

UNIVERSITY OF DERBY

CAN'T SPELL, CAN'T TEACH?

AN EXPLORATION OF STAKEHOLDER ATTITUDES TOWARDS STUDENTS,
WITH DYSLEXIA, TRAINING TO BE PRIMARY CLASSROOM TEACHERS.

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List and glossary of abbreviations used in the study

BEd Bachelor of Education: an undergraduate degree leading to Qualified Teacher Status.

BERA British Ethical Research Association: a member-led charity to encourage educational research to improve practice.

DDA Disability Discrimination Act: introduced in 1995 to protect the civil rights of individuals with disabilities.

DRC Disability Rights Commission: an independent body set up by the government to protect the civil rights of disabled individuals.

DfE Department for Education: the government body responsible for schools in England (2010 - present).

DfES Department for Education and Skills: the government body responsible for schools in England (2001-2007).

ERSC Economic and Social Research Council: the UK's leading research and training agency addressing economic and social concerns.

FE Further Education: education which is beyond post-16 compulsory education. Further education can be at any level above compulsory secondary education, from basic skills training to higher vocational qualifications but which is different to that offered at higher education institutions.

GT Grounded Theory: a methodology, a way of thinking and conceptualising data without preconceived ideas. Allowing theory to be generated from the data.

HE Higher Education: post-18 learning that takes place at universities, as well as other colleges and institutions that award academic degrees, professional qualifications and Continuing Professional Development (CPD) modules.

HEI Higher Education Institute: Universities and colleges offering higher education courses.

HESA Higher Education Statistics Agency: the central agency which gathers data about publically funded higher education in the UK.

IQ Intelligence quotient: a score derived from standardised tests to measure human intelligence.

ITE Initial Teacher Education: pre-service education to train as teachers with an emphasis on theory underpinning practice.

ITT Initial Teacher Training: pre-service training to qualify as a teacher.

OFSTED Office for Standards in Education: Governmental body carrying out inspections.

PGCE Post Graduate Certificate in Education: one year, university-led postgraduate qualification leading to Qualified Teacher Status.

PSED Public Sector Equality Duty: introduced in 2011 to replace the 'Disability Equality Duty' for public bodies to eliminate unlawful discrimination and to advance equal opportunities

QTS Qualified Teacher Status: required in English and Welsh schools to teach as qualified teachers in schools under state authority.

SENDA Special Education Needs and Disability Act: introduced in 2001 for the right for disabled students not to be discriminated against in education, training and any services provided wholly or mainly for students.

SpLD Specific Learning Disability: an umbrella term for a number of disabilities usually including Dyscalculia, Dysgraphia, Dyspraxia, Attention deficit disorder or attention deficit hyperactivity disorder (ADD or ADHD) and Asperger Syndrome.

TDA Training and Development Agency: Government body responsible for the training and development of teachers in England (2005-2012).

UCAS Universities and Colleges Admissions Service: central service through which students apply for higher education courses in the UK.

WBP Work Based Project: a project undertaken which links to a person's daily working practice/environment

Abstract

The aim of this research was to investigate stakeholder attitudes towards people, with dyslexia, training to be primary classroom practitioners. The study examined stakeholder awareness and understanding of the term dyslexia; their perceived strengths and challenges, of those training to be teachers, with dyslexia. The study explored the impact of attitudes on disclosure of dyslexia and the potential of their employability as primary teachers in light of inclusive legislation and whether attitudes, held by a range of stakeholders, were on a neutral to positive or neutral to negative spectrum.

The research entailed the implementation of an online questionnaire completed by 214 current stakeholders (including Initial teacher Education lecturers, school staff, Initial Teacher Education students and parents) and 11 semi-structured interviews.

Findings suggest that there is uncertainty and confusion about the term dyslexia, its associated characteristics and its causes. Many stakeholders perceive dyslexia negatively with key characteristics being linked, predominantly, to deficits in reading, writing and spelling.

This research has found that stakeholders identify a number of strengths that those with dyslexia bring to the teaching profession. These key strengths include empathy, inclusive practice and ease of identification of children with dyslexia. The main challenges/concerns identified by stakeholders, of those entering the profession, with dyslexia, were - the demands of the profession; the inability to teach particular age groups/subjects and the level of support needed to ensure success and retention following qualification. This latter concern constitutes a key finding of this research, as the level of support afforded by universities is perceived as being unrealistic in the workplace. The ethical responsibility that universities have, in preparing students for the demands and reality of the workplace, has emerged.

The notion of what constitutes 'reasonable adjustments' is questioned by many stakeholders. This research concludes that a number of 'reasonable adjustments' are perceived as being unreasonable within the teaching profession due to the professional roles, responsibilities and requirements of being a teaching professional. Furthermore, uncertainty about legislation exists with regard to reasonable adjustments, whose responsibility it is to enforce reasonable adjustments and how schools can actually support those with dyslexia, in light of professional standards.

Overall, this research has found that 16.1% more stakeholders display attitudes on the neutral to positive spectrum than neutral to negative with regard to those with dyslexia training to be primary classroom teachers. However, this masks major differences between stakeholders and between responses to particular statements/questions.

A significant majority of stakeholders demonstrated a negative attitude towards the notion of people with dyslexia entering the teaching profession, believing that parents should be concerned if their child is being taught by someone with dyslexia. Both of these findings could have serious implications on the future disclosure of those with dyslexia.

This research has found that a fear of stigmatisation and potential discrimination, which deter those with dyslexia from disclosing on course and job applications are justified and real. This research concludes that employability chances are lessened upon disclosure of dyslexia.

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Chapter 1 – Introduction

1.1 Rationale and context for the study

The rationale for this study is three-fold: my own personal experiences as an Initial Teacher Education (ITE) lecturer directly involved in working with Bachelor of Education (BEd) and Post-Graduate Certificate of Education (PGCE) students with dyslexia; an awareness of the introduction of inclusive policies/legislation which serve to promote equality and access to education/employability for those with disabilities leading to widening participation; and findings from previous research.

From personal experience, in recent years, an increasing number of stakeholders, involved in ITE, have questioned how individuals, who have disclosed dyslexia, have been accepted onto the ITE courses on which I teach. This questioning of someone's suitability and fitness to teach, owing to their known dyslexia, raises a number of moral and ethical issues. This led to an interest in researching the prevalence of these concerns/views amongst stakeholders involved in ITE alongside a desire to establish potential factors which may have contributed to such attitudes. For the purpose of this research, these stakeholders have been identified as those directly involved with students training to be teachers and include ITE lecturers, school staff (including Headteachers, middle leaders and mentors), parents whose children attend classes with trainee teachers in situ, on assessed placements, and students on ITE programmes.

From a policy perspective, in recent years there has been a plethora of inclusive legislation for those with disabilities – the Disability Discrimination Education Act (DDA, 1995), the Special Education Needs and Disability Act (SENDA, 2001), the Equality Act (2010) and the Public Sector Equality Duty (PSED, 2011). Higher Education Institutions (HEIs) now have a legal responsibility to ensure that the Equality Act (2010) is enforced with staff required to put in place reasonable adjustments to support success. Dyslexia is now the most common disability diagnosed and disclosed within the Higher Education (HE) student population - equating to 70% of all disabilities (Dyslexia Research Trust, 2014). Within the last

decade there has been a 5 fold increase in the number of students, with dyslexia, enrolling onto programmes on which I teach (BEd and PGCE programmes) - from 2% in 2005 to 9.8% in 2015. Although the number of enrolments of those with disabilities, particularly dyslexia, has increased, so too has the number of students with dyslexia finding professional placements challenging, and at worse, failing their placement, potentially supporting concerns regarding their suitability to teach.

Nationally, teacher attrition is also at its highest. A recent report suggests that four out of ten teachers are now reported to leave the profession within a year of qualifying whilst 53% of teachers state they are considering leaving the profession in the next two years due to the demands of the profession (National Union of Teachers, 2015). No statistics exist to ascertain the number of teachers, with disabilities, such as dyslexia, leaving the profession. Poor retention has led to a crisis in teacher supply with many schools failing to recruit to posts advertised (National Union of Teachers, 2015). With this in mind, it appears that whilst Headteachers are struggling to recruit and fill vacancies, some are critical of the type of student wishing to enter the teaching profession and will not employ someone they believe do not have the necessary skills. This again raises questions with regard to suitability to teach and highlights tensions between inclusive legislation and the need to meet professional standards.

Working within an ITE setting and my developing familiarity with literature relating to dyslexia, and students training on professional courses, highlighted that there is a paucity of research relating to attitudes towards students with dyslexia training to be primary teachers (Griffiths, 2011; Cameron and Nunkoosing, 2012). Research by Mortimore and Crozier (2006) explored differences in the difficulties faced by students studying in HE, with and without dyslexia, whilst Riddell and Weedon (2006) investigated HE lecturer attitudes to students with dyslexia, in general, rather than towards those on ITE programmes specifically. Morgan and Rooney's (1997) research entitled 'Can dyslexic students be trained as teachers?' sought only to identify the nature of support afforded to student teachers with dyslexia rather than asking 'Should people with dyslexia be trained as teachers?'

With recent policy changes and the introduction of inclusive legislation, much of this research is now outdated. These factors served to further provide a rationale for this current study.

1. 2 Contribution to knowledge

This research is of importance to the dyslexia community, those working in ITE, employers and policy makers. This research adds to current knowledge first and foremost in that a wider range of stakeholder views has been investigated. Previous research has focused, predominantly, upon general HE lecturer attitudes only or students with dyslexia themselves. In contrast, this research focuses on the attitudes of school staff (such as Headteachers and mentors), peers studying on ITE programmes, parents of children being taught by trainee teachers, on their assessed placements, as well as ITE lecturer attitudes. This research also adds to the current knowledge base by investigating stakeholders' understanding of the term dyslexia alongside potential moral, ethical and legal conflicts which may arise with regard to entry onto to an ITE programme, performance whilst on the programme and, ultimately, employability.

1.3 The research aim

Arising from the absence of research regarding those with dyslexia entering the teaching profession the overarching research aim, to explore stakeholder attitudes towards students with dyslexia, training to be primary classroom teachers, was identified. In order to successfully meet this aim the following research objectives emerged:

- 1. To investigate understanding and awareness of dyslexia displayed by stakeholders involved in ITE.*

Literature highlights that there remains lack of a shared definition of the causes and characteristics of dyslexia which can cause confusion and lead some to question of the very existence of dyslexia as a disability (Elliott, 2008). This research will establish whether current stakeholders have a secure understanding of the term and how this understanding has been formed.

2. To identify strengths and challenges that stakeholder's believe ITE students with dyslexia bring to/face in the teaching profession.

Research by Duquette (2000); Morgan and Rooney (1997); Riddick (2003); Attree, Turner and Cowell (2009); Griffiths (2011) and Burns and Bell (2011) highlights a number of perceived benefits that teachers with dyslexia can bring to the profession- such as creativity. Some challenges, mainly practical issues, such as writing on the board, are identified from the viewpoints of those training to be teachers with dyslexia (Morgan and Rooney, 1997; Griffiths, 2011). Limited research has been undertaken into the strengths and challenges that other stakeholders perceive those with dyslexia, training to be teachers, may experience and how this may impact on their perceived suitability for the profession.

3. To establish whether stakeholders perceive there to be a difference in the employability prospects of an ITE student disclosing dyslexia, as a primary classroom teacher, compared to their non-dyslexic peers.

This current study explicitly investigates attitudes towards the employability of someone, with dyslexia, training to be a primary teacher and the reasons underpinning the responses given. Research by Beverton, Riddick, Dingley, English and Gallannaugh (2008) concluded that when applying for Initial Teacher Training (ITT), ITE courses and teaching positions, many people with dyslexia feared discrimination and were reluctant to disclose. Riddick (2003) and Morris and Turnbull (2006) similarly asserted that those with dyslexia on professional programmes, such as teaching and nursing, believed disclosure would result in ridicule and stigmatisation.

This research seeks to establish whether several years on, and with the introduction of much equality legislation, such as the Equality Act (2010), these fears remain a reality for those with dyslexia.

4. To investigate whether attitudes expressed by stakeholders, towards someone with dyslexia training to be a primary classroom teacher, are influenced by given factors.

Potential factors which may influence attitudes held by stakeholders, towards those with dyslexia training to be primary teachers, are explored in light of participants' overall attitude measurements. Such a consideration is currently missing from the field. However, it is important to note that this research seeks to identify trends rather than to prove scientific correlations.

1.4 Scope, context and structure of the study

This study was set within an interpretivist paradigm, employing a pragmatist approach of mixed methods of data collection. The research entailed the implementation of an online questionnaire completed by 214 current stakeholders, incorporating both closed and open questions. The results, informed by reading from the literature review, were then used to inform a series of semi-structured interviews involving a total of 11 participants derived from each of the stakeholder subgroups.

Owing to the potentially contentious nature of the research, it was imperative to ensure ethical guidelines were adhered to (University of Derby, 2002; BERA, 2011). The permission of the participants was secured in order to obtain access. Likewise, the willing consent of the interviewees was gained. The research project was explained to the participants and they were assured that their names and the names of their schools would not be disclosed. Participants were reassured that no quotations would be attributed to them in order to protect their identity.

The interviews were recorded and the transcripts critically analysed in accordance with the criteria outlined within the research questions, which will be further explored within Chapter 3.

Chapter 2 serves to provide a review of current knowledge and understanding in relation to the key concepts and foci of this present study. Chapter 3 gives consideration to the research design, and includes a consideration of research methodology and data collection methods, as informed by ontological and epistemological considerations. Detailed discussion is provided concerning ethical principles implemented. Chapter 4 outlines the findings of both Phase 1 of the data collection process (the questionnaires) and Phase 2 of the data collection process (the semi-structured interviews) using a range of visual and textual representations. Chapter 5 provides a discussion of the key findings. Conclusions, recommendations for future research and an overview of the dissemination strategy employed follow in Chapter 6.

Chapter 2 – Review of Literature

2.1 Introduction

The aim of this research is to explore stakeholder attitudes towards students with dyslexia who are currently training as primary classroom teachers, on ITE programmes. The review of literature which follows contextualises key concepts related to the research focus. These key concepts include students with disabilities studying within HE, students with disabilities studying professional programmes, dyslexia, disability and attitudes. Research by Barbara Riddick and Shelia Riddell underpin a consideration of students with disabilities, particularly those with dyslexia in HE studying professional programmes. Consideration of policies and legislative documentation such as the Equality Act (2010) was also centripetal in developing an understanding of current inclusive legislation, rights, roles and responsibilities. Leading authors in the field of dyslexia such as Margaret Snowling, Keith Stanovich and the controversial writings of Julian Elliott have been influential in the development of a critique of terminology, models and causes of dyslexia whilst the seminal works of Ajzen and Fishbein and Allport were central to developing an informed understanding of the concept of attitudes and factors influencing their formation.

Criteria used in the selection of literature evolved from a small body of texts to first develop an understanding of the key concepts related to this study, to texts which explored the key concepts in further depth as well as related domains, for example exploring links to other professional programmes such as nursing through the work of Illingworth and McKendree and Snowling. Criteria for selection in the review of literature centred principally upon the notion of quality, with texts predominantly sourced from peer-reviewed journals and reputable publishers. A range of seminal texts, current national and international perspectives, legislation, theoretical models and research findings were used to develop a theoretical framework underpinning the study.

In the first instance, this chapter presents a contextualisation of students, with dyslexia, studying in HE on professional programmes. Consideration is given to potential moral and ethical tensions between social policy, such as widening participation legislation, and the need to meet academic and professional standards. The chapter then explores some of the key issues surrounding the notion of dyslexia to gain an understanding of its complexities. It is arguable that attitudes towards a disability and the perceived suitability for a given profession, may be informed by the way in which a person defines the disability, its characteristics and its causes. The chapter concludes with an exploration of attitudes; factors influencing their formation and the relationship between attitudes and behaviour.

2.2 Contextualisation: Disability and dyslexia in Higher Education

As the focus of this study concerns itself with attitudes of stakeholders towards students with dyslexia on ITE courses, such as BEd and PGCE programmes, it is necessary to first consider the ITE student, with dyslexia, within the wider context of HE. This section addresses the issue of students with dyslexia working at this higher level of academic activity whilst also examining the potential tensions of study for a professional qualification such as Qualified Teacher Status (QTS). A consideration of participation on such programmes, alongside professional standards to be met, whilst on professional placement will also be considered. Links will be made, throughout this chapter to other domains within HE, such as nursing, which also require professional placements and standards to be met, as parallels can be drawn.

Statistics collected by the Higher Education Statistics Agency (HESA, 2009) indicate that there has been a steady rise in the number of students with disabilities entering Higher Education Institutions (HEIs) but that this is still below the proportion of the general population with disabilities. Mortimore (2013) estimates there are 1.3 million people with disabilities in the UK whilst the British Dyslexia Association (2013) estimates that 1 in 10 people, accounting for 6.3 million people, have some form of dyslexia.

With regard to Higher Education, the exact number of students with dyslexia is not known. It is estimated that the number of students with dyslexia, in 2012-13 (104,580) increased by 22 times the amount compared with the number in 1994-5 (4,750) (Grove, 2014). In the national disabled student population, it is estimated that dyslexia constitutes 70% of all disclosed disabilities, with 61% of those with dyslexia claiming Disability Support Allowance (DSA) thus making it the most common of disabilities (Department of Innovation, Universities and Skills (DIUS), 2014).

However, these statistics must be treated with caution for a number of reasons. First, the HESA only collects data concerning first year students. This does not then allow figures to be reconciled after testing has taken place, for example after beginning their undergraduate courses. Indeed, as Riddell, Tinklin, and Wilson (2005) conclude, over half of all people with dyslexia, in HE, are diagnosed during or after their first year of study and so the undergraduate statistics may be unreliable indicators. Secondly, whether or not a disability is recorded depends solely on the disclosure of a disability, by the student themselves, at the point of entry.

There are a number of reasons which may prevent a student from disclosing such information. Some students do not seek testing and a label, due to believing that they have developed sufficiently good strategies on their own (Richardson and Wydell, 2003). For others, it is the fear of stigmatisation (Tinklin, Riddell and Wilson 2004). Olney and Brockelman (2003) suggest that some students decide not to disclose their dyslexia due to their perceptions of negative attitudes from peers and lecturers, fearing stigmatisation and discrimination. The notion of fear of stigmatisation, through labelling, has also been raised by Healey (2003, p.26) who defined disability legislation as a “Trojan horse” that can lead to greater stigmatisation of disabled students through the reinforcement of a sense of failure through the labelling of students as ‘disabled’. These factors are further compounded by the non-compulsory nature of disclosures.

The true extent of the number of students with dyslexia, in HEIs, is further compromised due to changes in the way in which data is collected by the HESA. Changes in the fields used to categorise disabilities, from 2007, resulted in the specific category of 'dyslexia' being replaced with 'Specific Learning Disability' (SpLD). Whilst dyslexia falls into this category so do other types of disability, such as dyspraxia. Consequently, explicit figures for dyslexia alone are now unattainable. These issues are further compounded by inconsistencies in diagnosis with random, imprecise and questionable tests (Elliott, 2014).

We need to be mindful as to whether the number of students who have dyslexia has actually risen or whether more people are disclosing their disability (Vickerman and Blundell, 2010). Singleton, Cottrell, Gilroy, Goodwin, Hetherington, Jameson, Laycock, McLoughlin, Peer, Pumfrey, Reid, Stacey, Waterfield and Zdzienski (1999) would suggest that numbers are indeed increasing and that there are three principal reasons for this: earlier identification of school children; increased support, within HE, and wider access for mature students.

