

The role that educators as subjects play in the school system as part of the community is not given enough priority. According to Booth and Ainscow (2002), inclusion is about creating learning communities that are supportive and engaging for all students and staff. The researcher recommends educators regularly participate in training and professional development on current, effective, and appropriate ways to support students with SEND, including students with dyslexia. While also celebrating both student and teacher achievements that encourage inclusive practices. Educators cannot be expected to know how to best support students with dyslexia until they actively engage with ongoing educational opportunities and are recognised for their efforts. Dyslexia awareness and teacher training can be periodically provided throughout their profession to ensure they are knowledgeable of the most recent findings and studies on dyslexia (Knight, 2018). However, Elliott and Grigorenko

(2014) suggest dyslexia should be treated like any other reading problem, which may impact how changes and support are incorporated in mainstream secondary schools.

Students with dyslexia also play an important role as subjects in the system. Most of the participants did not want to be placed in the general reading problem category and were adamant that dyslexia is real, so they should be recognised as such and given adequate support. The researcher recommends that policies and programs recognise and support dyslexia as a specific learning difference and provide access to available resources without much difficulty, considering the relationship between the person and the setting. Without this in place, students with dyslexia may feel they are not sufficiently supported, and their voice limited.

Schools should not restrict participants' engagement in a wide range of subjects, including creative subjects, based on their progress in core subjects, which students with dyslexia sometimes find difficult. Engagement in creative subjects such as dance, drama and music can produce positive experiences for students with dyslexia. In an inclusive classroom, educators can encourage students with dyslexia with a passion for the arts to join creative subjects, while mandatory subjects are provided with extra support. Engagement in creative subjects such as dance, drama and music can produce positive experiences for students with dyslexia.

Teaching assistants can be seen as both or either tools/subjects in the division of labour. Their role and usefulness within the classroom is based on how they are viewed as part of the structure within the system. The researcher recommends that students with dyslexia should be given a clear understanding of the role of the TA, especially the benefits of having that support, as well as how that support will be implemented. The TA should be aware that providing support for a student with

dyslexia is not just about providing academic assistance. It is also about understanding the student's interaction with their environment and how that shapes their identity. The TA should be sensitive to the student's needs and provide support in a way that respects the student's identity.

The object of the school is not always clear, because there is little consensus, poorly agreed or contested object. The participants shared different viewpoints on the object of school, which can shape the communal relationship between the person with disability and their surroundings. The researcher recommends that school values can increase the participation of students with dyslexia in learning, so that these students have a say and not limit their ability to make academic choices. For example, students should feel part of the process when choosing GCSE subjects. When this is done, they are likely to be motivated in their learning and geared towards academic achievement, as well as have positive identities.

Offering opportunities for “experienced” individuals with dyslexia to speak to younger learners with this learning difference about coping strategies could be beneficial in a number of ways. It could help younger learners feel less isolated. When they hear their peers with dyslexia talk about their journey to academic success including overcoming their challenges, it can give younger students hope and motivation to excel. Experienced students with dyslexia could share practical advice and tips on how to manage being dyslexic. For example, they may share different learning strategies or how to be self-advocates. This strategy can help younger students with dyslexia improve their self-image and self-worth and develop a more positive attitude towards being dyslexic. Experienced students with dyslexia could share their experiences on how they developed a positive sense of self and how it shaped their self-worth as well and where to find more information and resources

about dyslexia. They could also talk about the importance of having a positive attitude and how it helped them succeed in school. These open sessions to learn about dyslexia help to develop communal spirit and understanding.

Students with dyslexia should be encouraged to share their experiences with educators, so they can better support them. A possible strategy could involve planning developmental work research (DWR) sessions, where the researcher shares comments from young people with dyslexia from both schools and universities with educators in schools and further and higher education about what helps them learn. DWR is based on CHAT and values collaborative creativity and guidance towards expansive learning at system level. Contradictions within activity systems can be brought to the fore in the sessions and can lead to expansive learning (Engestrom *et al.*, 1999). These sessions can be carefully designed using a workshop-based format that is interactive, safe, and respectful for all participants. Educators are encouraged to provide feedback on the comments from students, and this can help ensure that the information is accurate and helpful. This strategy is linked to the importance of understanding the psycho-emotional effects of dyslexia by educators to support young people at a crucial stage in their lives when they are forming their identities. There are many dyslexia myths and misconceptions. According to Daniel (2023), some misconceptions about dyslexia are that students with dyslexia reverse their letters, are always highly creative, have motor skills difficulties or clumsiness, need coloured overlays or coloured lenses to improve reading skills and face difficulties when reading text in specific text fonts. DWR sessions could for example include examination of myths and misconceptions about dyslexia, which can lead to change individually (e.g., for the student with dyslexia) or school level (e.g., inform accepted

practice) to dispel myths or misconceptions that can have an adverse effect on the experiences and identities of students with dyslexia.

10.6 Concluding remarks

In this research, tensions have been identified regarding inclusive practices in mainstream secondary classrooms. Expansive learning from recognising and investigating tensions can lead to the learning of new ideas that can shape future practices (Engeström & Glăveanu, 2012). It is hoped that educators, scholars, policy makers, advocates, parents, etc. will learn about the tensions identified here and make changes to the system that will help resolve them. This study recognises that a current strategy for some educators in mainstream classrooms is to promote inclusive learning by increasing support to students with dyslexia (DfE, 2015). Social and cultural interactions construct behaviour and create learning (Russell (2012), and educators are likely to have a strong influence in creating inclusive classrooms and may shape the psycho-emotional experiences and identity of students with dyslexia (McKernan & Ratcliffe, 2002). Bøttcher and Dammeyer, influenced by Vygotsky's concept of incongruence, have drawn attention to a mismatch between individual body functions and context (Bøttcher and Dammeyer, 2012). Their thinking feeds into this research and have helped situate the researcher's findings and participants views on disability. Therefore, current and changing practices in supporting students with dyslexia should consider include teachers' (and parents') understanding of dyslexia as a learning difference or disability that does not fit with the expectations of what should be achieved in a mainstream secondary classroom. This mismatch can have consequences for how the classroom is experienced by students with dyslexia, which may in turn affect their well-being as well as their academic performance (Reid,

2019). It is important to realise this mismatch between the different ways that students with dyslexia learn and the overriding focus on a limited range of outcomes.

Therefore, in inclusive settings, some teachers may be aware and competent to respond to the educational needs of students with dyslexia, which could possibly shape students' identity and learning.

Gibson (2006) suggests students with dyslexia should have a voice in school, and this is echoed throughout this study. Any ordinary classroom can be transformed into an inclusive environment (Elliot, Davidson & Lewin, 2007). However, creating such classrooms requires understanding of the complexities of the learning environment in which inclusive practices are to be implemented and obstacles may be encountered (Shyman, 2015; Haug, 2017). UNESCO (2016) recommends that mainstream secondary classrooms assess their own situations and plan how to create an inclusive learning environment. Understanding the complexities of the mismatch between what teachers and students might understand education needs further exploration as well.

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List of Appendices

Appendix A: University students' information sheet

INFORMATION SHEET UNIVERSITY STUDENTS

Research title: Understanding the psycho-emotional experiences of secondary school students with dyslexia from student and teacher perspectives.