2.2.1 Widening participation - legislative considerations

A number of authors have examined the increase in the number of students with dyslexia, within HE. Pumfrey (1998) suggests that one of the most influential factors has been the rise of equal opportunity and anti-discrimination legislation. Inclusive legislation has, for Gilroy (1990), resulted in an overall improved awareness of dyslexia. This greater awareness and understanding has led to a rise in the number of assessments of individuals identified as having 'dyslexic' characteristics and subsequent training and support put in place. However, Fuller, Georgeson, Healey, Hurst, Riddell, Roberts, and Weedon (2008), question whether inclusive legislation has made any significant difference. Fuller *et al* (2008), suggest that there is still a wealth of evidence which points to discrimination and disadvantaged faced by disabled people in many aspects of their lives. The professional development of staff is perceived, by Fuller *et al* (2008), as an essential requirement to address inclusivity within HEIs. Indeed, Tinklin *et al* (2004) also suggest that there still remain gaps between policy and practice.

The continual rise in the number of students entering HE, with dyslexia, has been attributed, by Jamieson and Morgan (2008), to the legal obligation of universities to support students with disabilities. Additionally, as asserted by Pumfrey (1998), twenty years earlier, support in schools has continued to increase significantly and is evident in recent government investigations such as Singleton's 'No to Failure' (2009).

The Disability Discrimination Act (DDA) (1995), amended by the DDA in 2005 also played a part in reducing discriminatory practices at work and in education. For Reid (2009), increased access to HE has been one of the major advances for those with dyslexia. The 2001 Special Educational Needs and Disability Act (SENDA) was an amendment to the 1995 DDA. From 2002, SENDA made it an offence for any educational institution to discriminate against a disabled person by treating him or her less favourably than others for a reason relating to their disability. This has now been subsumed by the Equality Act (2010) requiring all HEIs to ensure full and equal access to their courses, examinations and professional placements regardless of disability.

As a result of the Public Sector Equality Duty (PSED) (2011), any student required to undertake placements, as part of their programme, and which are undertaken in settings beyond the university, are also entitled to legal protection under the auspices of the PSED (2011). Courses incorporating placements have a duty to ensure that placement providers are aware of their legal responsibilities, prior to the commencement of the placement. The Disability Rights Commission (DRSC) (2007) in their report on maintaining standards and promoting equality in HE also emphasised the need for sufficient information to be shared with placement providers to ensure the needs of disabled students are met, through the use of reasonable adjustments. Schools, providing placements to ITE students, thus need to ensure they can put support in place. However, tensions exist here with the Data Protection Act (1998) which preserves an individual's right to have their health status protected. Without permission, this information cannot be shared with third parties and thus not all placement settings can be informed of the need to put support in place.

Tinklin *et al* (2004) believe that the rise in the proportion of disabled students, especially those disclosing dyslexia, in the student population, is more about the increased incentives for disclosure of impairment that have been advertised. Mortimore and Crozier (2006) highlight a range of support available to those with a diagnosis. This support includes access to personal tutors, laptops, assistive software with text-speech programmes, voice activated technology, provision of lecture notes and extra library support. The availability of such resources raises questions about the 'attractiveness' of particular labels of disability when studying in HE.

The increase in the number of students with dyslexia studying in HE may be attributed to the increase in the number of mature students. Over recent decades, the number of mature students has increased and now account for 40% of student intake. Jamieson and Morgan (2008) suggest that a number of these mature students may have dropped out of earlier education due to issues surrounding poor performance, which at the time, was undiagnosed or missed by educationalists. The rise of 'non-traditional' routes into HE has supported the entry of mature students without necessarily having to demonstrate the traditional 'A' level competencies (Singleton *et al*, 1999; Scottish Wider Access Programme, 2010). This is evidenced in statistics for the programmes on which I teach, with 36.5% entering via non-tradition routes, 17.4% falling within the 25years+ age category on the BEd and 42.7% on the PGCE programme.

Widening participation strategies aim to support students, from a diverse range of backgrounds, reach their full potential and to experience the benefits of HE. All stakeholders should benefit from the expansion of HE. The Government's intention is to make sure that all the students will receive adequate support when they enter HE and that the skills that they will acquire are appropriate to meet the needs of the economy and their future employers. For those students with disabilities on degree programmes, that have both an academic strand and a professional strand, some tensions may arise, which may lead to discriminatory practice.

2.2.2 Discrimination

Negative attitudes are deemed, by SENDA (2001, part IV), to constitute a form of discrimination. As a result, a student with dyslexia experiencing negative attitudes would be within their rights to instigate legal action. Since the introduction of SENDA (2001 part IV), HEIs have a duty to work in partnership with a range of stakeholders and placement providers to offer a student centred, positive learning experience, for all students with dyslexia undertaking a professional placement (Steiner, 2004). It is now a requirement that all HEIs, including those that have placement element to their courses afford appropriate support and reasonable adjustments to students with dyslexia (DfES, 2002). This research investigates whether this legislation has impacted upon the attitudes and practices of those involved in the professional placements and mentoring of ITE students, linking to research objectives 3 and 4 of this thesis.

A consideration of stakeholder attitudes towards students with dyslexia, in HE, is limited in current academic literature (Cameron and Nunkoosing, 2012). A small number of studies have sought to explore attitudes of lecturer attitudes to those with dyslexia, in HE, in general (Mortimore and Crozier, 2006; Riddell and Weedon, 2006) whilst others have explored attitudes through a consideration of previous experience and contact with those with dyslexia (Tinklin and Hall, 1999; Cameron and Nunkoosing, 2012). These latter studies concluded that contact, with someone with dyslexia, served to inform participant knowledge about dyslexia, reducing potential discriminatory attitudes. As a result of direct contact, lecturers were more likely to show understanding towards and increase the level of support they afforded to students disclosing dyslexia.

Unlike ITE, in the sphere of nursing, a plethora of evidence exists to suggest that attitudes held by health professionals towards nurses with dyslexia, may be of a discriminatory nature. Sanderson-Mann and Candless (2005), note that stigmatisation of nurses with dyslexia existed due to perceived issues with the accurate completion/reading of paperwork and the fear of mistakes of incorrect drug dosage. Price and Gail (2004) found that, usually resulting from ignorance by nursing mentors who knew little or nothing about dyslexia, there was some evidence

of apparent disability discrimination for nursing students in HE. Furthermore, Ryan and Struhs (2004) concluded that the full participation of people with disabilities in nurse education programmes was hindered by the persistence of attitudinal barriers. This current study serves to fill this void of research, within the sphere of education, investigating whether such attitudes are also prevalent

Linking to research objective 3 regarding the employability prospects of someone with dyslexia, in the public sector, disabled people generally have been found to be under-represented as employees (Hurstfield, Aston, Mitchell and Ritchie, 2004). A study for the Disability Rights Commission (DRC) concluded that there was a 7% difference in the number of working age people employed with disabilities compared to their non-disabled peers, within the public sector. Similarly, within the public sector, non-disabled employees were more likely to occupy senior levels in a range of professions, such as nursing and teaching, with 54% working in senior positions compared to 44% of disabled people (DRC, 2004; RADAR, 2010).

A possible explanation could be related to the dominance of the medical model of disability with learning disabilities, such as dyslexia, being viewed as a medical issue that makes the disabled person unfit for practice. Sin (2006) asserts that before the equal opportunities agenda and the Disability Discrimination Act (DDA) which has subsequently forced organisations to consider their duties to disabled employees, such patronising and discriminating attitudes prevailed. Sin (2006) continues to argue that the DRC formally investigated fitness standards in social work, nursing and the teaching professions due to its concerns about possible discriminatory acts which could reside in the content of regulatory framework, as well as how it was being interpreted and executed in daily practice.

Employment Equality Direction (European Union, 2006) states that there are two forms of discrimination – direct and indirect. If an individual is treated less favourably than another, in a comparable situation, because of their racial or ethnic origin, religion or belief, disability, age or sexual orientation (for example, a job advertisement which says ‘no disabled people need apply’), this is classed as direct discrimination. However, discrimination often takes more subtle forms such as

indirect discrimination. Indirect discrimination occurs when an apparently unbiased practice would disadvantage people on the grounds of racial or ethnic origin, religion or belief, disability age or sexual orientation, for example an employer gives a requirement for all people who apply for a certain job to sit a test in a particular language even though that language is not necessary for the job.

Research by Harris (2001) highlighted that 36% of disabled employees declared that they had encountered discrimination in the workplace associated with their disability. In another study, 51% of participants suggested that they had been denied employment, for which they were qualified, linked to their disability. Illingworth (2005) found that nurses were:

Acutely aware of the negative attitude of other people towards those with dyslexia. This may have implications for self-image and cause undue stress through negative emotional responses (2005, p.43).

Wiles (2001) and Watkinson (2002) contend that given that there is an absence of research as to how those in the nursing profession can be competent practitioners, there exists anecdotal rhetoric focussed on negativity. The overall aim of this study is to ascertain whether a negative or positive rhetoric prevails towards those training to be primary teachers with dyslexia. More specifically, research objective 3 investigates whether the ITE stakeholders in this study would operate discriminatory practices towards those disclosing dyslexia.

2.2.3 ITE students with dyslexia

Whilst there is much research about students, with dyslexia, in HE (Jamieson and Morgan, 2008; Pavey, Meehan and Waugh, 2010), and professional occupations, research regarding ITE students with dyslexia is lacking. Despite the introduction of legislation identified earlier in this chapter, Beverton, Riddick, Dingley, English and Gallannaugh (2008) assert that when applying for ITE courses and teaching positions, many people with dyslexia still fear discrimination and are reluctant to disclose. Considering that Riddick (2003) found that seven HEIs specifically excluded students with dyslexia from their teacher training courses, through their

admissions processes, this fear of discrimination is not surprising. This practice implies that these institutions held negative views regarding the capability of those with dyslexia to pass the ITE programme and the professional standards in operation at the time. However, it must be noted that the research by Riddick (2003) was conducted prior to much of the equality legislation we now see in operation today.

For Griffiths (2011), the dominance of a standards drive approach to ITE has perpetuated attitudinal and environmental barriers to the recruitment and retention of students with disabilities, including dyslexia. Whilst some authors recognise the potential benefits that teachers with dyslexia can bring to the profession such as possessing a greater understanding of barriers to achievement (Burns and Bell, 2011) leading to a more supportive and inclusive classroom (Duquette, 2000; Morgan and Rooney, 1997 and Riddick, 2003), Griffiths (2011) believes:

They are often seen as threats to standards and a burden, requiring extra work rather than a valuable source to promote understanding and acceptance of disability in schools (Griffiths, 2011, p.2).

A range of different public sector professions are subject to professional standards and/or fitness to practice indicators and so tensions between legislation, professional bodies and HEIs can exist. It is arguable that legislation is underpinned by social models of disability but regulatory entry to certain professions such as teaching and nursing, through the application of fitness standards, are based on medical models of disability (Beverton *et al*, 2008). As Wray, Gibson and Aspland (2007) argue this may lead to students being fit to study but not necessary fit to practice.

Although students with declared disabilities, including dyslexia, are now entitled to reasonable adjustments, reducing potential barriers to their level of success, debate continues regarding the threat that these requests for reasonable adjustments may have on academic standards (Riddell and Weedon, 2006). Whilst legislation is in place to promote the use of reasonable adjustments, definitions do not pervade the legislation describing what exactly constitutes reasonable adjustments and it remains unclear, in relation to professional placements, where the universities' responsibilities end and the placements begin.

For those on an ITE programme, there appears to be a wider professional, ethical and moral tensions due to concerns that:

The drive for high literacy standards will be compromised if teachers with 'weaker' literacy standards are employed (Riddick, 2003, p.390).

This drive to promote higher literacy standards is evident in educational policy. In 1998 the Literacy Hour was introduced in England with the specific aim of increasing basic literacy skills. The impetus for this strategy came from evidence that literacy standards in the UK were much lower than those in other European countries (Brooks, 1998) yet, as argued by Fraser (1997), limited evidence exists to underpin the belief that these strategies are effective. For Fraser (1997), it is the teacher who makes a difference not the strategy.

This emphasis on standards has been further perpetuated by the media and a resultant moral panic (Crowley, 2003), underpinned further by the introduction of skills tests that prospective teachers have to pass in order to gain QTS and the revised Teacher Development Agency (TDA) Standards (TDA, 2012) which state that all teachers must have met standards in written and spoken English. For some, this perpetuates tensions between standards and equality for trainee teachers with dyslexia (DRC, 2007).

In relation to the QTS skills tests, the Dyslexic Teachers' Association emphasises that people with dyslexia can request up to 25% extra time in which to complete the skills tests, however, they suggest, following an analysis of 2001 skills test data (obtained from the TDA), that people with dyslexia are still the least likely group of candidates to pass the tests. The Dyslexic Teachers' Association questions whether such tests are necessary, for all teachers, stating:

Is it appropriate for an Art teacher, for example, who has passed all the other standards and requirements for QTS, to be subjected to more tests of their ability, when they have grade C and above in GCSE English and Maths? (Dyslexia Teachers' Association, n.d)

This raises a number of considerations. First, being a teaching professional, in all subjects, requires basic competencies in English and Mathematics (for example, when marking student work, to complete reports and to conduct data analysis), therefore, should it not be an expectation that all teachers are required to show current competency in these subjects? Second, for some perspective teachers, there has been a time gap in gaining their GCSEs and entering ITE/the teaching profession, therefore, their current competency levels do require testing. Third, is it fair to give those with the label 'dyslexia' extra time, in which to complete the tests, when others, who may experience difficulties in some aspects of literacy but who do not have an official diagnosis, are not allowed extra time?

The wider moral and ethical debate here is whether adjustments, such as extra time, should be given to those with dyslexia when they complete the QTS skills tests or whether no such adjustments should be in place, owing to the professional demands of the profession. Furthermore, whether the skills tests, in their current format, are still fit for purpose requires question. Preparation for the skills tests can be rehearsed and measure only basic literacy and mathematical skills, they do not 'test' any further competencies required of a teaching professional such as organisation or the ability to read aloud. However, it could be argued that this should be and is the role of the admissions process. Such issues are addressed further in pursuit of research objectives 2 and 3.

It is clear that the requirement, for trainee teachers, to demonstrate that they themselves have high levels of literacy has been linked to improving literacy standards in schools, raising the question of whether those individuals with difficulties in reading/writing, and indeed also numeracy, should be allowed to teach (Riddick 2003, 2006; Beverton *et al*, 2008). Such concerns are compounded further by the need for trainee teachers to, "develop a clear understanding of synthetic phonics" (DfE, 2011). This may cause difficulty for students with dyslexia given that the most widely accepted cause of dyslexia (as discussed later in this chapter) is that of a phonological deficit (Riddick, 2003). These issues are explored in relation to research objective 2 of this thesis.

The demands of teacher training courses are unquestionably high as these typically combine an academic degree and a professional qualification (QTS). Farmer, Riddick and Sterling (2002) identified several issues that may present particular challenge to students with dyslexia. These include: reading and memory tasks, written assessments, different types of organisational skills, oral language and the skills tests. Although the student with dyslexia may empathise with and understand the issues faced by children with dyslexia (Morgan and Rooney, 1997), they will, to varying degrees, require additional support during training to overcome barriers to their own pedagogical efficacy (Morgan and Burn, 2000). This in itself could prove problematic as Reid (2008) suggests, many students are not accustomed to requesting help and may be intimidated by academia.

The issue of professional placements and mentoring also require examination. As ITE is moving more towards a school based approach, through the introduction of programmes such as School Direct (SD), it is arguable that both mentors and placements are evermore centripetal to the success of students with dyslexia. Timmerman (2009) suggests that it is vitally important that placements and mentors are carefully selected to support a trainee teacher with a disability. The Equality Act (2010) and PSED (2011) serve to protect those with disabilities whilst on placement. However, there are issues with this.

First, whilst a student may disclose a disability to the HEI, the HEI has no legal power to disclose this to the professional placement setting and/or mentor. If a student chooses not to inform their placement school, then a mentor may remain unaware of their mentee's needs. Some schools, on knowing that a student has dyslexia may subsequently withdraw their offer of a placement. Examples of such behaviour have been witnessed personally. Various reasons may be attributed to such a decision, for example, the pressures of an impending Ofsted visit, SATs, parents and governors but at the heart of this decision lies the underlying notion that trainee teachers with dyslexia are somewhat of a risk compared to their non-dyslexic counterparts (Beverton *et al*, 2008).

The University of Southampton in their documentation, 'Supporting Dyslexic Trainees and Teachers' (n.d) identified a number of challenges that those with dyslexia may face whilst on professional placement. These included, issues with spellings, the completion of paperwork (such as report writing, lesson plans), remembering names of children, organisation and time management, marking of work and writing on the board. Griffiths (2011) similarly concluded that all participants, with dyslexia, in her study reported challenges on placement linked to memory, organisation, communication and literacy. On the basis of such difficulties, this may explain why some stakeholders perceive those with dyslexia as a potential risk and develop negative attitudes towards such entrants to the profession (Beverton *et al*, 2008). Perceived strengths and challenges are explored in light of research objective 2.

It is the perceived fear of stigmatisation and discrimination that Beverton *et al* (2008) and Riddick (2003) identify as being the one of the principal, underlying factors of non-disclosure of dyslexia. Riddick (2003) continues to assert that the value of positive attributes that a practitioner with dyslexia can bring to the work place are rarely acknowledged. Similarly, Morris and Turnball (2006) concluded that many people with dyslexia on professional placement felt disclosure would bring ridicule, embarrassment or at best apathy and misunderstanding of their needs. For Onken and Salten (2000) this is symptomatic of a society that prizes perfection, where "differences are not valued" and "...unique strengths and contributions are ignored" (p.101 and 110). The research of Morris and Turnball (2006) highlights how the culture of the university based training, for nurses, presents a stark contrast to the culture of many work place settings. This issue lacks research in the realm of education and serves as a driver for this overarching research aim of this thesis.

The lack of disclosure is not confined to the course application process and subsequent training period but rather continues following qualification and registration to a professional body. Blankfield (2001) concluded that many healthcare practitioners were reluctant to disclose their dyslexia fearing job discrimination. These research findings are not confined to the UK but are replicated elsewhere. A study by Greenbaum, Graham and Scales (1996), in the USA,

investigated disclosure rates of 49 university graduates. Only nine of these graduates disclosed their dyslexia when applying for their first post. The research findings suggest that those with dyslexia perceive potential mentors and employers as holding prejudiced and misinformed attitudes, due to lack of knowledge and understanding, regarding the disability and their potential to be successful in the workplace, a view also supported by the research of Morris and Turnbull (2006). McLaughlin, Bell and Stringer, (2004) investigated employer and co-worker attitudes towards disability. They concluded that disability type does not directly affect acceptance, it is the role of stigma which determines acceptance. If this is the case, then this can be perceived as encouraging. If 'stigma' is defined as a set of social perceptions, these can be challenged through education/training.

The need for explicit dyslexia training and awareness has been acknowledged and is at the heart of a recent campaign by the British Dyslexia Association (BDA) which suggests that all students on ITE programmes should receive discrete sessions about dyslexia. This may influence future attitudes of those working within education, towards dyslexia, and potentially reduce prejudice.