UNIVERSITY OF
PLYMOUTH

PROJECT CONTACT DETAILS:

Researcher: Kerissa Nelson (email address: kerissa.nelson@plymouth.ac.uk)

Name of Supervisors: Dr Elizabeth Done (email address:

elizabeth.done@plymouth.ac.uk)

Dr. Janet Georgeson (email address:

janet.georgeson@plymouth.ac.uk)

Location: Rolle Building 5th floor, University of Plymouth, Drake Circus, Plymouth, PL4 8AA

What is the reason for this research: Hello, we are inviting learners who are dyslexic to share their feelings and experiences about being a student in secondary school. You are asked to participate in a 90-minute focus group meeting via Zoom (an online meeting facility) to discuss the research topic. There will be a maximum of seven other students in the session. Participants will be given a copy of the questions, the date and time of sessions in advance, and advice on how to join the group online. If there is anything you want to ask me about the questions or my research, feel free to contact me.

Your permission: Your participation is entirely your decision; in addition to this, you are asked to sign an informed consent form. Please remember the research is not connected to your studies in any way.

Why take part: As a participant in this study, you get to share your experiences in a safe online space about being dyslexic in secondary school. The information you give me may help improve the feelings, experience, and academic achievement of future students with dyslexia and help inform teaching practices.

Right to stop being a part of study: If you decide you no longer want to take part in the study inform me as soon as possible. You do not have to explain your decision and you will not face any criticism. During our discussion you can choose not to answer specific questions or ask for the audio recording to stop. You can say you do not want what we discussed to be included in the study before your data have been analysed. If you have a complaint about the conduct of the research, please contact Claire Butcher, Research Administrator to the Faculty Research Ethics and Integrity Committee (claire.butcher@plymouth.ac.uk).

Privacy: The information you provide will only be used for the purpose of this study and academic activities. However, at no point will your name be used. I will be the only one who has access to your info which will be kept safe for at least 10 years while always observing the General Data Protection Regulation.

Debriefing: You can access key research findings via University of Plymouth Inclusion Node site <https://www.plymouth.ac.uk/research/inclusion-research>

Thank you for your interest in this project

Appendix B: Secondary school students' information sheet

INFORMATION SHEET SECONDARY STUDENTS

Research title: Understanding the psycho-emotional experiences of secondary school students with dyslexia from student and teacher perspectives.



**UNIVERSITY OF
PLYMOUTH**

PROJECT CONTACT DETAILS:

Researcher: Kerissa Nelson (email address kerissa.nelson@plymouth.ac.uk)

Name of Supervisors: Dr Elizabeth Done (email address:
elizabeth.done@plymouth.ac.uk)

Dr. Janet Georgeson (email address:
janet.georgeson@plymouth.ac.uk)

Location: Rolle Building 5th floor, University of Plymouth, Drake Circus, Plymouth,
PL4 8AA

What is the reason for this research: Hello, we are inviting learners who are dyslexic to share their feelings and experiences about school. You will be asked to record something each evening for a week in a video diary reflecting on our experiences during the school day and when doing homework. As a part of the study, you will receive a link to the video diary which you can access on your phone, tablet or computer, all recordings will then be sent to me using this link when school resumes (not actioned). For now, your being asked to participate in a semi-structured interview for no more than 45 minutes via Zoom (an online meeting facility). If there is anything you want to ask me about the questions or my research, feel free to contact me.

Your permission: Your sharing is entirely your decision. You are asked to sign an informed consent form. Please remember the research is not connected to your schoolwork in any way.

Why take part: As a participant in this study, you get to share your experiences in a safe digital space to talk about being dyslexic in the classroom. The information you give me may help improve the feelings, experience, and academic achievement of future students with dyslexia and help inform teaching practices.

Right to stop being a part of study: If you decide you no longer want to take part in the study inform me or your SENCO as soon as possible. You do not have to explain your decision, and you will not face any criticism. You can choose at any time to stop doing the video diaries or semi-structured interview and have whatever saved recordings removed as long as your data has not yet been analysed. If you have a complaint about the conduct of the research, please contact Claire Butcher, Research Administrator to the Faculty Research Ethics and Integrity Committee (claire.butcher@plymouth.ac.uk)

Privacy: The information you provide will only be used for the purpose of this study and academic activities. However, at no point will your name be used. I will be the only one who has access to your info which will be kept safe for at least 10 years while always observing the General Data Protection Regulation.

What next: You will receive a thank you letter at the end of the study and a website link to the findings.

Thank you for your interest in this project

Appendix C: Educators information sheet

INFORMATION SHEET EDUCATORS

Research title: Understanding the psycho-emotional experiences of secondary school students with dyslexia from student and teacher perspectives.



**UNIVERSITY OF
PLYMOUTH**

PROJECT CONTACT DETAILS:

Researcher: Kerissa Nelson (email address kerissa.nelson@plymouth.ac.uk)

Name of Supervisors: Dr Elizabeth Done (email address:

elizabeth.done@plymouth.ac.uk)

Dr. Janet Georgeson (email address:

janet.georgeson@plymouth.ac.uk)

Location: Rolle Building 5th floor, University of Plymouth, Drake Circus, Plymouth, PL4 8AA

The purpose of this research: I am inviting you to participate in two focus group discussions to share your experiences of teaching students with dyslexia in mainstream secondary classrooms (the follow up focus group was not actioned). There will be a maximum of 7 educators in each session. Sessions will be conducted via Zoom (an online meeting facility) which will last no more than 90 minutes for each session. Participants will be given the focus group guide, the date and time of sessions in advance, and advice on how to join the group online.

Informed consent: Your participation is entirely voluntary; you will be asked to sign an informed consent form. Please contact me as soon as possible if you have any queries before deciding whether to participate.

Benefits of taking part: This research gives you the opportunity to share your experience and understandings on the topic. It will help inform classroom strategies to improve the feelings, experience, and academic achievement of future students with

dyslexia. Your contributions may also help influence policy relating to mainstream classrooms and enhance the psycho-emotional experiences of this population of students.

Right to withdraw: You can discontinue participating in the study at any time and without giving a reason. You can choose not to answer specific questions or to ask for audio or video recording to stop. If you later decide that you do not want your data to be a part of the study, you can ask for it to be withdrawn up until the data have been analysed. My contact details are provided above if you need to reach me.

Confidentiality: Data will only be used for the purposes identified on this sheet and for related academic publications. Your name will not be included at any point in the analysis or reporting of findings. Data will be accessed by me only and, following the University of Plymouth's research ethics policy, data will be securely held for a minimum of ten years. General Data Protection Regulation means data will be stored on password protected computers or laptops and encrypted. British Educational Research Association (BERA 2018) ethical guidelines will be followed throughout the research process. Confidentiality and anonymity may be difficult to maintain in focus group sessions; participants will be encouraged to keep information shared in the sessions private. If you have a complaint about the conduct of the research, please contact Claire Butcher, Research Administrator to the Faculty Research Ethics and Integrity Committee (claire.butcher@plymouth.ac.uk)

Debriefing: Participants will have the opportunity to learn about the outcomes of the research through the University of Plymouth Inclusion Node site <https://www.plymouth.ac.uk/research/inclusion-research>

Planned outputs: Research findings will be published in peer reviewed journals, e.g., Journal of Research in Special Educational Needs and presented at conferences.

Thank you for your interest in this project

Appendix D: Informed consent form

Project title: Understanding the psycho-emotional experiences of secondary school students with dyslexia from student and teacher perspectives.

I confirm that (please tick box as appropriate):

- I have read and understood information about the study. ☐
- I have been given the chance to ask questions about the study and my participation. ☐
- I agree to take part in the study. ☐
- I understand I can ask you not to use my information within two weeks of it being collected without giving reasons or facing any judgement. ☐
- My privacy has been clearly explained to me. ☐
- I consent to the use of data collected. It has been clearly explained. ☐
- The uses of data for academic purposes have been explained to me. ☐
- I agree to have written records of the research and its findings being held by Plymouth University for a period of 10 years (in which all participants will be anonymous, unidentifiable, and unnamed). ☐

I, along with the Researcher, agree to sign and date this informed consent form.

Participant:

_____	-----	-----
Name of Participant	Signature	Date
_____	-----	-----
Name of Researcher	Signature	Date

Appendix E: Interview schedule for secondary school students

Topic: Understanding the psycho-emotional experiences of secondary school students with dyslexia from student and teacher perspectives.

Preliminary question A: What has your experience been like learning from home due to COVID?

Preliminary question B: Is there anything about home schooling during COVID that you would like to continue when you go back into face-to-face classroom?

1. How do you identity yourself? How do you want me to refer to you throughout the interview?
2. What is your understanding of dyslexia? Are you expected to perform as well as your peers? How does that make you feel?
3. Would you prefer to be identified as dyslexic or not? What would you prefer? How does this influence your participation in class?
4. What do you think is the reason for you going to school? And can you think of the most positive experience you have had while in secondary school?
5. Do you have friends? Do your classmates or friends know your dyslexic? How do they treat you?
6. Do you think it is important for teachers to know you are dyslexic and how you are feeling in the classroom? Why? Do they encourage you in any way? Do you feel comfortable asking them for help if needed?

7. Do you feel included in your class? Is there anything that your teacher does to help you to feel included? Is there anything that your classmates do help you feel more included? Are you ever bullied?
8. How would you feel if there was a set time each month for you and your classmates to learn and discuss learning differences including dyslexia and discuss ways to improve learning?
9. Do you feel included, valued, respected, or welcomed to participate in class by your teacher? Do you enjoy school overall? Why? Are staff other than your teacher friendly or help you to feel good about yourself? Does anyone provide any encouragement?
10. Are you a part of any clubs, societies or engage in any extracurricular activity? If so, how does this make you feel? Are extracurricular activities important to you?
11. How do you feel when your teacher helps you learn something new? Are you actively involved in your own learning?
12. Do you like reading out aloud or would you prefer not to participate in doing that?
13. Do you have a choice in your subjects? Which do you prefer and why?
How do you feel in your favourite classes?
14. Do you ask your peers for help, or do you give help to other students? Do you prefer to work in groups or by yourself? Why?
15. Are you separated at any time into a different class because you are dyslexic? How does that make you feel?
16. Do the class rules affect your experiences or how feel about yourself?
(rules) and how?

17. How do you feel about exams? How do you feel about formal exams being cancelled?
18. Where did you get the most support, in primary or secondary? Do you feel better learning in primary or secondary or is it the same? How did you feel moving from primary to secondary?
19. What can teachers do help you to have more positive experiences in your current school/class?
20. Of all the things we have discussed today, what would you say is the most crucial point you would like to share about you being dyslexic and school life?

Appendix F: Interview schedule for semi-structured interviews with educators.

Interview questions

- Can you introduce yourself and say how long you have been in teaching? Why did you choose to become a teacher? What has your experience been like? What has your teaching experience been like throughout the pandemic?
- What is your understanding of dyslexia?
- What is your understanding of psycho-emotional experiences?
- Do you think your understanding of dyslexia affects the way you view the psycho-emotional experiences of students?
- What do you believe are some of the psycho-emotional experiences of dyslexic students in a mainstream classroom? & Are they important?
- What context or situations do you believe have influenced dyslexic students' psycho-emotional experiences while being a part of a mainstream classroom?
- Have any of your dyslexic students ever shared their reasons for coming to school?
- Do you think students' actions, feelings and experiences are dependent on how they view school?
- What do you think it is like for other students being in a classroom with students who identify as being dyslexic? Are these students comfortable? Do you think dyslexic students are comfortable? Do you think this can affect their learning? How?
- Do class rules influence the psycho-emotional experiences of dyslexic students?
- What psycho-emotional support do you provide in your classroom?

- What improvements would you suggest could be implemented to provide more psycho-emotional support in your classroom?
- What are your views on peer-to-peer learning and collaborative learning and its impact on the psycho-emotional experiences of students with dyslexia?
- Have you heard about dyslexia-friendly classrooms? What are your views on it?
- Of all the things we have discussed today, what would you say are the most critical issues you would like to share about the psycho-emotional experiences of secondary school students with dyslexia in mainstream classrooms.

Appendix G: Focus group guide for sessions with university students

FOCUS GROUP DISCUSSION GUIDE SESSION ONE (University Students)

Facilitator notes

This document is a guide to the principal themes and issues to be covered. Questions can be modified and followed up in more detail as appropriate.

Introduction (4 minutes)

- Introduce myself and thank them for participating in the focus group.
- Explain that the focus group discussion is designed to explore their viewpoint about the feelings and experiences of secondary school students with dyslexia in mainstream classrooms.
- The discussion will last a maximum of 90 minutes.
- Participation is optional and they can ask to be removed from the discussion or decline to answer specific individual questions at any time should they wish.

Confidentiality and Consent: (3 minutes)

- Explain that the findings will be written up as part of submission for my PhD dissertation which may be published.
- Any views and quotes used in the study will be combined with views and quotes from interviews and other focus groups and names will not be used (nor will anything else that could identify them).
- I would prefer to record the session as this helps me to capture exactly what participants have said; ask if they are comfortable with that.
- Ask participants to verbally confirm that they understand the purpose and confidentiality of the research and that they are happy to take part.
- Ask participants if they have any questions.

Ground rules discussed (3 minutes)

- Do not hold back. It is safe for you to freely share your opinions without judgement.
- There is no such thing as a bad statement, all responses are welcomed.
- We will engage in constructive/productive dialogue and feedback.
- No sidebars (separate conversations, or body-language sidebars like eye-rolling, etc.).
- Respectful where disagreements may occur.
- You can ask questions for clarity at any time.
- One speaker at a time.
- If you need to answer your phone or talk to someone outside the group, please mute zoom.
- Do not worry if there is a pause in the discussion for a few seconds we can use that time to reflect a bit.

Opening questions (5 minutes)

- Would you like to share your name?
- How do you identify yourself?
- How do you want me to refer to you throughout the discussion?
- What is your understanding of dyslexia?

Introductory question (5 minutes)

- Give participants a couple of minutes to think about their past feelings and experiences being dyslexic in mainstream secondary classrooms. (Think about your classroom or school environment)

Guiding questions (40 minutes)

- Has your understanding of dyslexia impacted how you felt being a dyslexic student in secondary school?
- What do you think is the reason for going to school?
- Do you think your actions, feelings and experiences were dependent on how you viewed school?
- Can you think of any specific situation related to you being dyslexic that influenced your feelings and experiences while in school?
- What do you think it was like for those surrounding you in a mainstream classroom? friends, classmates, peers?