2.2.4 Reasonable adjustments

Reasonable adjustments are now embedded within equality law for those with disabilities (Equality Act, 2010). Reasonable adjustments aim to remove barriers that could, possibly, put someone with a disability at a disadvantage over those without. In terms of academic study, Konur (2006) has identified a number of types of adjustment to reduce potential barriers to success for someone with dyslexia. These adjustments are: presentation format (the way information is presented to students such as in hand-outs or podcasts), response format (where students should be allowed to complete an assignment in their own preferred style such as a poster), timing (being allowed extra time to complete assessments both written and practical), and setting (for example having readers or a different room to complete assessments). For courses with a professional placement, reasonable adjustments may also be needed for the placement experiences undertaken. With regard to HE students, who are training to become teachers, ultimate responsibility for this falls on the HEI, unless the student is following a salaried route into teaching.

As identified by the Equality Challenge Unit (2010) most universities and colleges now have designated staff, operating within student service centres, who serve to devise support plans, incorporating reasonable adjustments, for those students with disabilities. However, tensions may arise when support staff do not have a teaching background/QTS themselves. This void in professional knowledge can result in students having robust support plans and reasonable adjustments in place for academic study but not, necessarily, for their time on teaching placement. This issue may be further compounded by the individual nature of dyslexia, from which it follows that not all strategies or support are relevant to all with dyslexia - one size does not fit all.

Academic reasonable adjustments, such as time extensions for assignments and note takers, do not easily translate over into professional practice. In some scenarios, students, with dyslexia, have requested that their support plan states that they should be given at least 24 hours advance warning of reading aloud unknown texts for both their academic study and whilst on professional practice. On a teaching course which has to adhere to professional standards, students must demonstrate that they can meet the standards set by the governing council for that profession namely, the Teachers' Standards to gain QTS (TDA, 2012), as such it has to be questioned whether giving 24 hours advance notice of reading an unseen text is a reasonable adjustment in the teaching profession, where flexibility, the need to change plans, in response to learners' respective/diverse needs, at short notice and an ability to demonstrate reading competency are a requirement.

Tensions arise here between a moral commitment to promoting inclusivity through the application of a social model of disability and the removal of barriers and the need to be successful in the profession through showing capability to meet the daily demands, roles and responsibilities of teaching. Issues of disruption, resources, availability of assistance, cost and practicalities can be raised. These issues may be of concern to potential Headteachers when employing disabled staff. Goldstone (2002) concluded that costs for adjustments for the retention of staff with disabilities were higher than for new recruits without a disability. In addition, Cohen (2004) raises the debate of standards and the boundary between affording reasonable

adjustments and being unfair to others without the label, resonating with Elliott's (2004) argument of inequity of access to support. These issues may influence responses to research objectives 2 and 3.

2.2.5 Section summary – dyslexia in HE

This section has shown that legislation surrounding the notions of disability, have, arguably, helped to increase the rights of individuals with diagnosed disabilities with regards to educational opportunity and equality. The European Higher Education Agreement (2010) and Equality Act (2010) place more emphasis on HEIs to ensure equality of access and the reduction of discrimination. This, allied with the widening participation agenda, has led to an increase of those disabilities entering HE. It has also been shown that, for a number of possible reasons, the number of people with diagnosed dyslexia has risen dramatically over recent decades and with this access to resources (financial and human) to support success.

Consideration has been given to previous research which has highlighted some of the perceived challenges experienced by those with dyslexia, both academically and whilst on professional placement, from the viewpoint of lecturers and/or students with dyslexia. Riddick (2003) identified strengths which those with dyslexia believe, themselves, to bring the teaching profession. It is clear, however, that despite these strengths, there is still a stigma and negative connotations surrounding the term 'dyslexia'.

Tensions can exist between inclusive legislation and expectations of professional bodies. The issues do not just concern students on ITE programmes but other professional courses. It is clear that the teaching profession is driven by standards. This research seeks to investigate whether this focus on standards influences attitudes of potential employers of the suitability of those with dyslexia to teach thus impacting upon employability prospects.

2.3 Understanding dyslexia – theoretical background

The phenomenon that is 'dyslexia' is a key concept underpinning the research aim of this thesis and research objective 1. For the reader to begin to comprehend the 'dyslexic condition', it is important to analyse and deconstruct various models and definitions of dyslexia so as to outline its characteristics. Whilst a full history of dyslexia and its potential causes is beyond the scope of this literature review, a brief synopsis will be provided. It is evident that a plurality of researchers from different fields of expertise, have tried to define dyslexia (Guardiola, 2001). Subsequently, definitions can vary dependent upon the professional backgrounds, personal interests and motives of researchers and what they perceive to constitute the underlying cause of dyslexia (Ott, 1997). The process of defining, and researching, dyslexia is entwined with models of disability, thus dyslexia is fraught with complexities. It remains a greatly debated and researched area in medical, psychological and social disciplines (Rice and Brooks, 2004).

2.3.1 Historical context

Despite its current prevalence, dyslexia is by no means a modern phenomenon. Critchley (1996) asserts that the earliest mention of dyslexia or 'word-blindness' can be traced back to the work of Thomas Willis, writing in his article titled 'De Anima Brutorum', in 1672. This work long predates the more widely known work Adolf Kussmaul (1877), a German neurologist, who worked with stroke victims. Kussmaul attributed the 'word blindness' to people with:

Good intellect who used words in the wrong places and often distorted them, leaving on the minds of the observers the impression that they are crazed (Kussmaul, 1877 cited in Miles and Miles, 1999, p.31).

In 1896, the British Medical Journal published an article by Pringle Morgan who spoke of a young boy, Percy, who, despite being of 'normal intelligence' could not spell his name correctly. Much of Pringle's assertions are derived from his work with adults who had sustained brain injuries, or tumours, and a subsequent result loss of ability to read. This condition he termed, 'acquired alexia' (Shaywitz, 2003).

Today, the term 'acquired *dyslexia*' is used to describe dyslexia which can be attributed to some form of neurological damage. Such damage is the result a stroke or brain trauma but can also be prevalent prenatally. People diagnosed with acquired dyslexia are born with or lose particular reading and writing abilities/difficulties because of an injury they have sustained. Acquired dyslexia can be acquired at any time in an individual's life, regardless of age, sex, social class and ethnicity.

The concept of 'developmental dyslexia' was developed in the late 1800's following studies undertaken by Hinshelwood (1895), who believed that the defect involved the acquisition and storage in the brain of the visual memories of letters and words. This defect was hereditary, underpinned by biological deficiencies but remediable. Later, Orton (1929), a neuropathologist and psychiatrist, described strephosymbolia, otherwise referred to as 'twisted symbols' as the difficulty his patients had with words - his patients tending to reverse letters or transpose their order (Orton, 1929). For Orton, these characteristics were similar to those displayed by patients who had suffered left hemisphere cranium trauma, thus arose Orton's theory that dyslexia was the result of a deficiency in the development of the left hemisphere. Consistent with genetic deficit theories, Orton showed that these deficits ran in families. From a consideration of Orton's theory, developmental dyslexia connotes a failure in 'normal' development rather than a 'loss' as in acquired dyslexia (Vinegard, 1992).

Shaywitz and Shaywitz (2005) support this view, asserting that when children and adults experience unexpected difficulties in reading, despite possessing otherwise 'normal' levels of schooling, motivation and intelligence commonly considered necessary for accurate reading, then developmental dyslexia must be diagnosed. Criticisms of such a claim can be made and questions raised regarding the notion of 'normal' levels of particular characteristics – these will be discussed later in this chapter.

It must be noted here that this study will explore attitudes towards those with either developmental or acquired dyslexia, training to be teachers - it is not attitudes towards a particular type of dyslexia that is under investigation.

2.3.2 Deficits and deficiencies: Medical models of disability

The medical model of disability, widely used in psychology, describes dyslexia within the pathology model and has dominated dyslexia literature throughout its one hundred and fifty year history. This model assumes that we are dealing with illnesses that require treatment, either psychologically or somatically (Gleitman, 1981; Finkelstein, 2007). Within this model 'the disabled' are a group of people with range of 'problems' which are best described as departures from what is 'normal'. Dyslexia is usually seen to manifest itself, at least in part, as a deficiency in acquiring the skills associated with literacy; reading, writing and spelling. 'Normal' people (using the medical-model sense of the word) usually have relatively little difficulty acquiring these skills as part of their early schooling. The dominant view is one which sees dyslexia as a disability and a problem attributable to the individual for failing to learn appropriately due to inherent deficiencies (Herrington and Hunter-Carsch, 2001). This has changed little from its earliest identification.

2.3.3 Dyslexia as a social construction: Social models of disability

For proponents of the social model of disability, dyslexia, as a disability, can only exist in cultures which privilege literacy (Shakespeare and Watson, 2002). Dyslexia is not *influenced* by the environment, through our dependence on the written word, the socio-cultural environment *creates* dyslexia. Extrinsic cultural forces have constructed the difficulty not the neurology of the individuals in the minority (McDermott and Varenne, 1995). This minority is labelled 'dyslexic' but the label is a product of the cultural privileging of reading and writing over a very short time span (Kress, 2000).

We would argue that dyslexia is an experience that arises out of natural human diversity on the one hand and a world on the other where the early learning of literacy, and good personal organisation and working memory is mistakenly used as a marker of 'intelligence'. The problem here is seeing difference incorrectly as 'deficit' (Cooper, 2006).

Supporters of the social model do not deny the existence of medical difficulties associated with disabilities but are more focused on equipping and empowering those with disabilities to reduce the barriers that society has constructed (Shakespeare and Watson, 2002; Oliver, 1990). At the heart of the social model lies the importance of addressing and changing attitudes and beliefs held by wider society, towards those people with disabilities, as opposed to changing people with disabilities themselves. In this model, it is the negative views and attitudes of society that transform impairments into disabilities.

The social model of disability, which underpins much inclusive legislation, is not without its critics. Shakespeare and Watson (2002) propose that the social model, as advocated in the United Kingdom, is now an outdated ideology, asserting that people are disabled not only by society but also by their bodies and that it is folly not to acknowledge this. For Shakespeare and Erickson (2000), a modern theory of disability, rather than creating a dichotomy in which disability is either social or medical, should include political, social, cultural, psychological, social and bodily dimensions of an individual.

2.3.4 Definitions of dyslexia

In pursuit of research objective 1, it is important to consider established definitions of dyslexia. Early definitions of dyslexia, informed by the medical model of disability, focussed on norms of brain function and regular educational instruction resulting in failure. These exclusionist definitions labelled individuals as having dyslexia if no alternative explanations could be attributed to their reading and writing difficulties. For example, Critchley, described dyslexia as:

A disorder manifested by difficulty in learning to read despite conventional instruction, adequate intelligence, and sociocultural opportunity. It is dependent upon fundamental cognitive disabilities which are frequently of constitutional origin (Critchley, 1970, p.11).

Exclusionist definitions are problematic on several grounds. First, they are based on assumptions regarding factors which might affect an individual's ability to learn to read. Arguably, 'adequate intelligence' is one of the most problematic exclusionary criterion as questions can be raised with regard to who defines these perimeters and what constitutes adequate intelligence. While intelligence quotient (IQ) can correlate with reading ability, a low IQ is not a defining characteristic of all individuals who have dyslexia (Open University Learning Space, 2011). The criterion of 'sociocultural opportunity' implies that children with parents who for financial, cultural or linguistic reasons, read to them less, and people from lower income households with limited access to books, can also be expected to fail to learn to read. Dyslexia transcends all social classes and levels of intelligence and occurs at similar rates in all countries and cultures where written literacy is given high status (Fabio, 2014). This is not to say that social, economic, cultural and personal factors do not influence the rate and extent of someone's development in literacy skills however, these factors may also be quite independent of the predisposition to dyslexia.

Definitions using exclusionary criteria are also seen as problematic by Catts (1989). Catts asserts that such definitions provide limited descriptions of the characteristics present in this cognitive condition and therefore the identification of people as dyslexic becomes a difficult process. If a sufficient definition of dyslexia, by using exclusionary definitions is desired, then a list of the factors that are known to be present in the disorder need also to be presented (Catts, 1989). However, Prior (1996), suggests that some parents and teaching professionals prefer definitions using exclusionary criteria because of a need to feel that the problem is medical and so a medical explanation and cure can be applied. This may explain why dyslexia is a term that has, in some instances, been used to 'explain away' reading failure amongst children whose background does not conform to desired standards, hence dyslexia being coined as, "a label used by middle-class parents who fear their children are being branded stupid" (Elliott, 2004).

For others, a defining feature of dyslexia is one of a discrepancy between potential and actual achievement (Siegel, 2006). Such definitions, by their nature, and origins, reflect the statistical approach to defining 'abnormality'. Essentially, age and level of intelligence is compared to poor performance in reading and writing (Riddick, 1996). This model embodies the view that diagnosis of dyslexia is based on the notion of *discrepancy* between what the pupil *is* achieving in literacy and what they can reasonably be *expected* to achieve on the basis of age and intellectual ability. It is assumed that the pupil has experienced 'normal' education and that the problems are not primarily due to any emotional or medical cause. This was particularly the case in the 1970s and 1980s when it was assumed that poor readers with high aptitude (as ascertained by IQ test performance) were cognitively different from poor readers of low aptitude (Stanovich, 1994).

In critique of discrepancy definitions, Siegel (1992) reports that research findings demonstrate there are no cognitive differences occurring between those children with poor reading and high aptitude and those with poor reading and low aptitude. A further concern with discrepancy definitions is highlighted by Geurin-Burns (2013) who claims that, for a formal diagnosis to be considered valid, a child must fail to learn to read for two years. For a child to have the crucial early years at school blighted by failure to acquire one of life's fundamental skills, is potentially destructive and unethical. Snowling (2006) also views such definitions as problematic, as they cannot be used for young children, who are unable to read due their development stage, making their identification by these means impossible.

A further critique of discrepancy definitions relates to the assessments that are used. Rudel (1985) found significant differences in the results of two reading tests given to the same children. Hall (2009) suggests that different reading tests can measure different aspects of reading. For example, where one may measure word identification, another may measure levels of comprehension. Upon the basis of this variation, allied with variations in boundary 'cut offs' and procedures employed, reading tests are not a reliable indicator of a child's ability or even attainment at a particular point in time.

Perhaps an equally fundamental difficulty lies in the concept of IQ itself which, like intelligence, remains a controversial concept (Stanovich, 1991). Limitations of historical concepts of 'intelligence' and IQ are explored by critics such as Stanovich (1991) who argue that whilst IQ tests may measure the *notion* of IQ they are not an accurate measure of intelligence in its broadest sense. To base a concept of intelligence on IQ test scores alone is to ignore many important aspects of mental ability, creativeness and emotional intelligence.

In more recent years, broader definitions have been provided. The BDA (2007) describes dyslexia as:

A specific learning difficulty that mainly affects the development of literacy and language related skills. It is likely to be present at birth and to be life-long in its effects. It is characterised by difficulties with phonological processing, rapid naming, working memory, processing speed, and the automatic development of skills that may not match up to an individual's other cognitive abilities. It tends to be resistant to conventional teaching methods, but its effect can be mitigated by appropriately specific intervention, including the application of information technology and supportive counselling.

This definition whilst descriptive in nature still puts an emphasis on reading ability and as such is rather limiting. Other issues such as speech, writing, co-ordination and organisational difficulties are omitted (MacDonald, 2009). Sir Jim Rose's Report on 'Identifying and Teaching Children and Young People with Dyslexia and Literacy Difficulties' (2009) defined dyslexia as:

- A learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling.
- Characteristic features of dyslexia are difficulties in phonological awareness, verbal memory and verbal processing speed.
- Dyslexia occurs across the range of intellectual abilities.
- It is best thought of as a continuum, not a distinct category, and there are no clear cut-off points.
- Co-occurring difficulties may be seen in aspects of language, motor co-ordination, mental calculation, concentration and personal organisation, but these are not, by themselves, markers of dyslexia.

- A good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well-founded intervention.

Although a comprehensive definition, some of the key characteristics remain omitted. These include visual processing (which can lead to words appearing jumbled and moving on the page – see Appendix 1 for examples of visual processing issues experienced by some with dyslexia) and poor short-term memory. It is clear that Rose perceives dyslexia, not as a distinct category but rather as a continuum, much like a number of other disorders (Rack, 2009). Indeed, Dyslexia Action's chief executive, Shirley Cramer, has further to Rose's definition, described dyslexia as a "basket of issues" (cited in Smith 2009, p.3), stating that whilst reading difficulties are a classic symptom of dyslexia other difficulties are often also involved, and some could occur together.

An analysis of these descriptive definitions reveals that they seek to inform people about the different characteristics and manifestations of dyslexia. They avoid exclusionary criteria and use more explanatory elements to help individuals understand the term (Elliott and Place, 2004). Such definitions try to incorporate the varied nature and range of symptoms that can be experienced by individuals with dyslexic tendencies, although neither definition gives any explanation of the possible causes. Both are highly descriptive in nature, and appear almost checklist like of possible difficulties with no strengths identified. Attree *et al* (2009) assert that people with dyslexia show abilities such as creativity and visuospatial abilities which are actively sought by employers and the same factors that cause literacy difficulties may also be responsible for highlighting positive attributes - such as problem solving which can lead to more originality and creativity (Schloss, 1999).

Having considered the plethora of definitions provided within the literature, I propose that dyslexia is characterised by potential discrepancies in educational outcomes, linked to difficulties in literacy acquisition. Cognitive processes, including organisation, speed of processing, time management, automaticity, memory and coordination may also be affected with potential phonological and visual processing

difficulties. These characteristics exist on a spectrum from mild to severe and can be influenced, both positively and negatively, by the learning/work context and instructional methods.

2.3.5 Dyslexia – the absence of a shared understanding

The previous discussion highlights ongoing contention amongst authors regarding the term 'dyslexia'. Mortimore (2008) asserts that this mass array of definitions and accompanying multiplicity of attributes that have been described, by different researchers in the field, has been unhelpful for people with dyslexia, parents and professionals working within the field and has caused scepticism for its very existence (Elliott, 2008). This links to research objective 1 of this thesis, to establish awareness and understanding of dyslexia, to ascertain whether there is a shared understanding of the terminology amongst stakeholders involved in ITE.

Lyon (1995) claims that whilst a definition should aid the understanding of dyslexia, in scientific, clinical and educational terms, instead non-validated and vague descriptions prevail which serve to be of little use. Chia (1996) presents three principal reasons to explain the lack of a universally accepted definition of dyslexia these included lack of identification of correlates of dyslexia; poor understanding of the relationship between language acquisition and reading; and the presence of too many synonyms for dyslexia. Arguably, one of the major barriers to an agreed definition of the term stems from the multiplicitous nature of dyslexia. Disagreement amongst professionals remains prevalent. In an examination of definitions, presented by scientists, academics, institutions and government bodies, Hammill (1990) classified 43 definitions, whilst more recently, Rice and Brooks (2004), identified 28 differing definitions. An in-depth examination of these definitions, Michail (2010, p.18) reveals that:

The only characteristic of dyslexia, upon which they all agree, is the reading accuracy deficit; this is followed by cognitive impairment (fifteen definitions), age discrepancy (fourteen definitions), IQ discrepancy (twelve definitions) and spelling fluency accuracy (eleven definitions).

A shared definition and descriptions of the characteristics, of dyslexia, and to facilitate the identification of appropriate support in order to reduce the difficulties that people with dyslexia face, are seen as imperative by Sinclair (1995). For some authors in the field, the existence of such a precise definition and description of the accompanying attributes would make it easier to label both adults and children as having dyslexia and this could lead to misclassification and ill-informed support (Tonnessen, 1997).