Guiding questions continued (20 minutes)

- Do you think it is important for teachers to know you are dyslexic and how you are feeling in the classroom? Why? Do they encourage you in any way? Do you feel comfortable asking them for help if needed?
- What psycho-emotional support would you have wanted to be in a mainstream classroom? Each person makes a list of at least three ways then we will come together and make a note of them and discuss.
- What are your views about a dyslexia friendly classroom?

Concluding question (5 minutes)

- Of all the things we have discussed today, what would you say are the most critical issues relating to past feelings and experiences of being dyslexic in mainstream secondary classrooms.

Summary (5 mins)

- Summarise key points.

- Ask if there is anything that I have missed.

Thank participants

Appendix H: Focus group guide for educators

FOCUS GROUP: DISCUSSION GUIDE SESSION (Teachers and TAs)

Facilitator notes

This document is a guide to the principal themes and issues to be covered. Questions can be modified and followed up in more detail as appropriate.

Introduction (5 minutes)

- Introduce myself and thank them for participating in the focus group.
- Explain that the focus group discussion is designed to explore their viewpoint about the psycho-emotional experiences of secondary school students with dyslexia in mainstream classrooms.
- The discussion will last a maximum of (90 minutes).
- Participation is optional and they can stop the interview or decline to answer specific individual questions at any time should they wish.

Confidentiality and Consent: (5 minutes)

- Explain that the findings will be written up as part of submission for my PhD dissertation which may be published.
- Any views and quotes used in the study will be combined with views and quotes from other interviews and focus groups and names will not be used (nor will anything else that could identify them).
- I would prefer to record the session as this helps me to capture exactly what participants have said; ask if they are comfortable with that.
- Ask participants to verbally confirm that they understand the purpose and confidentiality of the research and that they are happy to take part.

- Ask participants if they have any questions.

Ground rules discussed (5 minutes)

Introductory question (20 minutes)

- Can you introduce yourself to the group say how long you have been in teaching and why you chose to be a teacher or a TA?
- What is your understanding of dyslexia?
- Do you think your understanding of dyslexia affects the way you view the psycho-emotional experiences of students?
- What has your experience been like giving support to students with dyslexia during the pandemic?

Guiding questions (40 minutes)

- What do you believe are some of the psycho-emotional experiences of dyslexic students in a mainstream classroom?
- What context or situations do you believe have influenced dyslexic students' psycho-emotional experiences while being a part of a mainstream classroom?
- What do you think are the reason for students going to school?
- Do you think students' actions, feelings and experiences are dependent on how they view school?
- What do you think it is it like for other students surrounding students with dyslexia based on your experience as a teacher?

Break time (15 minutes)

Guiding questions continued (20 minutes)

- What psycho-emotional support do you provide in your classroom?

- What improvements would you suggest could be implemented to provide more psycho-emotional support in your classroom?
- How often do you collaborate/discuss with the classroom teacher to ensure that the psycho-emotional needs of dyslexic students are met?
- What further training do you think you may want or need to increase the level of psycho-emotional support that you can give to students with dyslexia?
- Have you ever heard the concept dyslexia- and learner-friendly classroom?
Any thoughts on this?

Concluding question (10mins)

- Of all the things we have discussed today, what would you say are the most critical issues you would like to share about the psycho-emotional experiences of secondary school students with dyslexia in mainstream classrooms.

Appendix I: Confirmation of ethical approval from the University of Plymouth

19 July 2019

Kerissa Nelson
Plymouth Institute of Education
Faculty of Arts and Humanities
University of Plymouth

Dear Kerissa

Application for Approval by Education Research Ethics and Integrity Sub-committee

Reference Number: 18/19-259

Application Title: What are the psycho-emotional experiences of secondary school students with dyslexia in mainstream classrooms? Exploring the perspectives of students with dyslexia and their teachers.

I am pleased to inform you that the Education Research Ethics Sub-committee has granted approval to you to conduct this research.

Please note that this approval is for three years, after which you will be required to seek extension of existing approval. Please note that should any MAJOR changes to your research design occur which effect the ethics of procedures involved you must inform the Committee. Please contact Claire Butcher on (01752) 585337 or by email claire.butcher@plymouth.ac.uk

Yours sincerely



Professor Jocey Quinn

Chair, Education Research Ethics Sub-committee
Plymouth Institute of Education
Faculty of Arts and Humanities

Appendix J: Updated ethics approval letter due to covid 19 restrictions regarding fieldwork.

30 March 2020

Kerissa Nelson
Plymouth Institute of Education
Faculty of Arts, Humanities and Business
University of Plymouth


Dear Kerissa

Amendment to Approved Application
Amendment Reference Number: 19/20-281
Original application Reference Number: 18/19-259
Application Title: Understanding the psycho-emotional experiences of secondary school students with dyslexia from student and teacher perspectives.

I am pleased to inform you that the Education Research Ethics Sub-committee has granted approval to you for your amendment to the application approved on 19 July 2019.

Please note that this approval is for three years, after which you will be required to seek extension of existing approval. Please note that should any MAJOR changes to your research design occur which effect the ethics of procedures involved you must inform the Committee. Please contact Claire Butcher on (01752) 585337 or by email claire.butcher@plymouth.ac.uk.

Yours sincerely



Professor Jocey Quinn
Chair, Education Research Ethics Sub-committee
Plymouth Institute of Education
Faculty of Arts and Humanities

Appendix K: Data management plan

Topic: Understanding the psycho-emotional experiences of mainstream secondary school students with dyslexia from student and teacher perspectives.

Lead Organisation: University of Plymouth

Funder: Commonwealth Secretariat Commission

Researcher: Ms. Kerissa Nelson (PhD candidate, Plymouth Institute of Education)

Research Duration: October 1, 2018–January 31, 2023.

Director of Study: Dr. Janet Georgeson

Second Supervisor: Dr. Elizabeth Done

Section 1: Summary abstract

The goal of this research is to create knowledge and promote understanding of the psycho-emotional experiences of students with dyslexia in mainstream classrooms and to offer teachers the opportunity to consider students with dyslexia perspectives in informing their teaching practices. The researcher has chosen this topic because as an educator, mentor, and international student from Jamaica, the researcher wants to enhance the psycho-emotional experiences of students with dyslexia by expanding the knowledge of educators, including strategies available to them for use in a dyslexia-friendly classroom. Fostering dyslexia-friendly classrooms means increasing access, inclusion, and opportunity in schools for students with dyslexia, which is aligned with the United Nations Sustainable Development Goal 4 of providing quality education for all. To achieve the aims, the researcher will address three questions: What do students with dyslexia say about their psycho-emotional experiences in mainstream classrooms in South West England? What do students with dyslexia who are now attending university in South West England say about their past psycho-emotional experiences in mainstream classrooms? The researcher's role in this research is to understand the psycho-emotional experiences of mainstream secondary school students with dyslexia from student and teacher perspectives and how their knowledge of dyslexia is socially constructed from an interpretivist and social

constructivist perspective. This research draws on multiple perspectives as a multi-temporal case study. Participants will be selected using purposeful sampling, then data analysed using thematic data analysis. The boundaries of this case study are formed around three main cases, comprising three groups of individual cases. This research will generate several potential classroom strategies to improve the psycho-emotional experience and academic attainment of future students with dyslexia, which could be trialled in post-doctoral research and influence policy relating to mainstream classrooms and enhance the psycho-emotional experiences of secondary school students with dyslexia by expanding the knowledge of educators, including strategies available to them.

Section 2: Data collection

What data will you collect or create?

This research will generate data designed to study the psycho-emotional experiences of secondary school students with dyslexia in mainstream classrooms and will explore the perspectives of such student and their teachers. The research methods planned include semi-structured interviews, interactive diaries, and focus groups to collect primary, content-rich, in-depth case study material and will be guided by the University of Plymouth Research Data Policy (2018). Semi-structured interview is a familiar data collection technique (Kallio *et al.*, 2016) and the most frequently used interview style in qualitative investigations (Taylor, 2005). The semi-structured interview is the preferred choice for this research, as it is flexible, allowing me to build rapport with participants, engage in conversation and respond rather than digging for information (Dasgupta, 2015). All participants will receive an informed consent form and information letter. In addition to these documents, the focus group

participants will receive focus group guides, and the secondary school students will receive a copy of the interview questions ahead of data collection.

Focus groups will also be used to explore teachers' beliefs, perceptions, and attitudes (Young, 2019) related to the research topic and learn how they can develop their practice in inclusive classrooms. There will be two focus groups with teachers, with no more than seven teachers in each session. The first will be a preliminary focus group, then another follow up focus group will be conducted once data from the research have been analysed. The second focus group was abandoned due to the COVID-19 pandemic. In addition, there will be two focus groups with no more than five university students in each group respectively, who will share their experiences of being dyslexic while in secondary school. Focus group sessions will be conducted via a licensed paid updated encrypted version of Zoom and only participants provided with access codes to the sessions will be given entry. The researcher can view all participants in the waiting room before the meeting starts and disable the 'join before host' feature. Once the meeting begins, the researcher will record both audio and video in MP4 format, which will then be stored on my personal computer and One Drive. The researcher will also disable screen sharing for participants and allow only myself to present. The data will then be transcribed using Happy Scribe, a secure online general data protection regulated transcription service. The audio version will only be uploaded to Happy Scribe for no more than 12 hours for the transcription to occur. Once the transcription is complete, the researcher will permanently delete it from the online platform. The fully transcribed anonymised data in plain text (.txt) format is chosen because it is an acceptable standard suitable for researchers. The researcher will then store, organise, process, and analyse this data in both NVIVO9 and Microsoft Excel and Word 365 to be hand coded using thematic analyses. Then,

the researcher will save it on One Drive and a Plymouth University provided laptop that is password protected with a security system, power surge protection and virus/malicious intruder protection. Themes and findings were continuously reviewed and revised throughout the research. Data sharing is limited to the research supervisors in Zoom encrypted supervision meetings, anonymity of participants will be maintained. This data will be shared only for the purpose of data analysis guidance and as part of the examination process.

Interactive diaries using video, audio and written word are another method to collect data. This technique will give seven students with dyslexia the opportunity to talk about their own experiences (Buchwald, Schantz-Laursen & Delmar, 2009) in secondary school and will be framed around two questions: How did you feel being in school today and doing your homework? What would you have wanted to be done differently? Personal self-disclosures unrelated to the topic recorded in the interactive diaries will not be included in the data analysis. Data from the interactive diaries would have been collected, organised, and temporarily stored in Google Classroom and Google Drive, then transcribed using Happy Scribe in plain text (.txt), then processed and analysed using NVIVO9 and saved in One Drive, but was abandoned due to the COVID-19 pandemic. Data sharing is limited to the research supervisors in Zoom encrypted supervision meetings, anonymity of participants will be maintained, and this data is shared only for the purpose of data analysis guidance.

Secondary students can also participate in a semi-structured interview to share their experiences related to the topic via Zoom, like the focus group participants. However, the main difference is that this data collection will be done one-on-one, as opposed to a group in the focus group discussion. The data will also be transcribed, organised, and processed in the same way as the focus group discussion data. This

study has received ethical approval from the Plymouth Institute of Education Ethics Committee, which is guided by the Plymouth University Research Ethics Policy (2018) and the University of Plymouth Code of Good Research Practice (2019). This research also ascribes to the guidelines outlined by the Data Protection Act (1998), the General Data Protection Regulation (GDPR, 2018) and the Freedom of Information Act (2000).

How will the data be collected or created?

Participants will be chosen using purposeful sampling, by selecting participants based on the needs of the research to compile ‘information-rich cases’ (Palinkas *et al.*, 2015). The boundaries of this case study are formed around three main cases (C1, C2, C3), which are three groups of individual cases. C1 includes the current experience of being a dyslexic student in a secondary school. Seven secondary school students with dyslexia from South West England were to be invited to engage in a video diary over a week to gain their viewpoint on the topic as current students in a mainstream classroom. However, the use of video diaries was abandoned due to the COVID-19 pandemic, when only semi-structured interviews were conducted. These students were recruited through local secondary schools’ SENCOs in Plymouth and consent given by the students to participate. C2 will include reflections on formerly being a dyslexic student in a secondary school. Seven university students from South West England will be invited to share their past experiences in mainstream secondary classrooms through a semi-structured interview conducted via a video conferencing tool. These participants will be recruited through a research poster advertisement on various social media platforms. C3 includes reflections on teaching secondary school dyslexic students. This focus group will consist of seven teachers from secondary mainstream schools in South West England and will be conducted via a video

conferencing tool. These participants will be recruited through gatekeepers, e.g., head teachers and SENCOs. The viewpoints of these teachers on the topic will be explored and compared with those of dyslexic participants.

Recruitment is an important part of the research process (Newington & Metcalfe, 2014). It includes communicating with participants prior to conducting the research and securing their consent to participate (Patel, Doku & Tennakoon, 2003; Given, 2008). The researcher recognises that challenges may arise in recruiting and motivating participants to be interviewed (Kristensen & Ravn, 2015) and in retaining focus groups for the follow up session (Patel, Doku, Tennakoon, 2003). Despite the difficulties of recruitment and some participants being from a vulnerable population, all ethical considerations will be followed, and participants will be reassured of this. Furthermore, the researcher will start recruitment early and develop a contingency plan if such challenges arise.

The researcher will structure and name my folders and files using accurate, usable, clearly ordered, concise, non-spaced, subject descriptions with valid characters, along with the date the file or folders were created. In addition, the researcher will use the available software provided by the University of Plymouth only.

As it relates to quality assurance, all ethical requirements for this research will be maintained throughout the study. Weekly/monthly supervision team meetings will be held with all members of the supervisory team to discuss and review the data plan to ensure it meets General Data Protection Regulation and the University of Plymouth's quality standards.

What documentation and metadata will accompany the data?

Descriptive metadata will be used to describe the data for the purpose of finding and identification. The following will be used in this research methodology: descriptions, codebook providing variable and value definitions, interview questions, focus guides, information sheets and analysis procedures.