The whole notion of dyslexia can raise issues of unequal access to resources, debarring those without the label from receiving the same level of support (Elliott, 2008). The use of the label 'dyslexia' serves to marginalise those with literacy difficulties and excludes them from a wealth of resources. In line with the medical model of disability, the current methods of testing for and use of the term dyslexia, for Elliott (2008) implies that the individual can be 'fixed'. Elliott suggests there is an innate need for parents to obtain labels as the possession of a label allows access to intervention, support and funding which is believed to mitigate the issues experienced. However, for Elliott this intervention and support is ineffective, diverting resources away from others without the label.

Elliott and Grigorenko (2014) suggest that instead of testing for dyslexia, all learners should be monitored and any learner showing resistance to traditional teaching methods afforded support/intervention strategies. At the heart of Elliott and Grigorenko's (2014) argument is the belief that the term 'dyslexia', as is commonly used, is meaningless, a view supported by Stanovich (1994). Elliott and Grigorenko (2014) assert that the list of co-morbid characteristics, which are also characteristic of a plethora of 'disorders', such as attention deficit disorder and dyspraxia, renders the term useless owing to its vagaries. Elliott (2008) continues that many individuals can experience many of the characteristics linked to dyslexia yet are not considered to be 'dyslexic'. To support his case, Elliott exemplifies the use of letter reversals which are deemed a characteristic of dyslexia but which is also a common error at the early stages of reading/writing (Cassar, Treiman, Moats, Pollo, and Kessler, 2005).

In a system which measures school success via testing in Literacy and Numeracy, 'illiteracy' is seen as unsuccessful. In line with the social model of disability, Elliott and Gibbs (2008) believe that dyslexia is, in part, a social construction, with schools perpetuating a category of disability to explain away children with inadequate levels of literacy. Similarly, Stringer asserts that dyslexia is a social construction created by those working within education to mask poor teaching. For Stringer, dyslexia is nothing but a 'cruel fiction' that should be consigned to the 'dustbin of history' (BBC News, 2009).

However, just because our understanding of dyslexia may be limited, it is my belief that this is no justification for abandonment of the term nor justification that dyslexia does not exist. For those with the label 'dyslexia', this affords a level of understanding of their strengths and weaknesses and possible ways in which the latter may be mitigated (National Institute of Adult Continuing Education, 2005).

2.3.6 Causes and consequences

Turning to a consideration of potential causes of dyslexia, in more recent times, sociologists, psychologists and educators have contributed to the field of dyslexia, contributing to the proliferation of new theories which, in contrast to the earlier biological and genetic causes, began to consider environmental effects, such as inefficacy of educational methods employed, on dyslexia. One of the most notable and dominant contemporary theories of dyslexia is the Phonological Deficit Theory as espoused by researchers such as Snowling (2000).

The Phonological Deficit Theory

Aspects of difficulty with memory have been linked to many features of dyslexia. A high proportion of people who have dyslexia have reportedly stated a difficulty with tasks which require short-term memory processing. Such tasks include mental arithmetic, reading and writing new information. These tasks also have an additional common feature – a phonological component – which requires the processing of speech sounds in the short-term memory.

The phonological deficit theory remains, arguably, as the dominant theory to explain dyslexia (Hall, 2009). Proponents of this theory postulate that people with dyslexia exhibit an impairment in the representation, storage and/or retrieval of the smallest units of speech sound (phonemes). The way in which, “the brain codes or represents the spoken attributes of the words” (Snowling, 2000, p.35) remains the key focus for advocates of this theory. Essentially, it is believed that people with dyslexia, regardless of their level of IQ, experience difficulties in phonological processing (Stanovitch and Siegel, 1994 in Snowling, 2004; Shaywitz and Shaywitz, 2005).

Learning to read requires learning the alphabet and the grapheme-phoneme correspondences. If the sounds are poorly represented, stored and retrieved, this will clearly impact upon learning (Fawcett, 2001). More able readers can manipulate sounds in words and as such progress well in their reading compared to those individuals who have weak phonological skills (Hatcher, 1994; Tijms, 2004). For Shaywitz and Shaywitz (2005, p.1301) speech constitutes a “natural and inherent” phenomena whereas reading is “acquired and taught”. In order to master the skill of reading, an understanding of grapheme and phoneme correspondence is needed. Here lies the understanding that the spoken language is represented by letters (graphemes) and that words can be segmented down into smaller individual sounds (phonemes).

From this it follows that competent readers are those who are able to segment a word down into its smaller parts (onset and rime) and then blend the connected sounds together. For Doyle (2002); Shaywitz and Shaywitz (2005) it is the segmenting, decoding and manipulating of sounds in this way that individuals with dyslexia find challenging. For Boder (1971), it is the relationship between form, shape and sound which poses difficulty.

Evidence suggests that individuals with dyslexia can experience issues with short term memory and subsequent transference of information into the long term memory. As verbal material is stored in the short term memory, this can then impact negatively on the recall of verbal items compared to non-dyslexic individuals

(Snowling, 2004; 2000). The phoneme deficit theory makes a link between a cognitive deficit and the behavioural problem to be explained. Neurological and anatomical research, supports the idea of a, “congenital dysfunction of the left hemisphere, perisylvian brain areas underlying phonological representations” (Shaywitz, 2002, p.135). Research findings indicate that people with dyslexia experience problems with their phonological representations and this can restrict their reading abilities (Hall, 2009). To become more confident and competent readers in the future, individuals with dyslexia need help to improve their phonological skills.

For Tonnesson (1995), it is too simplistic to assert that dyslexia is the result of phonological difficulties. Indeed, it is argued that whilst many individuals with dyslexia do have difficulties with phonology, many do not, with many children with dyslexia performing equally well as their non-dyslexic peers on phonological processing tests. By assessing only poor phonology there is the danger that a significant proportion of people with dyslexia may be missed who will then experience issues later on in their schooling career, requiring much greater and intense levels of support (Chard and Dickson, 1999). A reliable test of phonological processing is needed, which is scientifically valid, in order to screen children, to find those with poor phonology. However, with or without a valid scientific test, it has been shown that intervention programmes, specifically designed to improve phonological processing are not always effective.

Ramus (2003) argues that people with dyslexia have, in addition to potential phonological awareness difficulties, at least two other major phonological problems. These are namely, rapid naming (of pictures, colours, digits and letters) and verbal short-term memory, neither of which can be said to rely on reading. In recent literature, a major debate continues as to whether rapid naming and verbal short term memory are independent phonological deficits or whether they constitute different manifestations of a single underlying deficit. Some evidence has been provided to suggest that rapid naming deficits and phonological awareness are independent but the debate continues.

Much of the research into the phonological awareness and deficit is based upon children for whom English is their first language. This can present a rather misleading picture as letter-sound correspondences are both irregular and complex within the English language. Different letters and combinations of letters can make a variety of different sounds resulting in an inconsistent grapheme-phoneme correspondence. Indeed, as Ziegler and Goswami (2005) posit, fewer learners have difficulties when learning languages which have a transparent orthography, such as Spanish, Italian and Turkish. The Open University Learning Space Website (2011), claims:

Research into other languages is ongoing, but there does seem to be evidence of phonological deficits in people with dyslexia (and at risk of dyslexia) who learn to read in more regular languages.

Almost all other types of reading difficulty incorporate a phonological processing deficit and so raises the question as to what differentiates these reading difficulties from dyslexia. In short, whilst the phonological deficit may explain the reading and writing difficulties, often associated with dyslexia, this alone does not account for the full range of symptoms that can be observed amongst people with dyslexia. It therefore, seems likely that a phonological deficit is just one of several components associated with the condition.

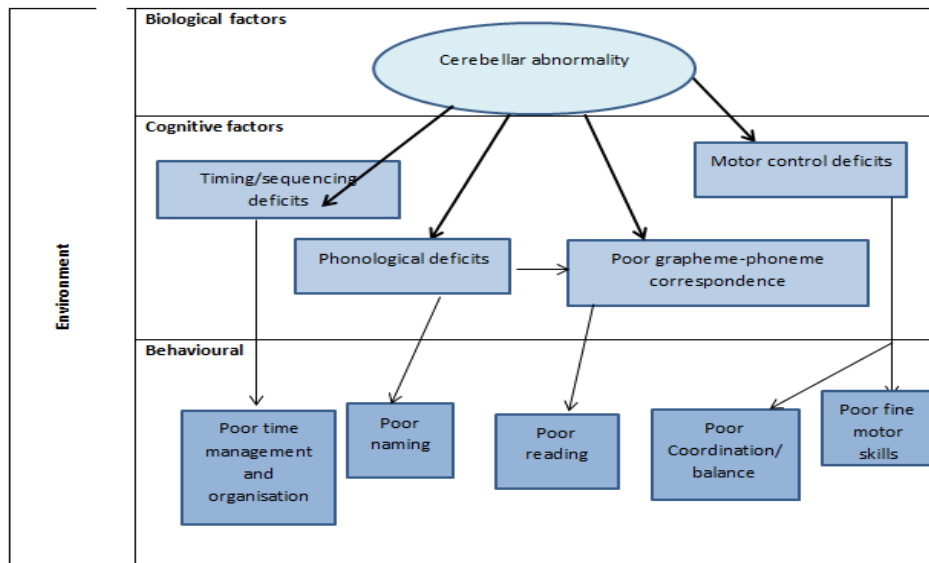
Causal Modelling - Frith's 3 stage model

In an attempt to explain dyslexia and the nature of developmental difficulties, Frith (1999) developed a three-perspective framework. As this model brings together a number of different approaches of understanding dyslexia, the model has become widely known and supported in the domain of research regarding dyslexia.

In this framework there are three perspectives of description - the biological perspective (this relates to the brain structure and linkages or anomalies as well as genetic factors, this also includes neuro-physiological explanations); the cognitive perspective (that is, the thinking process, memory, perception and attention); and the behavioural perspective (this relates to the behaviours enacted when tackling the process of skill formation to enable reading, spelling, writing and mathematics).

Within this model, running alongside all three elements, is the recognition that environment factors, including the learning environment and attitudes of society towards a disability, are also important. An adaption of Frith's model is located in Figure 1.

Figure 1: A theoretical causal model adapted from Frith



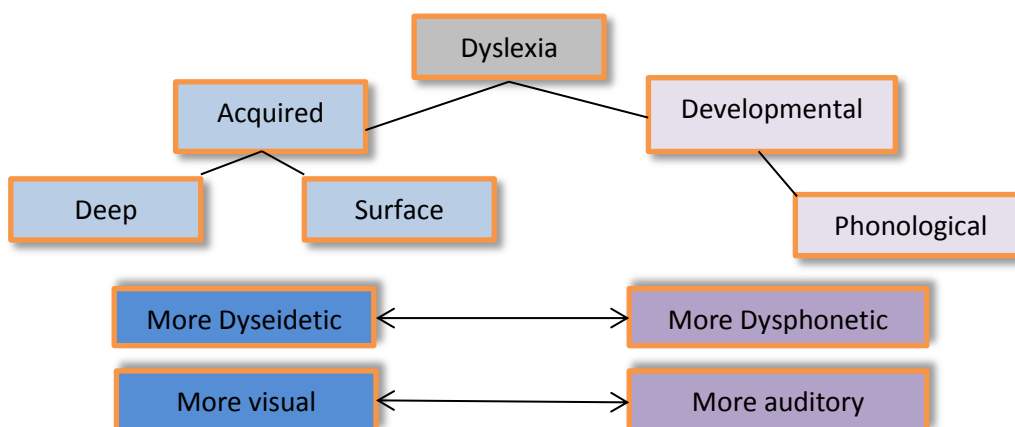
It is evident, that perspectives underpinned by biology and cognition afford theoretical explanations which require validation via experimental means. Behavioural perspectives on the other hand are less debated due to behaviours being able to be directly observed. For Frith, it is a grave error to only consider one aspect of the framework as one aspect may impact on another. To illustrate this point, damage to a given area of the brain (biological perspective) may result in inability to transfer information from the short-term memory to the long term memory (cognitive perspective) resulting in the individual being unable to store new long-term memories (behavioural perspective). Instead, a 'holistic' approach, which takes into consideration the range of factors that may influence it, should be incorporated (Frith, 1999).

As stated at the outset of this chapter a full consideration of all modern theories/models of dyslexia, is beyond the scope of this thesis however, an overview of additional theories/models of dyslexia are located in Appendix 2.

2.3.7 Types of dyslexia

As a result of the various models and theories of the causes of dyslexia, theorists have sought to classify those with dyslexia into broad categories (Snowling, 2000). Figure 2 provides a visual representation of such classification of subtypes of dyslexia adapted from the findings of Boder (1971)

Figure 2: Subtypes of dyslexia (adapted from Boder, 1971)



There are three types of dyslexia which arise from the work of Boder (1971). These are namely, Dysphonetic, Dyseiditic and Mixed Dyslexics (Snowling, 2000). Dysphonetic dyslexics also referred to as “auditory dyslexia” relates to those for whom issues arise due to the way in which they hear and mentally process sounds (Ripley, Daines and Barrett, 2002). For people with this type of dyslexia, difficulties exist in connecting sounds and symbols resulting in poor spelling and limited vocabulary. For Miller (1991), dysphonetic dyslexics prove resistant to traditional phonetic approaches and require small group interventions, for an extended period of time.

Dyseiditic dyslexia also called “surface dyslexia” or “visual dyslexia” relates to how an individual sees and mentally processes the symbols, letters and word concepts of their language into connecting written formats (Ripley *et al*, 2002). Whilst individuals with dyseiditic dyslexia have an understanding of phonetic structures, of their given language, they struggle with word recognition and spelling, often having difficulty in memorising the visual shape of letters and words (Snowling, 2000).

As a result, reversal of letters such as d/b, p/b are common errors. For Miller (1991), dyseiditic dyslexics need to learn letter sounds systematically, then the shapes of the letters and finally how to combine the letters to be able to read the word.

Mixed dyslexics have a combination of the two previous types of dyslexia detailed above. Sometimes called “dysphoneiditic” dyslexia, it is, arguably, the severest form of the condition and often the most difficult to support (Ripley *et al*, 2002). Some authors in the field, such as Ripley, Daines and Barrett (2002) believe that there is a fourth type of developmental dyslexia called dyspraxia (a learning disability associated with difficulties in coordination and organisation of movement). However others dismiss this claim stating that dyspraxia does not belong to the types of dyslexia but to the category of Specific Learning Difficulties (Snowling, 2000).

2.3.8 Section summary – definitions and models of dyslexia

The definitions presented within this chapter are by no means exhaustive:

The history of dyslexia research is littered with theories that were once widely supported but now lie abandoned on the scrap heap... (Ellis, McDougall, Sine and Monk, 1997, p.13-14).

Definitions of dyslexia are problematic in that some are so broad they appear to be almost meaningless, some are confused and imprecise in their use of terminology, whilst some say next to nothing. The only certainty about dyslexia is that there is no consensus. The quest for an adequate definition is important because the definition may determine the nature of the assessment techniques employed, the allocation and provision of resources which could exclude individuals who may not meet the criteria in terms of reading but may have severe difficulty with spelling or writing, and ultimately may influence individual’s perceptions and attitudes towards those with dyslexia which may impact on employability.

Throughout this section consideration has been given to the dominant models of dyslexia that pervade literature. Questions have been asked in order to ascertain whether dyslexia is indeed a medical disorder or an entity that exists only as a socially constructed/imposed disability in a society that places high value on literacy

skills in order to achieve academically. Indeed, if we lived in a society in which less emphasis was given to reading and writing, arguably, the individual with dyslexia would not have to suffer the consequences and difficulties they have as a result of their diagnosis.

Consideration has also been given to some of the dominant theories which aim to explain the causal effects of dyslexia. From an analysis of both past and current research, it is evident that there is still a long way to go until all the 'mysteries' that surround dyslexia and its manifestations will be unravelled, as such many questions regarding its origins and causes still remain.

2.4 Attitudes

This study aims to add to the existing body of knowledge and research not only to explore the attitudes towards trainee teachers, with dyslexia, held by stakeholders but also to see whether these attitudes are influenced by particular factors (research objective 4) and to see how these attitudes compare across stakeholder types.

This section will present an overview of attitudes, what they are, how they are formed/influenced, how they are measured, and arguably, more importantly for this given study, how attitudes can impact upon actual behaviours. Indeed, it is this latter quest which distinguishes the use of the term 'attitudes' within the research aim and research questions of this thesis compared to the use of the term 'perception'.

2.4.1 What is an attitude?

Social psychology has long been associated with the concept of 'attitudes' with many early psychologists going as far as defining their field as the scientific study of attitudes (Watson, 1925; Thomas and Znaniecki, 1918). Ajzen and Fishbein (1980) identify Herbert Spencer as one of the earliest psychologists to employ the term attitude with Spencer stating:

Arriving at correct judgments on disputed questions, much depends on the attitude of mind we preserve while listening to, or taking part in, the controversy (Spencer, 1862 cited in Ajzen and Fishbein, 1980, p.13).

This definition is, arguably, a mentalistic view of attitudes, which in later years was supplanted with definitions which sought to link attitudes to social behaviour. In 1918, Thomas and Znaniecki were two of the earliest psychologists who viewed attitudes as mental processes which determined actual and potential responses of a given individual.

A plurality of definitions has since been presented to explain and describe the concept of an 'attitude'. Eagly and Chaiken (1993) assert that an attitude is:

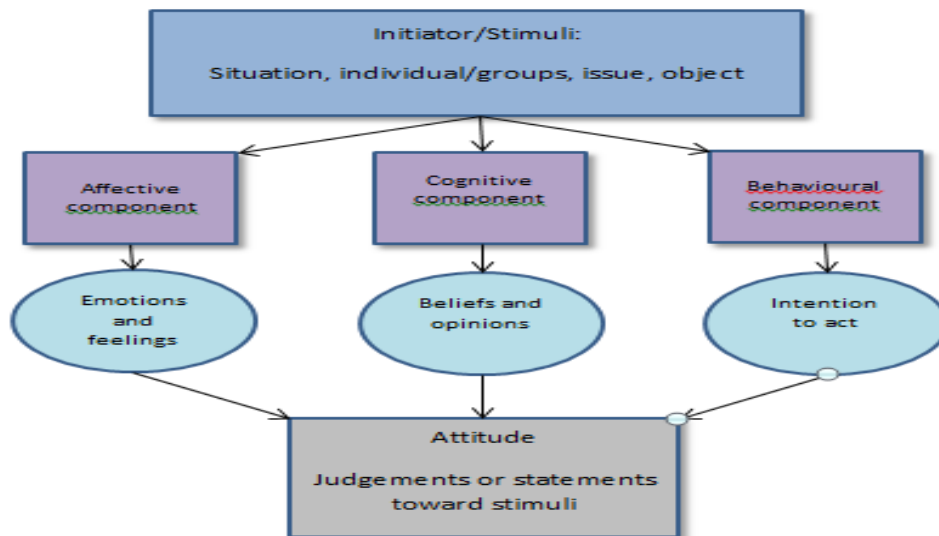
A psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour (1993, p.1).

Petty and Capioppo state that an attitude is, "A general and enduring positive or negative feeling about some person, object or issue" (1981, p.7) whilst Maio and Haddock (2010) summarise that an attitude refers, in simple terms, to how much we like or dislike something, arguing that our attitudes influence how we view the world, what we think and what we do. For the purpose of this research, attitudes of those directly involved with students training to be primary teachers are explored with consideration given to the positivity or negativity of these attitudes.

There are subtle differences in the definitions expressed by these different authors but all include the notion of an attitude as an expression of a value judgement about something, someone or an event. Attitudes can vary in valence – direction - individuals can hold positive, negative and neutral attitudes. Attitudes can also vary in terms of their strength and can be fluid in their nature and are not fixed (Maio and Haddock, 2010).