Section 3: Ethics and legal compliance

How will you manage ethical issues?

Informed consent: All participants will review the informed consent and information sheet to ensure they understand the purpose of the research and their role in it, before signing the informed consent form without coercion. Participants will receive information on why it is necessary for them to participate, what will be expected of them, what will happen to any provided data, how it will be used, and with whom it will be shared (BERA, 2018). Participants will be made aware of how the research data will be used in the thesis, shared, and potentially used in other ways (BERA, 2018). Secondary school students will receive a copy of the semi-structured interview and interactive diary reflection questions ahead of time for review and can contact me for clarification or further explanation of these questions prior to engaging in the video diaries and semi-structured interview. They will be advised that if they disclose any personal information that suggests activity that is harmful or life threatening to them or someone else, the researcher will need to report this information to the relevant authorities, or if they need additional emotional support, the researcher will advise them about these sources. University students will also be given a copy of the focus group questions ahead of time and advised about self-disclosures and additional resources. Additionally, teachers will receive the focus group questions in a similar period with university students. Both groups will also seek clarification if needed prior to their meetings with me.

Right to withdraw: Participants will be informed verbally and in writing that they have the right to leave the study at any time and for any reason whatsoever, and that they will not be required to explain such a decision. They will also be informed that they have the right to not answer specific questions or ask for audio and video recording to stop. In addition, if they decide they do not want their data to be part of the study, they can request the withdrawal of that data before it has been analysed. The researchers contact details will be provided on the information sheet.

Openness and honesty: The researcher will be honest in the actions carried out in my research. The researcher will ensure that she obtains a signed copy of participants' voluntary informed consent prior to any collection of data. The current study will not use any form of deception, as my research does not require such as part of its design.

Protection from harm: The researcher will try to protect all participants from psychological harm during the research. Participants will be asked to choose a safe, comfortable space during semi-structured interviews, focus group sessions and video diaries, as all interactions will be conducted online, and information stored digitally in a safe space following technical support. The researcher will respect participants by actively listening to their concerns and adjusting where necessary, especially since the research topic is sensitive. Questions will be asked in a friendly and informal manner. Participants can ask for questions to be repeated, clarified, or paraphrased. University students and teachers can choose not to answer questions they are not comfortable with and take a break or leave the focus group if they wish, without explanation or judgement. All participants, including secondary school students, will receive an information sheet giving the researcher's contact details and be asked to sign an informed consent form giving their agreement to participate in the study, in

accordance with guidelines set out by the British Education Research Association (BERA, 2018). Secondary school students will be continuously monitored throughout the week of participating in the video diary for any sign of distress, and actions will be taken to minimize such stress. Confidentiality cannot be guaranteed within the focus group, as all participants will hear the discussions. However, the researcher will encourage participants not to share any information discussed beyond the group. Participants will also be advised that questions and discussion in the focus group may deviate slightly from the topic guide due to the dynamics of the research. Participants will be notified in advance of any changes and have the option to withdraw if they are not comfortable with the revised questions. If any participant becomes distressed when being interviewed, the researcher immediately interrupts the interview session. If, for example, the participant shares a personal psycho-emotional experience about teaching in the classroom that causes visible emotional distress expressed with tears or anger, the researcher would ensure that the participant is supported by recommending a counsellor or other professional service if they want that level of support or are given some time to use their own self-care strategy.

Confidentiality: Participants will be asked to complete the consent form, making clear any parts of the research they would prefer not to participate in. Responses to the questions asked in this research will remain anonymous. Names will not be attached to participants' answers or video diary, as the data provided is considered overly sensitive. Although confidentiality and anonymity may be difficult to maintain in focus groups, participants will be encouraged to keep information shared in the sessions private. Participants can ask for feedback about findings if they wish. Only the uses listed on the information sheet will be implemented with the data. The data will only be accessible by the researcher, ensuring that the University of

Plymouth's research ethics guideline is upheld. Additionally, data will be securely held for a minimum of ten years. Following GDPR, data will be stored on password protected computers or laptops and encrypted.

How will you manage copyright and Intellectual Property Rights (IPR) issues?

As the principal investigator and researcher on the study, the researcher will hold the intellectual property rights for the research data generated, which is guided by intellectual property rights legislation (University of Plymouth, 2017).

Section 4: Storage and backup.

How will the data be stored and backed up during the research?

The use of the data during the research stage is managed in accordance with the University of Plymouth Information Security Classification Policy (2016) to ensure the security and credibility of the data. In addition, there is a systematic backup schedule that meets the requirements set out by this policy. Moreover, the researcher has enough storage on Google Drive and Microsoft One Drive accounts provided by the University of Plymouth to store data related to this research. Only the researcher will be able to access these password-protected storage spaces. If the unforeseen event occurs where data is lost from my computer, the researcher could access the backed-up data on my personalised drives. The data from my computer will be backed up by me to my drives at least twice a day. The University of Plymouth also provides IT services if the researcher needs their help or advice.

How will you manage access and security?

The researcher will have full control over data files from this study and will only open my data over secured WIFIs. The researcher's personal computer on which the data has been stored will undergo a full systems security check at least three times per week, with passwords changed every 30 days. The security system is in place on

my computer and is updated, as necessary. Once the computer is inactive for more than 15 minutes, it will lock automatically. In addition, my computer has power surge protection, and all my digital files are password protected. All data collected will be subject to GDPR security and University of Plymouth protection regulations.

Section 5: Selection and preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

All written records of the research and its findings will be held by Plymouth University for ten years (in which all participants will be anonymous, unidentifiable, and unnamed) in the PEARL repository, but the raw data will not be shared. The researcher will also ensure that all information collected is kept secure, considering obsolescence factors. In addition, publications or content sharing events will not unintentionally cause a breakdown of established privacy and anonymity due to strategies put in place to minimise these risks. Finally, descriptive metadata, methodology reports, instruments such as codebooks, interview schedules and focus group guides alongside the data ensure that the information will be useful in the future.

Authenticity and Integrity

The researcher will keep and have responsibility over a master file of the data and maintain old master files if subsequent versions contain errors, archive copies of master files regularly, and develop a formal procedure for the destruction of master files once no longer needed (UK Data Archive, 2002–2015). Moreover, with formal procedures in place, such as write access controls and careful documentation and the role as the principal investigator and researcher clear, the researcher can produce an authentic final copy of the raw data, which will be stored on an encrypted hard drive. To ensure the integrity of my data, the researcher will back up critical or frequently

used files using an automated backup process, store master files in open-source formats, verify backup copies of files against original files by comparing dates, store copies of files on two storage media and copy or migrate files to new storage media every two to five years.

Section 6: Data sharing

Are any restrictions on data sharing required?

The research data will not be available for open access, because of the confidentiality and sensitivity of information provided, as well as privacy requirements by participants in the study. The full thesis will however be available in the PEARL repository, and relevant sections will be disseminated via presentations to teachers at their staff meeting, publications in academic journals, presentations at the university's annual Vice Chancellor teachers and learning conference, presentations at Plymouth Institute of Education children and family and inclusion node meetings. Research sharing will be guided by the University of Plymouth Research Publications and Open Access Policy, (2015).

Section 7: Responsibilities and resources

Who will be responsible for data management?