In defining attitudes, Smith and Mackie (2000) describe how value judgements are comprised of three important components – cognitive, affective and behavioural. This multi-component model has been adopted universally since the earlier writings of Cartwright (1949) and Smith (1947) and can be illustrated as shown in Figure 3.

Figure 3: Components of attitudes (adapted from Smith and Mackie, 2000)



For Breckler (1984) this tripartite model needs careful consideration as the component under investigation should be clearly identified. However, for Martin, Carlson and Buskist (2010), whilst different components of attitudes can be easily separated in texts, in reality the components are inextricably linked.

Cognitive aspect

The cognitive aspect of attitudes refers to the beliefs, thoughts and attributes that may be associated with an object. These beliefs are not always based on a neutral or balanced view. The opinions of third parties, such as family and significant others, as well as influences from wider society, can influence an individual's beliefs toward a given 'attitude object' (Maio and Haddock, 2010). Indeed, for Martin *et al* (2010) it is this imitation of attitudes, of significant others, which results in many children imitating opinions expressed by their parents long before the children know the underlying philosophy and values of attitudes expressed. In terms of this research,

the attitudes of those involved with students training to be teachers, with dyslexia, may be influenced by third parties such as Ofsted and media reports regarding standards.

Affective aspect

This refers to the feelings and emotions that an individual assigns to an object. Although it is possible to hold a belief without a particular emotion response, many beliefs do contain an emotional component. Politics and religion are key examples of attitude objects that can create strong emotional responses. The affective component of an attitude can be strong and pervasive. This aspect of attitudes is seen to be heavily influenced by the role of direct or vicarious classical conditioning (Martin *et al* 2010). Direct classical conditioning is relatively straightforward with emotions being linked to a given person or object due to past experiences. Positive or negative experiences will inform the overall valence of the attitude. This research will investigate whether attitudes displayed towards those with dyslexia training to be teachers have been informed by previous experiences of the participants.

Behavioural aspect

Smith and Mackie (2000) suggest that these two aspects of attitudes, the cognitive and affective components, impact on how we process information and ultimately an individual's behaviour linked to the attitude object. It is believed that the behaviour component is governed by past behaviour, experiences and engagement with a given object (Gross, 1992). Thus, attitudes are, in the words of Gross, "Predispositions to respond" (1992, p.515).

Understanding someone's attitudes towards a particular group of people (for example those labelled as having dyslexia training to be teachers) will not only tell us what that person feels and thinks about that group but also how they might act towards members of that group and whether those actions are likely to be empowering or oppressive for the people concerned, this links to research objective 3. However, as will be shown later, the expressed intention to behave according to an attitude does not guarantee that people will behave in a way that matches the attitude expressed.

2.4.2 Attitude functions

For proponents of attitude function theory, all attitudes serve a variety of purposes important to psychological functioning (Katz, 1960; Smith, Bruner, and White, 1956). A common framework for understanding the motivational underpinnings and functions of attitudes, is presented in Katz's (1960) typology of attitude functions (Julka and Marsh, 2000). For Katz, attitudes are instrumental constructs designed to serve individuals' physical, social, and emotional needs and can be categorised into four key types:

1. **Utilitarian (Adjustment):** This is where the attitude serves to maximise rewards/personal gains and to avoid/limit negative consequences and punishment. This function represents attitudes based on self-interest.

2. **Ego-defensive:** Where the attitude is motivated by the need to protect people from internal insecurities or external threats. Here defence mechanisms such as denial and repression are used in order to protect themselves from psychological harm.

3. **Value-expressive:** Where the attitude functions as a means of expressing or projecting strongly held personal values. Individuals motivated by this function may embrace the attitude object to achieve status, recognition, and visibility through membership and identification with important reference groups and to establish one's identity.

4. **Knowledge (object-appraisal):** Where the attitude is motivated by the need to gain and organise information in order to better understand, adapt, orient to the environment, and make it more predictable. People need to maintain an organised, meaningful, and stable view of the world. Attitudes achieve this goal by making things fit together and make sense.

These functions are neither mutually exclusive nor dichotomous but may exist on a continuum, and interact, providing the motivational basis of attitude expression (Katz, 1960).

2.4.3 The influence of exposure

A number of authors, including, Zajonc (1968) and Antonak and Harth (1994) assert that exposure to a stimulus can be sufficient to evoke a positive attitude response toward a person, place or event (the attitude object) even if no explicit interaction with it has taken place. Further studies undertaken by Moreland and Beach (1992) concluded that increased exposure to an object can often evoke more positive attitudes towards the object in question, this being the case even with disliked objects (Litvak, 1969). This is known as the 'contact hypothesis' (Baron and Byrne, 2003). Slevin (1995) concluded, from a study of nurses, that increased frequency of contact and familiarity with disabled patients resulted in more positive attitudes of the nurses towards these patients compared to nurses whom had little contact. McConkey and Truesdale-Kennedy (2000) further argue that the type of contact (personal or professional) is also important.

In relation to this study, exposure to individuals with dyslexia, may therefore, have significance regarding the attitudes held by stakeholders towards such individuals and serves to address research objective 4. It follows that determining whether participants in the study have engaged with or had experience of working with individuals with dyslexia is of importance in this study as exposure to such individuals may contribute to the attitudes demonstrated, be these negative or positive.

2.4.4 Habituation

Habituation (people getting used to a stimulus) is a key factor when considering exposure to given stimuli/objects (Martin *et al*, 2010). It is evident that exposure to new stimuli/objects can be threatening and may, initially, illicit a negative affective reaction. Habituation often takes place, following repeated exposure. The process of habituation results in the new stimuli being perceived as less threatening and reactions become more positive. The implication here is that increasing experiences and exposure of those with no experience of dyslexia may improve attitudes to dyslexia.

Donaldson (1980) found that contact with disabled people was deemed to be either 'structured' or 'unstructured'. Structured contact involved direct contact through talks and presentations or indirect contact through the use of video presentations by disabled people (Donaldson and Martinson, 1977), whilst unstructured contact was social contact or random interactions. Donaldson argued that studies involving structured contact consistently resulted in positive attitude change whilst the results from unstructured contact studies were equivocal.

Roper (1990) concluded that acting as a volunteer at a Special Olympics did not necessarily change attitudes towards disabled. The key factor within the contact situation appears to be the status of the disabled person. The disabled person must be seen as of equal status to the non-disabled person: equal relationships may be defined as those in which the disabled individual is of approximately the same age as the nondisabled person and/or is approximately equal in social, educational or vocational status (Donaldson, 1980).

A potential problem of unstructured contact, identified by Donaldson (1980) is the inherent disadvantages of possible exposure to persons who represent stereotypic images or those who are an inadvertent reinforcement of a previously held stereotype. Thus contact might be seen to reinforce images of helplessness, hopelessness and dependency rather than refute them. The emphasis on opportunities to interact runs somewhat counter to Donaldson's (1980) notion of the value of structured as opposed to unstructured contact. She argued that unstructured contact was not an effective technique for changing attitudes and yet interaction is more likely to take place within unstructured rather than structured contact. To these factors Yuker and Block (1979) have added co-operative rather than competitive interaction, the level of intimacy between disabled and non-disabled, the frequency of contact and societal and institutional support.

A further influential factor is, what Rothbart and John (1985, p.83) term, “indirect atmosphere effects”. These would include the attitudinal climates which can be seen in the support of authority figures and also in norms and laws, 'images promulgated by parents, peers and gatekeepers as well as expectations' (Rothbart and John 1985, p.84).

Ajzen and Fishbein (1977) locate attitudes within a conceptual framework of beliefs, attitudes, intentions and behaviours. Here Ajzen and Fishbein suggest that beliefs are the foundations on which everything is formed as they inform and determine attitudes, intentions and behaviour. In essence attitudes are formed by the attributes assigned to a given object/event and an individual's evaluation of these attributes. Within this framework the beliefs held by an individual will affect their attitudes, which will in turn affect behavioural intentions. To illustrate this point, an individual without dyslexia may see a trainee teacher with dyslexia as being 'brave' or 'bringing empathy to the profession' (Morgan and Rooney, 1997). These beliefs may lead the person to hold a positive attitude towards the person with dyslexia. In turn this positive attitude can lead to a set of intentions which are positive and which will result in certain behaviours such as being supportive of them during their time in school, seeking to aid their professional development.

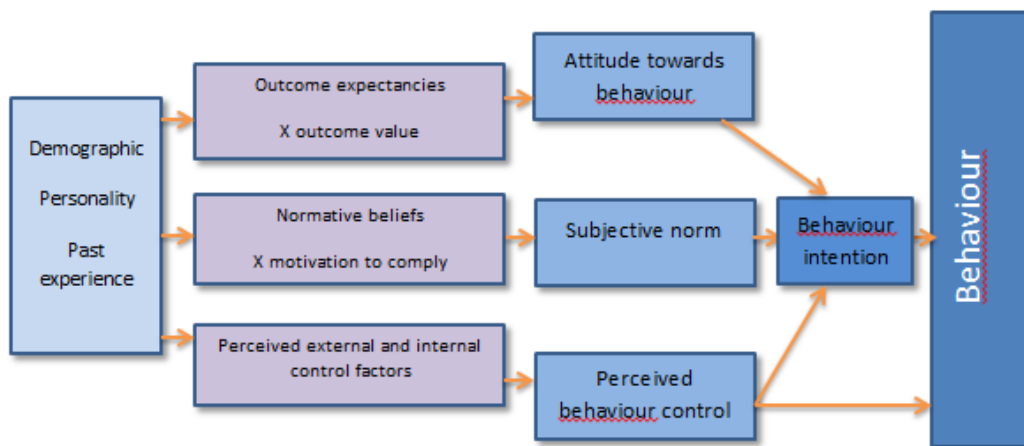
Behaviours can also be determined by the beliefs and definitions of disability (Altman, 1981). Thus, if the trainee teacher with dyslexia is perceived as being 'in need of help' they will be given help and, therefore, beliefs of the dependency, and the disempowerment of individuals with dyslexia will be reinforced. These 'positive' attitudes may also serve to reinforce the personal tragedy model of disability and so someone holding these attitudes might not accept the social model view of the need to change societal views of those with dyslexia.

2.4.5 The influence of attitudes on behaviour

Early research has considered the degree to which attitudes influenced behaviour. The Theory of Reasoned Action (TRA) is one of the most widely used theories for conceptualizing and operationalising the attitude-behaviour relationship (Ajzen and Fishbein, 1980). The TRA posits that attitude is a major determinant of a person's

intention to perform the behaviour in question. Essentially, the TRA suggests a systematic and largely linear process assuming a causal pathway linking beliefs to attitudes, attitudes to intentions, and intentions to behaviours. This can be shown visually as in Figure 4.

Figure 4: Schematic representation of the Theory of Reason Action (adapted from Ajzen and Fishbein, 1975).



This theory has its limitations. It assumes the individual has the resources to perform the behaviour; other variables that can impact on behavioural intentions are not considered (these may include factors such as mood, past experiences and fear); the linear progression of the decision-making process does not consider that it can change over a period of time; it focuses on the individual rather than a group or collective context and finally, time frames are not addressed for example, between intent and actual behavioural action (<http://sphweb.bumc.bu.edu>). LaPiere (1934) and Wicker (1969) also concluded that attitudes were a poor predictor of behaviour. In Wicker's (1969) review of 40 attitudinal and behaviour studies, a correlation of just 0.15 was found stating:

There is little evidence to support the postulated existence of stable, underlying attitudes within the individual which influence both his verbal expression and his actions (1969, p.75).

Could we then argue that if attitudes do not predict behaviour then the construct of attitudes is of limited value and use? To counteract such a criticism many psychologists have turned to investigating when and how attitudes predict behaviour. In recent years a more optimistic conclusion has been reached with researchers asserting that attitudes do predict behaviour, in some conditions better than others. The early studies, such as LaPiere and Wicker, were victims of further methodological flaws notably that of the low degree of correspondence between the behaviour measured and attitude measured. This is taken up by Ajzen and Fishbein (1977) who concluded that measures of attitude and behaviour need to correspond in four ways. These are namely: action, target, time and context.

2.4.6 Changing attitudes, the role of dissonance and compliance

Although attitudes can, to varying degrees influence behaviours exhibited, attitudes are not inflexible and are open to change and refinement. It is arguable, therefore, that the factors that influence attitude formation can also be used to instigate changes in attitudes. Classical learning theories such as classical conditioning, operant conditioning (Skinner, 1953) and observational learning can be employed to support attitudinal changes. For example, classical conditioning can be used to develop positive emotional reactions to an object, person or event by associating positive feelings with the target object. Operant conditioning can similarly be used to strengthen desirable attitudes whilst weakening undesirable ones. In the case of observational learning, individuals can also change their attitudes after observing the behaviour of others (Hobson, 2001).

Drawing upon the 'Elaboration Likelihood Theory of Attitude Change' (Petty and Cacioppo, 1984), two key ways of changing attitudes are presented. First, through persuasion, individuals can be motivated to listen and think about the message, thus leading to an attitude shift. Or, they might be influenced by characteristics of the speaker, leading to a temporary or surface shift in attitude. It has been shown that thought-provoking messages and ones that appeal to logic are more likely to lead to permanent changes in attitudes than ones which are illogical (Myers, 2012).

The dissonance theory of attitude change, developed by Festinger (1957) asserts that when there is a discrepancy between either our attitudes and behaviour or our attitudes and self-image, an uneasy feeling or state of dissonance occurs. In order to reduce this state of anxiety (dissonance), an individual can either reduce the importance of one of the dissonant elements, adding consonant elements or changing one of the dissonant elements thus resulting in a shift in attitude. Festinger's theory of dissonance and associated research further suggests that attitudes can be changed through acts of compliance. Here simply engaging in a behaviour, at someone else's request, may result in attitudinal change (Festinger and Carlsmith, 1959). In contrast, Bem (1972) proposes an alternative 'self-perception theory' in which draws on attribution theory and the notion that people decide on their own attitudes and feelings from watching themselves behave in various situations:

Individuals come to know their own attitudes, emotions and internal states by inferring them from observations of their own behaviour and circumstances in which they occur. When internal cues are weak, ambiguous, or uninterpretable, the individual is in the same position as the outside observer (Bem, 1972 cited in Martin *et al*, 2010, p.675).

Incentives to change attitudes include the source of the information, the content and the audience to whom the message is being delivered (Hovland, Janis and Kelley, 1953). When considering the source of a message, credibility and physical attractiveness have been shown to be two key determining factors in changing attitude (Chaiken, 1979). The source of the message must be seen as being both knowledgeable and trustworthy in the given area. Bochner and Insko (1966) tested this theory on participants and found that when information was given from highly credible sources, participants changed their behaviours and attitudes accordingly.

The contents of the message are also important where attitudinal changes are considered with McAlister, Perry, Killen, Slinkard and Maccoby (1980) demonstrating that balanced arguments better support changes in attitudes as opposed to one-sided arguments being presented only. Research findings concerning the degree to which scare mongering is more effective over more subtle messages is mixed with no conclusive evidence to support either claim (Martin *et al*, 2010).

A number of factors have been shown to impact on the degree to which people can be persuaded to change their attitudes. Research by Rhodes and Wood (1992) concluded that people with high self-esteem were less easily persuaded to change their attitudes towards a given stimulus compared to those with low self-esteem. Visser and Krosnick (1998) concluded that, in relation to age and sex, there were no significant factors in determining whether someone's attitude could be changed more easily. This knowledge may be of importance when the outcomes of this study are known.

2.4.7 The impact of behaviour on attitudes

The belief that attitudes influence the information we see and hear has a long standing research base (Allport, 1935). Festinger (1957) argues that individuals will seek out information to inform decisions and when these decisions are made, individuals are inclined, through cognitive dissonance, to seek selective information. In this way, information to confirm that the decision is correct is sought over information that may refute or impact negatively on the decision made. In this scenario the individual is paying selective attention to information which supports/reinforces their decision. The active seeking out of positive information is questioned by some researchers, Freedman and Sears (1965), for example, suggest that there is no evidence that individuals explicitly seek out congruent information. This also links with the notion that attitudes can influence how people interpret information. It emerges that two different people can interpret the same event witnessed/heard very differently. The argument here is that pre-existing attitudes are at play. This notion is supported by Houston and Fazio (1989).

Linking to research objective 4, this study will seek to examine whether stakeholder attitudes are influenced by past experiences of those with dyslexia and whether this past experience, positive or negative, serves to influence the overall attitude and the identification of strengths and/or weaknesses they see. Using a constructivist, grounded theory approach, Cameron and Nunkoosing (2012) explored HE lecturer experiences and attitudes of dyslexia. The results, gave a strong indicator that lecturer experiences of dyslexia was powerful in determining their levels of

awareness, how likely they were to afford support and provision. Lecturers who did not have previous experience were less likely to provide support. For Tinklin and Hall (1999) it is past experiences that are more influential than legislation or policy on someone's behaviours and attitudes towards a given subject.

Attitudes held by individuals not only can influence the processing of information but can influence the issues individuals wish to learn about (Blakenship and Wegener, 2008). Again, in the case of dyslexia, it could be argued that those with a negative view know very little about it, as a condition, or indeed the strategies that are used, by individuals with dyslexia, to overcome potential barriers to teaching. This ignorance and lack of knowledge serves then to reinforce potential misconceptions and prejudicial behaviours and attitudes.

2.4.8 Measures of attitude

To meet the research aim of this thesis, a measurement of attitudes is required. A key founder of attitude research was Allport (1935). Likert (1932) and Thurstone (1928) were both also highly influential as these researchers demonstrated that attitudes were quantifiable and thus could be measured. Explicit/direct indicators of attitude have, historically, been the most popular form of measurement amongst social psychologists (Krosnick, Judd and Wittenbrink, 2005). Typically, such direct measures consist of self-report questionnaires throughout which respondents answer direct questions about their opinions and beliefs. A full consideration of the measurement of attitudes, as employed in this study, will be presented in Chapter 3.

2.4.9 Attitudes towards disabled people

The research aim of this thesis is centred on attitudes towards students with dyslexia training to be primary teachers. Individuals with dyslexia have a formally diagnosed disability therefore it is important to examine research regarding attitudes towards disabled people, as a wider group of individuals within society. Early research undertaken by Yuker and Block (1979) suggested that a hierarchy of acceptability was evident with five proposed categories of disability. They concluded that the most acceptable, Category 1, consisted of people with partial and invisible disabilities, such as asthma or heart disease. Category II was partial but not

substantial conditions, for instance someone who was paralysed but mobile in a wheelchair. Category III was loss of a major sense, blind, deaf. Category IV was mental illness and the least acceptable, Category V was people who had brain and neurological damage. For this current research, attitudes towards individuals falling within Category I are being investigated thus suggesting that attitudes towards individuals with dyslexia should, in comparison to those within higher categories, be relatively positive.

Furnham and Pendred (1983) sought to investigate differences in attitudes towards different disabilities according to the visibility of the disability. Furnham and Pendred concluded that whilst mental disabilities were perceived significantly more negatively than the physically disabled people, the visibility of the disability did not yield significant differences in results. In a recent study by Staniland (2009), whilst few people reported openly negative attitudes towards disabled people, many respondents expressed views that suggest they see disabled people as less capable than non-disabled people. Furthermore, nearly four in ten people thought of disabled people as less productive than non-disabled people.

2.4.10 Effects of age, gender and social class on attitudes towards the disabled

The impact of variables such as age, gender, education and social economic status has been researched in relation to attitudes held towards disabled people. This is of importance when considering research objective 4 of this thesis. Recent research undertaken by Staniland (2009) investigated responses to a range of given scenarios and concluded that the impact of age on attitudes towards those with a disability was not consistent across the scenarios. For example, the youngest age group surveyed reported themselves as being the most comfortable in the scenarios attending school and being married to someone with a disability, whilst for the scenario where they had a disabled manager, they were least comfortable.

The youngest age group was also the least comfortable interacting with people with physical or sensory impairments in all scenarios (except marriage and school as stated above). The oldest age group was least comfortable, in most scenarios, interacting with people with learning disabilities or mental health conditions.

Earlier studies into the effect of gender on attitudes report unclear findings. Of the 129 studies reviewed by Yuker and Block (1986), 44% reported women as more positive than men, 5% reported men as more positive than women, and 51 % reported no statistically significant difference in the results. Similarly, Furnham and Pendred (1983) also found no significant difference in the attitudes of men and women to any of their four disability groups. Recent research undertaken by Staniland (2009) suggests that some whilst gender differences are evident, for almost all scenarios and impairments presented to respondents, women were more likely to say they were very comfortable than men, but the overall pattern of comfort by impairment and scenario is similar for both women and men.

As with gender, there is, in most scenarios, a positive relationship between educational level and the proportion of respondents saying they would be very comfortable with disabled people (Staniland, 2009).

2.4.11 Section summary - attitudes

As has been shown throughout this chapter, attitudes are complex and are influenced by a multiplicity of variables. Research has been presented which highlights how various demographic variables may be important in the responses given (for example age, gender and the level of education of participants). The level of experience and contact people have with those with learning disabilities has also been identified as important. Research in this area is fraught with various methodological difficulties, especially concerning differences in type of measurement, which makes comparisons across studies hard.

Whilst studies regarding attitudes towards disabled people, in general, abound in plenty, there remains an absence of research considering the attitudes of stakeholders to students towards with dyslexia entering the teaching profession. There is, as a result, no clear consensus of whether exposure to trainee teachers with dyslexia impacts on making attitudes more positive.

2.5 Conceptual framework

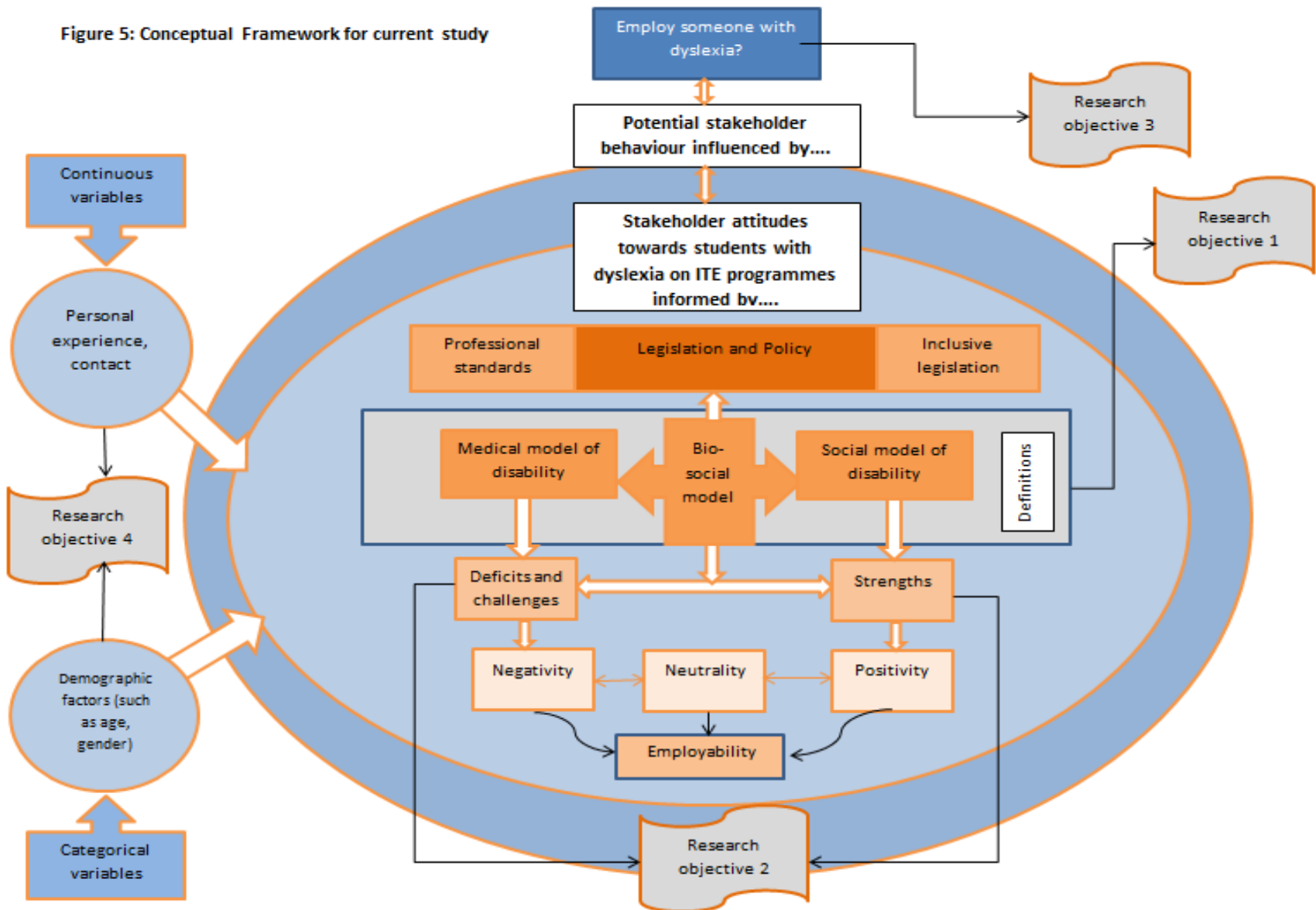
Throughout this chapter, key literature and theory relevant to the focus of this work based project (WBP) has been explored. To conceptualise the findings elicited from the literature and to provide a tool to support the enquiry, a conceptual framework was designed. For Miles and Huberman (1994) a conceptual is defined as:

A framework as a visual or written product, one that explains, either graphically or in narrative form, the main things to be studied—the key factors, concepts, or variables—and the presumed relationships among them. (1994, p.18)

This framework, as evidenced in Figure 5, on page 58, proved useful in supporting the development of initial, tentative theory in relation to the focus of the WPB, the research design and the subsequent questionnaire and interview questions. The framework shows that literature suggests a number of factors exist which impact upon attitudes held by stakeholders and that these attitudes can impact upon behaviour/actions displayed. In the case of this thesis, questioning through the questionnaires and interviews will aim to establish whether attitudes towards those with dyslexia, training to be teachers fall within a neutral to positive spectrum or within a neutral to negative spectrum. It is arguable that negative attitudes are linked to a view of dyslexia which is informed by the medical model of disability which is couched in deficits, difficulties and challenges (Herrington and Hunter-Carsch, 2001). In contrast, positive attitudes are associated with social models of disability, where strengths and benefits are more readily acknowledged (Shakespeare and Watson, 2002).

The conceptual framework shows that professional standards sit more within a medical model of disability, whereas inclusive legislation aligns itself with the social model of disability. This dichotomy can generate moral, ethical and legal tensions. The framework also illustrates that categorical variables such as demographic factors, such as age and gender (Yuker and Block, 1986; Staniland, 2009), and continuous variables, such as whether a person has had previous experience of knowing or working with someone with dyslexia (Tinklin and Hall, 1999; Cameron and Nunkoosing, 2012), can influence a person's attitude towards a given phenomenon.

Figure 5: Conceptual Framework for current study



Chapter 3 - A Consideration of methodology

This chapter serves to detail the approach to the study, justified through an articulation of the philosophical underpinning and associated methodologies; ethical considerations and the method of data analysis employed. Consideration of researcher reflexivity and the quality of data generated, through a discussion of bias, validity and reliability, is also prominent.

To reiterate, the overarching aim of this research is to,

Explore stakeholder attitudes towards students, with dyslexia, training to be primary classroom teachers.

This key aim was explored through a consideration of a number research objectives, namely:

- 1. To investigate understanding and awareness of dyslexia displayed by stakeholders involved in ITE.*
- 2. To identify strengths and challenges that stakeholder's believe ITE students with dyslexia bring to/face in the teaching profession.*
- 3. To establish whether stakeholders perceive there to be a difference in the employability prospects of an ITE student disclosing dyslexia, as a primary classroom teacher, compared to their non-dyslexic peers.*
- 4. To investigate whether attitudes expressed by stakeholders, towards someone with dyslexia training to be a primary classroom teacher, are influenced by given factors.*

3.1 Philosophical and epistemological perspectives

A researcher's implicit and explicit assumptions regarding the nature of reality, the truth, social world, and the ways to investigate it, influence the choice of research methodology employed (Crotty, 1998; Creswell, 2013; Punch, 2009). For Morgan and Smircich (1980) a set of three dimensional beliefs constitutes the main the guiding force in choices made by researchers. These three dimensional beliefs comprise: assumptions about ontology, epistemology and human nature.

Ontology can be defined as a particular view of reality held about the situation in question (Crotty, 1998). Essentially, this regards the form and nature of reality and what can be known about it (Punch, 2009). For Bryman (2008), one's ontological stance is rooted in one's belief as to whether the social world exists externally to people or whether it is a phenomena which is shaped and fashioned by social actors. Cohen and Manion *et al* (2001) develop this further asking:

Is social reality external to individuals – imposing itself on their consciousness from without – or is it the product of individual consciousness? Is reality of an objective nature, or the result of individual cognition? Is it a given 'out there' in the world, or is it created by one's own mind? (2001, p. 6).

A continuum of basic assumptions concerning ontology is presented by Morgan and Smircich (1980), who place reality as being the 'projection of human imagination' at one end, where reality is seen as being subjective and the result of one's imagination and reality as 'a concrete structure' at the opposing end, constituting, "a single, independently existing reality that can be assessed by researchers" (Greenbank, 2003, p.51). For Tebes (2005), this latter form of view of reality - 'realism' is described as "mind-independent truth" (2005, p.215) and is a view which perceives that *the truth* is 'out there'. In this view, the world predates humankind, it is an empirical entity, which exists beyond our cognitive efforts (Gill and Johnson, 1997).

Such polarised views are identified by Bryman (2008) who proposes the terms 'objectivism' and 'constructionism' as representations of the two extreme forms of ontological stance. For Bryman, questions surrounding social ontology are simply whether social entities can be seen as objective entities, which have a reality external to people, or whether social entities are social constructions, constructed from and through the actions, behaviour and perceptions of people, forever evolving as a result of this interaction. Within the constructionist view of reality and the truth, there is no *one truth* but many truths (Creswell, 2013). Similarly there is not one knowledge but knowledges (Braun and Clarke, 2013).

The continuum proposed by Morgan and Smircich (1980) does comprise less polarised views of reality. Morgan and Smircich (1980) highlight 'middle of the road views', one which perceives reality as a 'symbolic discourse' and one in which reality is seen as a 'contextual field of information' (1980, p. 494-495). For researchers for whom reality is a 'symbolic discourse' (ibid), the social world is comprised of symbolic relationships and meanings formulated through the process of both human interaction and action. In this view, reality is influenced by other actors in the field as well as through the individual (Cohen *et al*, 2007). For researchers aligning themselves more with reality as a 'contextual field of information' (Morgan and Smircich, 1980, p.495), the social world and reality is seen as ever changing based on the transmission of knowledge. In this view, individuals interact with their contexts through the exchange of information and this in turn shapes reality. As such, reality is not fixed but is fluid in its form and nature.

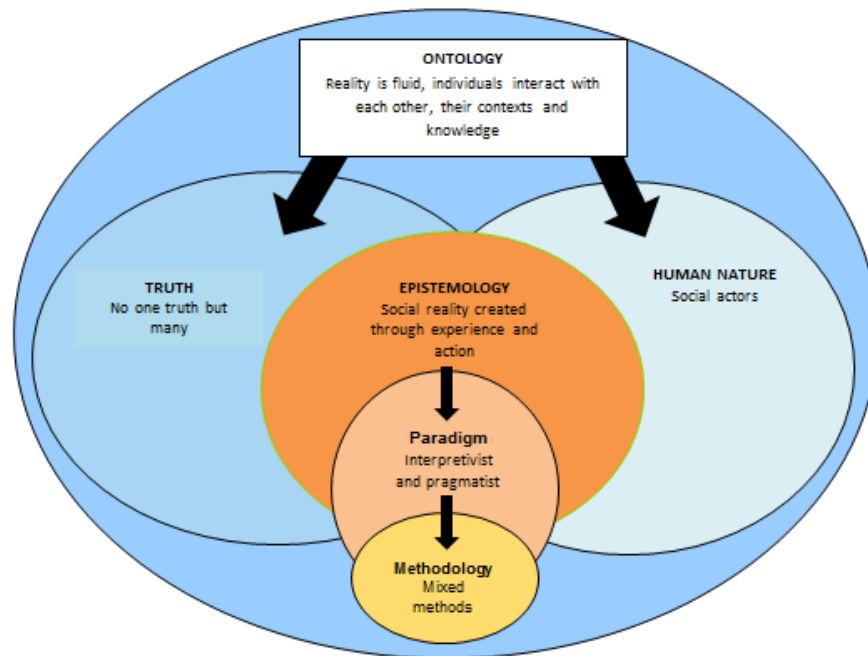
A social researcher's perception of the social world and the nature of reality influences the way that they believe knowledge is acquired and communicated. It follows that a compatible epistemology will be adopted by the researcher, to complement their ontology. Burrell and Morgan (1979) assert that epistemology rests on whether one holds the belief that knowledge is something that can be acquired or whether it is something which has to be personally experienced.

It is likely that a researcher whom possesses a view of reality which is highly objective, will adopt a positivist epistemology. Here the world, social and physical, is seen as a concrete structure which requires empirical and scientific analysis. Events, processes and phenomena, in the positivist epistemological approach, are only meaningful if they are observable and verifiable. In contrast, for those researchers for whom knowledge is personal and subjective, involvement with their subjects is a necessary part of the research process (Creswell, 2013).

Burrell and Morgan (1979) portray two images which emerge from the ontological and epistemological stances described previously. The positivist, scientific view of human nature sees human beings as responding to their environment mechanistically. In this view, humans and their experiences are products of their environment. Juxtaposed to this is the view that human beings possess a creative role in their environment. Rather than being controlled by their environment humans are the controllers/initiators of their actions. The ontological, epistemological and stance relating to human nature, taken by a researcher, influences the nature of the methods employed for a given piece of research. Figure 6 (p.63) shows the relationship of my own ontological view, informed by my beliefs and perception of truth and human nature, illuminating how this serves to inform my epistemology, the paradigm of the research and ultimately the methodology employed.

With regard to this study, and the researcher, reality is seen as a fluid phenomenon which is shaped through social interaction and behaviour, rather than a static entity or facts that exist 'out there' to be uncovered. Knowledge is constructed through the actions of the actors within this social world and this again is fluid in both its type and nature. Therefore, throughout this study, a constructionist view of reality and knowledge is applied.

Figure 6: Personal ontological influences on research



In terms of axiological assumptions, it is arguable that all researchers bring existing values to a given study. Indeed, having chosen a phenomena to research, in its own right, alludes to a value being placed on to the research focus- with the researcher deeming it to be worthy of investigation. In qualitative research the importance and existence of values are acknowledged. No claims of complete objectivity are made.

3.2 Qualitative or qualitative research?

Before the choice of methodology employed within this research is presented, an examination of the wider issue of research paradigms and the associated ongoing debate concerning the use of quantitative and qualitative methodologies, in the research of human behaviour, is needed (Bryman, 2008; Silverman, 1993).

For quantitative researchers, statistical analysis is, arguably, the bedrock of research, with qualitative research often perceived to be only suitable for the exploratory stages of a study (Silverman, 1993; Braun and Clarke, 2013). This is derived from the positivist belief that there is an objective truth existing in the world, which can be revealed through the use of scientific methods – essentially the measuring of variables and the relationship between these variables, in a systematic way. For positivists, the concern is to obtain reliable, valid and generalisable data which can be used to predict cause and effect relationships. Although, it is arguable that for Post-positivists, this strict cause and effect relationship has now been replaced by, “a probability that may or may not occur” (Creswell, 2013, p. 24).

Quantitative researchers often aggregate large numbers of people without communicating face to face with them (Janesick, 1994), the data enumerated as variable values and then statistically tested (LeCompte and Preissle, 1993). It is arguable that quantitative measures are succinct and can be easily aggregated to allow systematic analysis (Patton, 2002).

Qualitative techniques emerge from the interpretivist paradigm. Here the notion of an objective reality is dismissed. Qualitative researchers seek to understand human beings through an exploration of the meanings given to events and experiences by the participants. Kincheloe (1991) defines qualitative research as being concerned with experience as it is ‘lived’, ‘felt’ or ‘undergone’.

A defining characteristic of qualitative researchers is the interest they pursue in the identification of *meaning* (Merriam, 1988). Personal constructs, accounts and perceptions of individuals is central in the construction of knowledge (Creswell, 2013). Qualitative researchers seek to see participants and try to understand them in a holistic manner. Within the interpretivist paradigm human beings are seen as authors of reality that can think and learn, have an awareness of themselves and their past and possess motives and reasons (Neuman, 1994). As evident in Weber’s concept of *Verstehen*,

understanding something within context, people are not just objects to be analysed by reducing them to numbers. Instead, meaning should be sought through a consideration of the intentions and goals of people.

The mechanistic and reductionist view of reality and knowledge, adopted by positivists, excludes a consideration and recognition of the importance of choice, freedom and individuality and fails to recognise our ability to interpret our own experiences and to construct our own theories about the world (Cohen *et al*, 2001).

Anyone who is committed to science, or to rule-governed morality, is benighted, and needs to be rescued from his state of darkness (Warnock, 1970, p.134).

It is my belief that individuals conceive the same or similar situations differently, giving different accounts of 'the truth'. Ultimately, the way in which each individual interprets and makes sense of the social world has his/her own signature. Adopting a qualitative stance enables the researcher to enter the world of the researched, to achieve empathy and will provide an empirical basis to describe the perspectives and experiences of others with regard to the phenomena under investigation (Patton, 2002).

Qualitative researchers prefer to use their participants' words and use thick descriptions to present the results of their study (Bazeley, 2013). The term 'thick description' first coined by Geertz (1973) was developed further in 1989 by Denzin who added a constructivist perspective:

A thick description does more than record what a person is doing. It goes beyond mere fact and surface appearances. It presents detail, context, emotion and the webs of social relationships that joins persons to another....In thick descriptions the voices, feelings, actions and meanings of interacting individuals are heard (Denzin, 1989, p.89).

It is arguable that the term 'thick description' has now been popularised to broadly describe any reasonable detailed description leading Wolcott (2009) to raise the issue of how much description is needed for something to be classified as a thick description rather than shallow. Bazeley (2013) warns that researchers must be mindful of the difference between thick descriptions and those that are 'flowery' (Bazeley, 2013, p.377). Bazeley asserts that the term 'rich description' is better placed, as thick descriptions can, at times, become trivial and dull. Clearly, the use of rich description relies on the collection and recording of rich data.

Within the qualitative tradition of data collection, data is analysed as closely as possible to the form in which it was recorded or transcribed. In contrast to quantitative data, qualitative data can be lengthy and due to the variable nature of content can make analysis more difficult as responses lack standardisation (Patton, 2002). Theory is therefore generated differently by the different paradigms. For the positivist paradigm, theory is deduced via the testing of hypotheses, with scientists specifying the variables they are about to investigate before beginning their study.