All research data collected as part of this study is held accountable by the University of Plymouth Deputy Vice Chancellor for Research and monitored by the University Research Ethics & Integrity Committee (UREIC) and the Faculty Research Ethics & Integrity Committee (FREIC). As the principal investigator and researcher for this project, the researcher will take responsibility for the collection, management, and sharing of the research data. However, the researcher can access technical support if needed through the university's library and digital support team, as well as the technology and information services team.

What resources will you need to deliver your plan?

The researcher has all the hardware and software provided by the University of Plymouth to carry out my data plan and the necessary funding through miscellaneous fees if needed to purchase supplementary resources.

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Appendix L: Three cases of dyslexia friendly schools

Key agencies, among others, are now steadily moving towards better support for students with dyslexia, while utilising cost saving methods (Nicolson, 2002). A UK based dyslexia organisation defines a dyslexia-friendly school as:

Able to identify and respond to the “unexpected difficulties” that a dyslexic learner may encounter [...]. A particular feature of such schools is the awareness among all teachers of what each pupil should be able to achieve, together with a range of response strategies when targets are not met [...]. Dyslexia friendly schools are proactive schools because they believe in the importance of “rigorous scrutiny followed by immediate intervention [...]. Dyslexia friendly schools are empowering schools because they recognise the importance of emotional intelligence [...]. Dyslexia friendly schools are inclusive schools [...]. Dyslexia friendly schools are improving, “value added” schools. (British Dyslexia Association, 2008, pp. 1–5).

Similarly, Mackay (2008) suggests dyslexia-and learner-friendly environments are effective, proactive, empowering, inclusive and add worth to schools, but if institutions want to create this environment, the entire school’s policy requires revision, and the accreditation process needs to be valued as important. Peer and Reid (2001) however, argue that it is the responsibility of headteachers to ensure that the strategic vision for their schools is dyslexia- and learner-friendly. The three cases of dyslexia-friendly schools presented in this thesis demonstrate the usefulness of inclusive environments in education, which may have an impact on students with dyslexia psycho-emotional experiences.

Rushcliffe Family of Schools Dyslexia Friendly Schools Policy

The Rushcliffe Family of Schools Dyslexia Friendly Schools Policy has its foundation in the DfE SEN toolkit, Nottinghamshire County Council’s Guidance to Dyslexia Friendly Schools and the Dyslexia-friendly School pack – British Dyslexia Association. This family of schools places a high importance on identifying, assessing, and providing suitable interventions to help students with dyslexia

(Rushcliffe Family of Schools, 2017). The identification of dyslexia includes early diagnosis and individual referrals. Assessment of dyslexia includes a wide range of assessment, follow up and transition tools. Intervention for dyslexia entails recommendations of suitable dyslexia- and learner-friendly inclusive education strategies, including appropriate examination accommodations. It also includes awareness of the home, school, and student relationship in relation to their learning. Additionally, this policy recognises the importance of teacher training to ensure competence in teaching students with dyslexia. It suggests that the entire school staff is kept abreast of relevant dyslexia training and news (Rushcliffe Family of Schools, 2017). On the school's website, there is user friendly, easily accessible information about available customised program plans and individual support, as well as support staff who cater to student's well-being. The Rushcliffe policy is an example of inclusive education in practice that utilises a whole school's approach to assist students with dyslexia, which is likely to help increase the positive psycho-emotional experiences among students with dyslexia, but there is room for improvement to better support the wholistic needs of students with dyslexia.

South Ayrshire Council Dyslexia Friendly Schools Project

Like the Rushcliffe policy, the South Ayrshire Council Dyslexia Friendly Schools project is based on scholarly research. This project has its roots in Mackay's Dyslexia Friendly Model and provides nine rationales for implementation. Two of these rationales address "negative socio-emotional and attitudinal aspects of dyslexia" as an "antidote to 'one size fits all' approach to dyslexia intervention" (South Ayrshire Council, 2014, p. 60). The project also has two aims critical in providing positive psycho-emotional experiences for their students with dyslexia. They are "to clarify expectations and responsibilities for teachers, pupils, and parents [...], to

facilitate pupils' resilience, empowerment and informed choice" (South Ayrshire Council, 2014, p. 60). When expectations and responsibilities are clear, there is less confusion and challenges related to tasks in the classroom and students with dyslexia can be more confident and feel empowered, which can help improve their self-esteem and psycho-emotional experiences. The Council has also been recognised nationwide for its achievements in helping students with dyslexia and for improvements to learners' experiences and school ethos (South Ayrshire Council, 2016). In addition to awards, this project/model stands out from other schools mentioned in this section, as South Ayrshire recognises dyslexia awareness week, where students and staff participate in activities which they maintain contribute to the positive psycho-emotional experiences of students with dyslexia.

Trafford Dyslexia-Friendly Quality Mark

All the models/projects mentioned so far have a similar definition of what they consider a dyslexia-and learner-friendly classroom. The Trafford Council's response to create a dyslexia-and learner-friendly classrooms stands out, as it is based on their view of disability as part of an accessibility strategy:

Trafford fully endorses the 'social model' of disability, which proposes that it is society which dictates who is excluded not the nature of the disability itself. The model recognises that barriers to access can be organisational and attitudinal so removing them is as much about encouraging positive attitudes as it is about removing physical barriers. (Trafford Council, 2015, p. 2)

Wellacre Academy, a mainstream high school in Trafford Borough, achieved the Trafford Dyslexia-Friendly Quality Mark in September 2017 (Griffiths & Kelly, 2018). The BDA Dyslexia-Friendly Quality Mark "is only issued to schools or organisations that can demonstrate that they provide high quality education and/or practice for dyslexic individuals" (British Dyslexia Association, 2020, p. 1). The first step Wellacre Academy carried out was the establishment of a central team and a

review of current practices. Next was an audit of their 2013–14 action plans and finally, they initiated the dyslexia project throughout the school. In creating a dyslexia-friendly environment, the school focused on staff preparation, as well as making changes to the physical classroom environment, intervention strategies, learning techniques and resource material (Griffiths & Kelly, 2018).

Students' feedback on the implementation of the dyslexia-friendly approach was positive. Some students reported feeling happier, while others reported an increase in their confidence and self-esteem. The school also saw improvements in GCSE results for students with dyslexia and other SEND students (Griffiths & Kelly, 2018). Wellarce Academy mentions on their website that students actively participate in student learning committees, which is key in creating positive experiences for their students. The academy website, like Rushcliffe, provides user friendly, easily accessible information about the social and emotional support available to all students, not just those with dyslexia, along with useful information about the SEND and Disability Information Report and the Special Education Needs Policy.

Appendix M: Figure 1. Dyslexia-and learner-friendly classroom as an Activity System

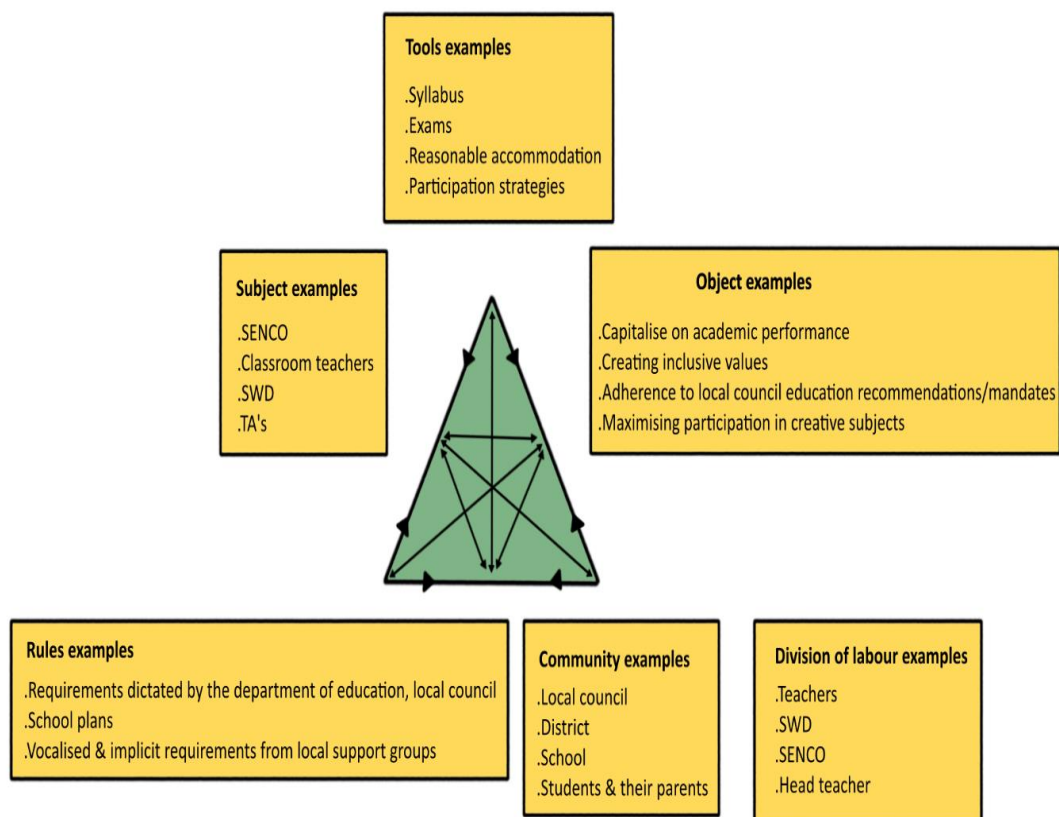


Figure 2. Dyslexia-and learner-friendly classroom as an Activity System.

Appendix N: Figure 2. Five subthemes in the overarching theme structures



Figure 4 – Five Subthemes in the overarching theme structures.

Appendix O: Table 1. Comparison showing the Braun et al. stages of Thematic Data Analysis versus the current study revised stages of Thematic Data Analysis

Braun <i>et al.</i> stages of Thematic Data Analysis	Current study revised stages of Thematic Data Analysis
Familiarisation	Initial coding
Coding	Expanded coding strategy
Producing themes	Producing and revising themes
Revising themes	Identification and refinement of key themes
Describing and identifying themes	Consolidation of the overarching narrative and write up
Writing up	

Appendix P: Blog

Tools To Support Your Mental Health

May 21, 2020

Kerissa Nelson is a certified Mental Health Counsellor with the National Board of Mental Health Counsellors in the USA, Online Educator in Jamaica and a PhD candidate in the UK exploring the research topic: UNDERSTANDING THE PSYCHO-EMOTIONAL EXPERIENCES OF SECONDARY SCHOOL STUDENTS WITH DYSLEXIA FROM STUDENT AND TEACHER PERSPECTIVES.

Below are some general tips you can include when necessary to support your mental health.

For University students:

Student well-being services.

Fika (Mental Fitness)- To improve core skills, reduce the risk of mental health problems. Weblink: <https://www.fika.community/>

Big White Wall- they provide online service to help students with mental issues such as anxiety, depression, and other common mental health issues. Weblink: <https://www.bigwhitewall.com>

Secondary school students:

Supportive Teacher

School Counsellor

Special Educational Needs Coordinator (SENCO)

Everyone:

NHS - Mental health services are free to persons on NHS. NHS Every Mind Matters webpage- you can get access to a wealth of resources including a quiz to help deal with common mental health issues. Call: NHS 111. Weblink: <https://www.nhs.uk/oneyou/every-mind-matters/>

Shout text service - You can text Shout to 85258 to talk to a trained support staff. Weblink: <https://www.giveusashout.org>

Frazzle Café - online website community to engage with other people who may be experiencing challenges like you, its ok not to be ok. Weblink: <https://www.frazzledcafe.org/>

Mind – Their service provides advice and support to empower anyone experiencing a mental health problem. They campaign to improve services, raise awareness, and promote understanding. Call: 0300 123 3393. Weblink: <https://www.mind.org.uk/>

Headspace - An app to help you learn to meditate and practice mindfulness.

Happify – An app that provides activities and games to help reduce stress and improve your mental health.

SAM - An app to help manage and understand your anxiety.

Samaritans - Gives support to persons who need someone to talk to anytime 24 hours a Mental Well-Being Resources. Confidential and free. Call: 116 123. Weblink: <https://www.samaritans.org/>

Rethink Mental Illness Advice Service - Offers practical advice about mental health issues. Weblink: <https://www.rethink.org/> SANEline - Provides out of hours free service support line, giving advice and guidance to anyone affected by mental illness. Call: 0300 304 7000. Weblink: <http://www.sane.org.uk/>

Papyrus UK - provides support services for people 35 and younger with mental health challenges. Call: 0800 068 41 41. Weblink: www.papyrus-uk.org

Hope you found these resources useful. If you're from the Southwest area and a student with dyslexia 16 years and above or teach secondary school students with dyslexia let your voice, be heard, and contribute to my research, you can contact me by email @ kerissa.nelson@plymouth.ac.uk.

Appendix Q: Sample Gatekeeper letter

Date:

Address of school

Dear (Name of Gatekeeper),

I am a Ph.D. student in Plymouth University's Institute of Education presently in the data collection phase of my research. I am requesting your participation in helping to locate student participants for this research. My study looks at the psycho-emotional experiences of secondary school students with dyslexia in mainstream classrooms and will explore the perspectives of such students and their teachers.

I will need your help to find students aged 16 years and above who show signs of dyslexia that attend your school. I will also ask students to participate in a semi-structured interview for no more than 30 minutes via Zoom.

I will make recordings of the interviews; anonymity and confidentiality will be fully maintained throughout additionally: -

- no student or teacher will be named in any report
- no-one other than the researcher will hear the recordings
- students' academic achievements or reports will not be requested at any time

The focus of the research is to generate several potential classroom strategies to improve the psycho-emotional experience and academic attainment of future students with dyslexia. Once you agree to participate, I will forward information sheets and consent forms and the schedule for student interviews.

Thank you for you again for your assistance, my contact details are below.

Yours sincerely,
Kerissa Nelson

PhD. candidate, kerissa.nelson@plymouth.ac.uk
07960375974

Please Note:

The university's research ethics policy states that data should be securely held for a minimum of ten years after the completion of the research project. Electronic data will be stored on password protected computers or laptops and individual files and/or discs must be encrypted. Hard copies of data must be stored in locked filing cabinets and disposed of securely when no longer required.