An approach towards research where the underlying procedural logic is deductive rather than inductive is supported by Merton (1968). However, with this approach to the process of enquiry, the researcher's focus is restricted due to the emphasis on the refinement of an existing hypothesis through verification or falsification. Thus, theory is, arguably, generated from structures of existing knowledge. This argument is advanced further by Bottom (2000),

Fresh data that might make one want to think again about the framework underpinning the original formulation might not be very actively sought by the positivist researcher - and, even if discovered accidentally, might not be very carefully thought about (Bottom, 2000, p. 42).

In contrast, the qualitative researcher builds theory and, depending on the findings, may differentiate the original question and form it relative to the direction the study takes. This inductive procedure means that theory is built from data or is grounded in data (Glaser and Strauss, 1967; Newman and Brown, 1996). Here the experiences and meanings of participants drive the study forward rather than being limited by the researcher's existing knowledge in the field. For interpretivists, there is no one universal theory but instead multifaceted theories (Braun and Clarke, 2013). The two approaches differ in what is perceived to be the nature of knowledge.

It has been shown that there is a perceived polarity between qualitative and quantitative paradigms and their associated methodologies, where the former are considered to be soft, subjective and speculative, while the latter are described as hard, objective and rigorous (Punch, 2009). However, in reality, a number of researchers have shown that these approaches can often complement each other and that no method is superior, as each has its own strengths and weaknesses in relation to defined needs (Bell, 1993; Cohen *et al*, 2007; Bryman, 2008). Silverman (2013) similarly asserts that many research questions can be explored via the combination of methods and that the whole dichotomy of the quantitative versus qualitative debate is redundant. However this is contested by Denzin and Lincoln (2005) who state that positivist methods still have higher levels of status attached to them, in the research world, and that combining different methods, from the different paradigms, is flawed due to the inherent differences in their underlying philosophy.

Bryman (2008) suggests an alternative to this polarised view of epistemologies. For Bryman, a technical and pragmatist approach is needed as quantitative and qualitative methods can be appropriate to different types of research. Here Bryman asserts that methods from the two traditional paradigms are compatible and that the research issue itself should dictate the most appropriate tools to be used. Similarly, Hartman (1994) argues that research tools are not themselves positivist or interpretivist, it is how they

are used and how the data is interpreted that defines the epistemological assumptions upon which they are based.

It is for these reasons, alongside my belief that pragmatism, as neither quantitative nor qualitative research alone will provide adequate findings for this research, serves as justification for the employment of mixed methods (further discussion can be found on p. 69). However, although mixed methods are used, this research still falls within the interpretive paradigm as at the core of it lies an examination of views, beliefs and attitudes of individuals towards an aspect of disability therefore a qualitative dominant mixed approach was employed. The research seeks to be carried out *with* people rather than *on* people (Sharp, 2009). Data obtained is mainly verbal, being richer linguistically than positivist data, which is more reliant upon quantitative, statistical analysis (Braun and Clarke, 2013).

There are various types of inquiry that fall within the general 'interpretivist' approach to research. These are namely, hermeneutics, naturalistic enquiry symbolic interactionism, phenomenology and realism (Gray, 2014). Several of these examples can be discounted as being inapplicable to this WBP. For example, symbolic interactionism and its emphasis on entering the field and observing, at first hand, the actions and behaviours that are taking place, did not meet with the aim of this study.

Key principles of the hermeneutic tradition align with my own theoretical stance for this WBP. Indeed, Rennie (2000) asserts that the hermeneutic process applies to all qualitative research and analysis. The belief that reality is socially constructed and that interpretations are of importance, rather than just mere description, is centripetal to the hermeneutic tradition. In this research, whilst not publicised, I am aware of the prejudice, beliefs, prior knowledge and pre-understandings I bring to the research. With these in mind, it is necessary to acknowledge how our own culture, biases, personal histories and views impact on how we interpret the world.

3.3 Data collection – Methodological approaches

For Cohen *et al* (2001) 'methods' refer to techniques and procedures utilised to gather data, which provides the basis for inference and interpretation, explanation and prediction. The aim of methodology is:

To describe and analyse methods, throwing light on their limitations and resources, clarifying their presuppositions and consequences, relating their potentialities to the twilight zone at the frontiers of knowledge. It is to venture generalizations from the success of particular techniques, suggesting new applications and to unfold the specific bearings of logical and metaphysical principles on concrete problems, suggesting new formulations (Cohen *et al*, 2001, p.45).

The methodological approaches employed for this study have been informed by the work of Merton, Risk and Kendall (1956), Bryman (2008) and Hartman (1994), who assert that social scientists have abandoned the spurious choice between qualitative and quantitative data, favouring, instead to employ data gathering methods which make the best use of the most valuable features of each and which best suit the research aims. In deciding the most appropriate methodologies, a number of methodological approaches were dismissed.

The use of observations was deemed unfit for purpose. Schensul, Schensul, and LeCompte (1999) define participant observation as:

The process of learning through exposure to or involvement in the day-to-day or routine activities of participants in the researcher setting (1999, p.91).

This research does not make an attempt to link attitudes to actual daily behaviours or routines within a given setting and thus the method was inappropriate. Furthermore, when examining the five reasons, presented by Schensul, Schensul, and LeCompte (1999), to include observations as a research method, not one reason aligned to this given research.

As this research does not promote or test an intervention or programme of support, the use of action research is also inappropriate (McNiff and Whitehead, 2009). However, this research may, ultimately, give an indication of possible future action/strategies that could be taken and implemented to address attitudes displayed should there be a need to do so. This would afford an opportunity for this research to be extended further.

This research was born out of an absence of existing research into attitudes, of educational stakeholders, towards students with dyslexia training to become teaching professionals. As such, there exists no historical documentary evidence to which this research can be compared. This research method was also disregarded.

Some parallels could be drawn with ethnographic research. LeCompte and Preissle (1993) argue that ethnographical studies “represent the world view of participants” and “studies must be set in the participants natural settings” (1993, p.232). Whilst this study does seek to establish viewpoints, it is the latter characteristic which does not align fully with the aims of this research as there is no underlying need to study participants in their respective contexts. I did not immerse myself in a given social setting for a prolonged period of time nor did I aim to listen to or engage in conversations beyond the interviews conducted, as this would prove difficult in practice. In addition, observation is also a central characteristic of ethnographic research (Bryman, 2008). As previously stated, no observations of the participants were undertaken throughout this study as this data collection method did not align to the research aims.

3.3.1 Mixed methods

The use of mixed methods facilitates the inclusion of both qualitative and quantitative data collection methods and analysis to achieve a range of outcomes (Creswell, 2005). Distinct from pure qualitative or quantitative methodology, the use of mixed methods, as a distinct approach, has grown in popularity over recent years (Tashakkori and Teddie, 2003). Patton (2002) asserts that although designed to accomplish different goals, both research methodologies are complementary and can be combined effectively. Mixing the quantitative and qualitative data provides, “a better understanding of research problems than either approach alone” (Creswell and Plano-Clark, 2007, p.5). By conducting qualitative research, a researcher can illuminate underpinning reasons and rationale for responses, as well as create a more detailed portrait of the findings, whilst a quantitative design allows relationships between data sets and variables to be explored (Creswell, 2003).

In line with both Bryman (2008) and Hartman (1994), and given the nature of the research aim and subsequent research objectives that emerged, this research will utilise a mixed range of methods in order to best secure the most valid and reliable data with which to answer the research question. The use of mixed methods allowed for initial generation of mostly quantitative data, on a wider scale, followed by the generation of richer data in relation to key themes emerging. Through an exploitation of the strengths of different methods, this allowed a fuller understanding of human phenomena to be gained (Rocco, Bliss, Gallagher and Perez-Prado, 2003). Informed by Greene, Caracelli and Graham’s (1989) identification of five purposes for a mixed method approach, this research is categorised as developmental since it utilises the outcomes of one method to inform another.

The initial, quantitative method (an online questionnaire), referred to throughout as ‘Phase 1’ of the data collection, was used to inform ‘Phase 2’, a qualitative method (semi-structured interviews) through which rich data was obtained. Creswell and Plano-

Clark, (2007) call this a sequential two-phase approach. Within this mixed method approach the following data collection methods will be employed:

- Questionnaires with both closed and open questions
- Semi-structured interviews

These two data collection instruments, questionnaires and semi-structured interviews, were used effectively to answer the research questions posed with a variety of participants. They provided the opportunity to validate the research by triangulation (Punch, 2009). Gathering evidence from different sources enables cross-referencing of data and take into account views from different groups of respondents. It is important to check the validity of results from more than one perspective:

Cross checking the existence of certain phenomena and the veracity of certain accounts by gathering data from a number of informants and a number of sources (Blaxter, Hughes and Tight, 1996, p.54).

3.3.2 Questionnaires

Questionnaires can help to ensure that the issues of reliability and validity are addressed. Through careful wording and the piloting of questions the objectives of the research can be met. To ensure the validity, clarity and practicability of the questionnaire, it was piloted with a small group of people, with the instructions, questions, design, layout and order of the questions, amended as appropriate (Clough and Newton, 2007).

Questionnaires remain one of the most widely used and versatile research techniques (Blaxter *et al*, 2006). The questionnaire was used, in this study, as the main vehicle through which to elicit information for the principal research questions, from an identified group of people. Although questionnaires are associated with survey data, and thus the positivist tradition, the use of open and closed questions allowed discursive responses in order to produce richer data.

One of the key advantages of questionnaires is that they can be administered to a large number of people at the same time (Fraenkel and Wallen, 1993; Denscombe, 2003). This was achieved via the use of 'Lime Survey'. This allowed a large amount of data to be gathered at low cost and in a short period of time (Robson, 2002). The questionnaire administered for this research project was self-completed questionnaire. As I was not present, it was believed that this would help mitigate the impact of researcher presence thus reducing bias in the answers provided (Bryman, 2008). Furthermore, as this research investigates a sensitive issue, the use of a self-completed questionnaire allowed for greater levels of privacy (Braun and Clarke, 2013). However, due to the absence of the researcher, it was imperative that the questionnaire was easy to follow and the questions straightforward. Therefore, time was needed in piloting and drafting questions (see page 76 for further discussion of the questionnaire pilot).

The questionnaire compiled on 'Lime Survey' included a number of sections composed of both closed and open-ended items with the former forming the majority (see Appendix 3 for an example questionnaire). A Likert scale was centripetal to the online questionnaire. This was deemed necessary as, in order to meet the aim of the research, a measurement of attitudes was necessary. In a Likert scale, researchers create items that are worded to evoke a response on a spectrum such as strongly disagree to strongly agree. Each response along the continuum is allocated a score. In this way, attitudes are perceived as straight lines and so measurement allows the researcher to locate an individual somewhere on a linear continuum from highly positive, through neutral, to extremely negative. Although this might be a simplistic notion, it is a useful activity, to allow comparisons to be made against different groups.

The validity of data gathered via direct methods of attitude measurement is subject to a number of threats. First, there are issues with the actual use of scales to measure attitudes. Differences in item presentation can impact on responses. The use of five responses can often result in the middle value being selected. 'Respondent Sensitisation' is highlighted by McCaig (2003) as being a further threat. This is where a

transient attitude is created in the respondent, due to the statements/scale provided. However, the researcher interprets this as a meaningful and stable attitudinal response. A further major limitation is that some respondents can change their responses to present themselves in a more favourable light. For McCaig (2003), this is called 'Respondent Reactivity' and is particularly the case in relation to sensitive or contentious issues where a respondent may not wish to be perceived as being discriminatory or prejudicial. The knowledge of these issues and the knowledge that measures can be taken to reduce these threats (for example, confidentiality and anonymity) impacted upon the design of the scales used in this study.

When considering the measure of attitudes, the work of Oppenheim (1978) was carefully considered. Oppenheim stressed that we should not come to expect too much from attitude scales but should remember that their main purpose is to divide people into groups, to place them on a continuum in relative not absolute terms (McCaig, 2003). In this study, the attitude scales were used a starting point within Phase 1 of the data collection process, from which qualitative methods were employed to gain greater insights.

Whilst the use of closed question types such as those used on a Likert scale are easy to use, score and code for analysis, such questions can be limiting and may not allow the researcher access to information that was unanticipated (Fraenkel and Wallen, 1993). Standardised questions may also help alleviate bias but questions need to be clear so responses are not superficial. Where closed questions were used, for some questions, an option for alternative responses was provided. Open-ended questions encouraged direct quotations, allowing respondents to freely compose responses which they considered appropriate (Sommer and Sommer, 2002; Patton, 2002). A perceived advantage of this is that it affords the respondents an opportunity to make a truer assessment of what he or she really believes/thinks:

Direct quotations are a basic source of raw data in qualitative inquiry, revealing respondents' depth of emotion, the ways they have organised their words, their thoughts about what is happening, their experiences and their basic perceptions (Patton, 2002, p.21).

It still remains though that whilst questionnaires are good at providing descriptive information they do not always elicit deeper explanations and thus data can be 'thin' (Braun and Clarke, 2013). The researcher has to be mindful of the need to provide a suitable framework through which participants can respond in a way that represents their views, of the phenomena being studied, accurately and thus must strive to avoid entering the research field:

With preconceptions that prevent them from allowing those studied to 'tell it as they see it' (Denzin, 1988, p.21).

A further limitation of the use of questionnaires, linked to this point, is provided by Munn and Drever (1990) who assert that information gathered by using questionnaires can be superficial as there is no interviewer to interpret or explain the meaning of questions or to probe responses. This lack of flexibility is also seen as a cause for concern by Braun and Clarke (2013) who suggest that because questions are rigid they cannot be probed or extended in order to ensure understanding. Additionally, questionnaires, compared to other methods of data gathering, can have a relatively low return rate (Robson, 2002; Rose and Grosvenor, 2001; Sharp, 2009). Judd, Smith and Kidder (1991) suggest that the anonymous nature of many questionnaires can help to negate this low response rate compared to other methods where anonymity is not guaranteed. As such, complete anonymity was assured.

Using the checklist provided by De Vaus (1992) much consideration was given when designing the questionnaire. The layout of the questionnaire needed to allow for easy of navigation, primarily to avoid cognitive overload as well as ensuring that not too many questions were asked which may result in "respondent fatigue" (Bryman, 2008, p.219).

Dillman (2000) highlights the importance of using an attractive layout and warns against using strategies to make the questionnaire seem shorter than it actually is, such as reducing margin sizes and space between questions.

The use of Lime Survey served to mitigate the issues detailed above. The nature of the software allowed for questions to appear, on screen, one at a time. As a result of its binary structure, should questions generate particular responses, further questions were then raised/omitted as appropriate. This ensured that respondents did not answer questions that did not relate to the previous answer given thus ensuring that unnecessary data was not collected.

In developing the questions, leading or presumptive questions were avoided. This is important in order to ascertain participant's perspectives without them being influenced by the researcher. Owing to the inherent, sensitive nature of the study, this may also lead to issues of under or over reporting by participants therefore completeness and accuracy of responses may suffer, as stakeholders might ignore questions they do not wish to answer or tick the box that seems to be the 'right' or politically correct answer.

The questionnaire was piloted with a small number of participants from each sample group. The use of different people to sample the questionnaire, from the different sample groups, was deemed necessary as there were slightly different questions for each group. The pilot revealed that there were several issues with the first questionnaire administered. Such issues, which were addressed, included:

1. An overlap of age boundaries meaning respondents did not know which age group to select as their age fell into two.
2. Omission of HND/HNC as qualifications
3. In the section requiring participants to identify their relationship with people they knew with dyslexia, 'knowing a child in their class/school' was missing.

In summary, whilst there are a number of disadvantages associated with this research method, questionnaires still presented themselves to be the best tool through which to target a large sample, at low cost and through which to allow comparisons to be drawn.

3.3.3 Semi-structured interviews

In keeping with the constructivist epistemology of this study, it was believed that interviewing allowed for negotiated, co-constructed data (Fontana and Frey, 2000). As such, interviews were perceived to be a key tool for rich and thick data collection. It is evident, however, that there are many types of interview and careful consideration was needed as to which interview type would best serve the purpose of this research.

Kvale (1996) identifies a continuum of interview types which differ in terms of their openness of purpose, formality, degree of structure and the degree to which they are descriptive, interpretative, exploratory, emotion based or cognitive based. Cohen *et al* (2001) suggest that there are four main types of interview, namely structured, unstructured, non-directive and focussed interviews. Whilst the structured interview is organised in advance, with a schedule in place, thus giving the interviewer little freedom to modify questions, the unstructured interview has greater flexibility to its inherent openness. It is arguable that the more structured interviews are, the more likely they are to generate answers of a more standardised and quantitative nature. In contrast, unstructured interviews can allow the researcher to obtain unique and non-standard personalised views.

The use of semi-structured interviews allows for some digression, should issues arise during the interview process, but ultimately they provide a more coherent framework of questions that the interviewer can ask all participants in order to establish general views, commonality/trends towards certain phenomena, ideas or beliefs, to probe responses, challenge motives and feelings, therefore eliciting richer information than in a written response alone (Punch, 2009). Data collected therefore can be “taken as true, correct, complete and believable reports of their views and experiences” (Hakim, 1987,

p.27). Considering these factors, a semi-structured interview was chosen as the most appropriate type of interview. However, as with the use of questionnaires, there are advantages and disadvantages to the use of interviewing as a data collection method. For Kidder and Judd (1986) the major advantage is perceived as:

The ability of the interviewer to notice and correct the respondent's misunderstandings, to probe inadequate or vague responses, and to answer questions and allay concerns (all of which) are important in obtaining complete and meaningful data (1986, p.225).

Hakim (1987) asserts that the main weakness with interviews is that whilst examining a number of respondents in considerable depth may seem advantageous, the small numbers of participants cannot be representative of the total population from which they have been drawn.

This highly subjective technique may also lead to bias. Indeed, it is arguable that the very presence of the interviewer may influence the responses given by the participants. Bias of this nature may be reduced if only one researcher undertakes the interviewing ensuring that if any bias does occur, it is at least consistent. As a result, I held all of the interviews using, where possible, the same conditions and time constraints. Additionally, bias may arise through the non-verbal behaviour the interviewer displays indicating either approval or disapproval, agreement or disagreement, with the respondent (Ogier, 1989). This may lead to a situation where the interviewer's assumptions may be fulfilled.

In relation to the notion of the Hawthorne effect (Landsberger, 1958), in a semi-structured interview scenario, non-verbal behaviour may encourage the respondent to develop a theme of particular relevance to the interviewer's expectations, whilst ignoring other aspects which may not fit the interviewer's assumptions. Similarly, respondents might wish to present themselves in a favourable light and so say what s/he thinks the interviewer expects to hear.

In the case of this study, where power relationships between colleagues may be at play, the respondents may wish to impress their colleague with their knowledge or politically correct ideas and so give what they perceive to constitute the 'right' answer rather than their own views (Jones, 2001).

The interview schedule was devised following consideration of these issues alongside the key findings of the literature review. A rationale for inclusion of the different questions, within the interview schedule can be found in Appendix 4. This shows, clearly, how literature and findings from the questionnaires were used to inform the study. A pilot interview was completed with participants constituting each of the different sample groups. As with the questionnaires, this was necessary due to slight differences in questions asked. Changes were required to the interview based on the piloting of the questions. Such changes included:

1. Not asking the participants their age and other related demographic questions, at the outset. This question, in particular, was seen as an abrupt and rude start to the interview which made some pilot participants feel uncomfortable. These questions were removed and asked at the end of the interview when more of a rapport had been established.
2. Discussion about the participants own history of schooling was deemed to be unnecessary and thus removed.

An example of a final interview schedule can be found in Appendix 5.

All interviews were recorded. This allowed easier transcription and a reference point to which one could turn to reconsider evidence and clarify responses where necessary. During the pilot interview, and following the work of Richards (2009) a note-taking approach was first employed rather than a verbatim transcript being produced. However, the limitations of this were soon apparent with the notes made not sufficiently reflecting the actual discussion. This caused concerns about subsequent interpretation

and meanings derived from the note summary. It was felt that this method limited the richness and implicit meaning of the interactions. Oliver (2003) also warns against this method of transcription whilst Charmaz (2009) continues that verbatim transcriptions allow more opportunity to capture the essence of a discussion and is thus it is less likely for the precise meanings to be missed.

Owing to limitations of time, an orthographic approach to transcription was employed therefore how words were said and visual elements of the interview were not included. It is acknowledged that the transcripts are only a representation of the actual interviews that took place, as Braun and Clarke argue:

Rather than seeing a transcript as raw data, it can be seen as 'partially cooked' data, already prepared and slightly altered from its original stage. So far from being a neutral, simple rendition of words, a transcript is a selective arrangement produced for the purposes of analysis (2013, p.162).

Following transcription, all transcripts were emailed to the respective participants for checking. This ensured that the transcripts were an accurate representation of what was said and that any errors, which may have changed the meaning of an answer, or any misrepresentations were corrected or removed accordingly. This also provided a further opportunity to reiterate that participants could withdraw themselves and their data from the study.

3.3.4 Reliability and validity – Enhancement of the quality of conclusions

Miles and Huberman assert that all research should seek to establish “standards for the quality of conclusions” (1994, p.277). Lincoln and Guba (1985) reject traditional 'positivist' measures claiming them to be inappropriate for what they term naturalistic studies. Instead, a set of parallel facets of 'trustworthiness' is offered. These are namely confirmability, credibility, transferability and dependability. Yin, however, sees

quality as being achieved through a set of “logical tests” and cites the four common criteria of construct validity, internal validity, external validity and reliability (2009, p.40). Consideration of reliability and validity is essential when developing data collection methods. Centripetal to the notion of reliability is consistency, of which there are two main aspects – consistency over time and internal consistency (Punch, 2009). Consistency over time concerns itself with stability. Stability can be measured via the use of test-retest reliability. For example, if the same participants are given the same measuring instrument, under the same conditions and the same conclusions drawn, the measuring instrument is therefore deemed to be reliable. Essentially the correlation (measure of strength between two variables) should be high. There are concerns about the notion of stability in relation to the social world. Marshall and Rossman (1989) assert:

Positivist notions of reliability assume an underlying universe where inquiry could, quite logically, be replicated. This assumption of an unchanging social world is in direct contrast to the qualitative/interpretive assumption that the social world is always changing and the concept of replication is itself problematic (1989, p.147).

This claim implies that there are no stable properties in the social world and that studies cannot be replicated and to think that they could be is a misguided belief. Indeed, how a participant may answer during the first survey may then influence how they reply the following time. This would suggest a greater level of consistency than there actually is. Additionally, life events and changes in society may impact on the degree of consistency thus making tests of stability difficult to secure in practical terms throughout research (Bryman, 2008).

Internal consistency is achieved when different survey items, intended to measure the same characteristic, do so. The use of the split halves method is commonly used to test the reliability of survey items. The idea is to split the survey items, typically questions, related to the same construct to be measured. Once the questions have been split, the

results from the two subsets of questions are then compared. This constitutes the correlation coefficient. The closer the two sets of results are, the greater the level of internal consistency of the survey instrument (Punch, 2009). For Bryman (2008) a coefficient measure of at least 0.80 represents a good level of internal consistency.

The issue of validity is the second central aspect of quality measurement.

Validity has to do with whether your methods, approaches and techniques actually relate to, or measure, the issues you are exploring (Blaxter *et al*, 1996, p. 200).

There are a number of potential threats to the validity of a given piece of research. Construct validity, presents the first threat. This is where the establishment of a correct operational set of measures for the concepts being studied is needed (Kidder and Judd, 1986). Construct validity can be increased in several ways, through the use of multiple sources of evidence or triangulation, encourage convergent lines of inquiry, providing a chain of evidence and having the participants review the findings (Yin, 2009).

In relation to this research, construct validity was achieved by the implementation of a number of procedures. First, multiple sources of evidence were drawn upon – established via an appropriate sampling framework. Questionnaires and interviews were then completed by a variety of stakeholders. This use of multiple sources, to improve construct validity, is advocated by both Cohen *et al* (2007) and Yin (2009). Second, a chain of evidence was established. This chain of evidence is evident from the research questions posed through to the conclusions drawn from the findings. Finally, participants (lecturers from within the ITE team, Headteachers and the students themselves) were asked to review the final report (Yin, 2009; Cohen *et al*, 2007). Internal validity is an issue if the research undertaken is attempting to conclude a causal relationship. As this study does not aim to seek causal relationships the notion of internal validity will not be discussed further.

External validity, relates to the generalisation of findings, the extent to which the conclusions drawn could be applied to other people, in other settings/contexts, at different times (Cohen *et al*, 2007). It follows then that the potential threats to external validity include the sample used, the context and the timing of the research. To improve external validity it is important to ensure that the sample is an accurate representation of the given population, that a range of contexts are used and that the research is conducted at different times. Schofield (1990) refers to this as generalisability in the form of transferability to other applicable situations.

3.3.5 Triangulation

Triangulation can be useful to help counter the threats to validity. As Yin (2003) states, “Converging lines of enquiry yields more convincing and accurate findings or conclusions” (2003, p.98). The use of triangulation helps to alleviate the existence of researcher bias or distortions which may occur due to the researcher’s perception of reality, due to using one method only.

Denzin (1988) distinguishes four types of triangulation. These are namely:

- Data triangulation e.g. interviews, surveys, documentational analysis
- Observer triangulation – using more than one observer in the study
- Methodological – combining qualitative and quantitative approaches
- Theory – using multiple perspectives

The process of triangulation is one which can enable a full and balanced study to be conducted. In this research data triangulation was used, for example, questionnaires and interviews. As more than one method of data collection was used, this enhanced the rigour of the research. It must be recognised that triangulation may open up potential discrepancies and contradictory evidence. Bloor (1997) continues, this argument stating that whilst triangulation is relevant to validity, it can raise logical and

practical difficulties, for example, when findings collected by different methods differ to such a degree that they make comparisons doubtful.

The research instruments adopted will provide reliable and valid data. To ensure reliability all participants will be given copies of the same questionnaire. Those involved in the interviews will do so with the same interviewer. The implementation of such systems and controls will strive to ensure maximum reliability of data gathered. The questionnaires and interviews conducted with the students, school partners, tutors and parents will seek to establish their own perceptions and attitudes towards ITE students with dyslexia. Subsequently the findings should remain focused and relevant to the area of enquiry.

3.4 Ethical considerations

Bassey talks of the importance of respect for “democracy, the truth and the person” (1999, p.28). It is essential that the researcher remains aware of their ethical obligations, not only towards those who are participating in the research, but also towards the truth. The researcher must make clear the motives for the research and explain how the research will be carried out. Respect for the privacy and rights of the participants must be assured with an explanation as to how confidentiality and anonymity will be achieved. Burton, Brundrett and Jones (2008) refer to the importance of behaving in an ethical manner and how this serves to maintain positive relationships between the researcher and the participants. Should the trustworthiness of the researcher come into question then the research itself becomes unreliable and invalid.

For Blaxter *et al* (2006), ethical issues are particularly challenging when undertaking research of a qualitative nature. For these theorists, the closeness of the relationships formed, between the researcher and the researched, as a result of the type of data collection methods employed, can give rise to ethical issues. As this research uses a

qualitative method of data collection, a number of sources were consulted in order to ensure that the research was conducted in an ethical manner. This research will, therefore, adhere to the 'Research Code of Ethics' (University of Derby, 2002) and BERAs (2011) 'Revised Ethical Guidelines for Educational Research' the guiding principles of which adhere to non-maleficence and beneficence. Indeed, as Silverman (1993) observes, qualitative researchers are guests in the private spaces of the social world, as such the researcher's code of ethics should be strict and rigorous. Such codes of ethical practice are a valuable starting point but, as asserted by Flick (2009), such guidelines cannot possibly address all the potential issues of research thus, in this study, an element of personal judgement was also needed. Tooth, Lutfiyya and Sokal (2007) declare that:

The principle of beneficence imposes a duty to benefit others and, in research ethics, a duty to maximise net benefits (2007, p. 4).

Therefore it is important to consider how this research may produce benefits for the groups involved, through the identification of possible improvements. For the participants involved in the research process, this research provides an opportunity to reflect on their own beliefs and attitudes towards trainee teachers with a specific learning support need/disability. It presents them with an opportunity to consider the positive skills and attributes that a trainee teacher with dyslexia may bring to the profession. Participation also affords a level of personal satisfaction by contributing to an interesting and potentially controversial topic within the profession.

For other stakeholders, the outcomes of this research may aid individuals in thinking critically about their own beliefs and attitudes towards marginalised groups within society. The needs of ITE students with dyslexia can be disseminated and a greater awareness of the positive range of skills and attributes that they can bring to the classroom, highlighted. If negative attitudes are displayed, consideration can then be given as to how these attitudes might be mitigated.

3.4.1 Harm

Harm can entail a number of different facets. For Bryman (2008), these facets include, physical harm, stress, harm to an individual's development and the incitement to perform reprehensible acts or legal jeopardy (Neuman, 2006). Physical harm, is an ethical principle requiring researchers to take responsibility for not causing bodily harm to their participants, thus requiring a risk assessment of the environment in which the research is to take place as well as the screening of participants to ensure that no existing health conditions exist that may cause harm (Neuman, 2006). In this study, the researcher believed that there were no risks to participants in terms of physical harm, in terms of the environment used to conduct the research or the physical wellbeing of a participant. Whilst it can be asserted that no physical harm was caused to the participants in this study, it would be naïve and claim that this study did not, potentially and unintentionally, bring about any psychological risks. Psychological harm, inducing stress, anxiety and potential loss of self- esteem is a key consideration for researchers. Over the decades there have been numerous studies that have caused harm in this way to participants (for example, the Milgram obedience study – Milgram, 1963).

As a sensitive researcher, it is believed that the questions administered through both the questionnaire and interviews did not, overtly, put participants under any great levels of stress – as evidenced by no issues being raised by the participants themselves. In order to minimise this risk, the questions and context for the interviews were carefully planned and piloted. Participants were asked for feedback regarding the nature of the questions and whilst no feedback was given to suggest any level of harm, the researcher cannot be certain, in all instances, when researching a contentious issue, that participants may be affected in some way. As a precaution, signposting was given to all participants, in the interviews, of support available, should the issues raised throughout the process develop any levels of concern or anxiety.

It is recognised that it is possible, that having completed the questionnaire and/or responded to the interview data, the participant's beliefs and attitudes may be challenged, something that could lead to cognitive dissonance (Festinger, 1956) –see Chapter 2. This could be regarded, by some, as a form of psychological harm. Furthermore, the findings of the research may prove to incite some levels of anxiety should the findings show that a negative attitude is held regarding ITE trainees with dyslexia:

The need to strike a balance between society's desire, on the one hand, to expose the hidden processes at work in modern society and, on the other, to protect the privacy of the individuals and groups and to recognise that there are private spheres into which the social scientist may not, and perhaps should not, penetrate (Barnes, 1979 in Bulmer, 2001, p.49).

In relation to legal harm, and the risk of participants being arrested, this study serves to investigate attitudes rather than behaviour. Attitudes in themselves are not illegal and as such the researcher believes that legal harm is not a key concern in this study. Assurances of anonymity and confidentiality also served to preserve the participant's social standing and reputation (Neuman, 2006).

The questionnaire included opportunities for open ended responses and the semi-structured nature of the interviews allowed participants to have an opportunity to say what they wanted to, in the way they chose to. In doing so they were able to maintain their dignity and respect. Throughout the duration of the study, the researcher was mindful to be explicit, at all times, about the nature of the study.

When writing the covering letter/information sheet, guidance was sought from ethical bodies (such as the SRA 2003), academic institutions and academic literature (Neuman, 2006; Bryman, 2008) to ensure that ethical procedures were being followed. To this end, the need to be transparent and clear emerged as being of grave importance and thus emerged the need to include specific content (see Appendix 6).

This knowledge of content, was then used as a basis for the information sheet of the project which was distributed to all participants (see Appendix 7).

In order to further mitigate the potential for harm to be caused, an ethical framework was adopted, using the sources detailed previously (the 'Research Code of Ethics' (University of Derby, 2002) and BERAs (2011) 'Revised Ethical Guidelines for Educational Research') alongside wider reading. The completed ethics proposal can be viewed in Appendix 8.

Particular care and thought is needed when approaching individuals to take part in, what some may consider as, contentious research, which may have high levels of personal significance. The nature of the research issues, combined with the chosen data collection methods, required careful thought. Despite Douglas's (1976) claim that ethical codes and guidelines create a recipe of good practice which can actually stifle research (1976 in Henn, Weinstein and Foard, 2006) it is my belief that key ethical principles are needed to safeguard participants and as such a discussion of the guiding ethical principles, which underlie this research, now follows.

3.4.2 Informed consent

Informed consent is defined by Diener and Crandall as:

The procedures in which individuals choose whether to participate in an investigation after being informed of facts that would be likely to influence their decisions (1978, cited in Cohen *et al*, 2001, p.51).

Neuman (2006) similarly believes that informed consent should not be seen as merely getting an individual's permission but that those concerned need to have an explicit understanding of what they are being asked to participate in. Imbued within this definition are four elements – competence, voluntarism, full information and comprehension. All four elements were adhered to throughout this research.

Kimmel (1988) asserts that to remain ethical no research should seek to involve people without their consent and should not coerce people into participating. This evolves from the participant's right to freedom and self-determination (Cohen *et al*, 2001). All respondents and participants did so of their own free will and interest in the nature of the study. The researchers' professional position was not used in any discriminatory or coercive manner to engage participants. Those that agreed to form part of the interview sample were asked to sign a consent form (Appendix 9).

The issue of informed consent was important to this study. In each case, the researcher contacted the participant involved setting out the purpose of the research. At each interview, the researcher reiterated the purpose of the research; the format that the interview would take – asking a list of structured questions but also using unplanned, subsidiary questions to follow up any interesting lines of enquiry and to gain informed consent to record the interview. The researcher also confirmed that the interviewees' personal identities would remain anonymous and the use of names/professional titles that may allow them to become recognised would be avoided. Following transcription of the interviews, each participant was given a unique identification number in place of any details supplied regarding their name etc. Further issues relating to confidentiality will be explored later.

The principle of informed consent is open to wide interpretation. It is questioned for instance, by Robson (2002) how fully a respondent should be informed. What opportunity should be given to, the researcher, to withhold consent? Robson (2002) continues to question how practical and realistic it is to ask, in advance, whether people are prepared to take part in a research. According to Robson, it may not be possible or practicable to do this. He notes:

You may have good grounds for believing that telling them would alter the behaviour you are interested in but by not telling them would mean that the you have taken away their right not to participate (2002, p.68).

For the purpose of this research, informed consent was seen as being important and thus was gained via a number of means. For the first phase of the research process, the administration of the questionnaires, the use of a formal consent form and reply slip was deemed as inappropriate, as the completion of a questionnaire was deemed as consent in its own right. Indeed, if people did not wish to be involved in the research, then it follows that they would not fill out the questionnaire. This practice is highly criticised by Cocks (2006) who regards this as 'implicit' consent only. Given the typically low response rate of questionnaires (Neuman, 2006), the addition of further documentation and reply slips could serve to reduce the response rate further. However, all questionnaires did contain basic information regarding key ethical considerations, an overview of the research, and my contact details were provided, should participants wish to discuss issues in more detail (see Appendix 10).

Following from Neuman (2006) and Denscombe (2010) who argue that an 'explicit act' is needed to declare consent, written consent was sought for the second phase of the research process, the interviews. For those attending the interview stage of the research process, the information sheet (as already shown in Appendix 7) and a consent form, which required a signature to confirm that they had read the details provided and were willing to participate, were administered (see Appendix 9). Following Richie and Lewis (2003), the decision was made not to include a number of more specific details relating to the study. These included issues such as the sampling technique used to generate the sample, how the data would be stored, and any notion of possible harm or discomfort that may be experienced due to involvement in the research process. The decision to omit this information was informed by a belief that some of this detail may impact on the nature and quality of responses given and that having too much detail on the consent form may cause cognitive overload thus discouraging the participants from taking part (Cohen *et al*, 2007). As Punch (1994) states:

In much fieldwork there seems no way around the predicament that informed consent-divulging one's identity and research purpose to all and sundry – will kill many a project stone dead (Punch, 1994, cited in Denzin and Lincoln, 2000, p.139).

Furthermore, Neuman (2006) points to a study conducted by Singer (1978) which concluded that no significant differences were found in consent levels between groups which had been given detailed statements compared to little/no information regarding a given study.

In addition to initial consent being obtained, it has long been established that it is important to ensure that consent is maintained and thus is embedded throughout the research process (Berg, Appelbaum, Lidz and Parker 2001). For Wendler and Rackoff (2007) continuous consent has four typologies:

Re-consent, in which “significant” changes to research are presented and documented by an impartial witness; on-going consent, in which minor changes to research are presented; reaffirmation, in which researchers periodically invite reflection on research participation; and dissent, in which voluntarily withdraw from research occurs (2007, p.4).

Arguably, consent should not be perceived to be something which is gained as a ‘one-off’ event. To this end, consent was gained at various stages of the research process (see Appendix 11 for a timetable of consent). The use of continued consent, served to build trusting relationships with the participants.

3.4.3 The right to withdraw

The unconditional or absolute 'right' of participants to withdraw at any time and without giving any reason, is advocated by many ethics committees. Indeed, this is a principle which was adhered to throughout the duration of this research. Verbal reminders were given throughout the different stages of the data collection process, for example, the interview schedules designed, built in time to remind participants of their right to withdraw and in written format, the covering letter sent out at each stage of the research

process, also highlighted this right (Breen, 2006). This principle is not without its proponents. Edwards (1997), writing from a medical perspective is cautious of this approach, stating that once consent has been given participants should not necessarily have unconditional or absolute rights to withdraw. Whilst Edwards does not go as far to say that there should be a complete absence of rights, she believes that this has led to a situation whereby researchers, in effect, 'screen out' people they think may be unreliable, to protect outcomes of their research.

The decision, of a participant to withdraw, from any research, is disappointing for any researcher but it is my belief, in contrast to Edwards (1997), that participants should maintain this right. As Oliver (2003) claims, good research is only viable where there is mutual respect. When participants decided to exercise their right to withdraw, no coercion took place in an attempt to maintain their participation. Reasons behind the withdrawal were sought, in order to make adjustments, when and where appropriate to the research process, in attempt to prevent further withdrawals, of other participants and in the spirit of openness.

3.4.4 Confidentiality

The privacy of participants is a central concern to the ethics of research. It is arguable that privacy can be maintained in two key ways – the assurance of confidentiality and anonymity.

Turning first to confidentiality, confidentiality concerns itself with the avoidance of the attribution of comments to particular individuals, within a given text. This means that even though the researcher him/herself may be able to identify data given by particular participants, the connection is not made publically - instead data is presented in an aggregate form only. In this research, assurances were given that all comments made/used by participants would remain anonymous. Kimmel (1988) found that if assurances of confidentiality are weak, then participants are less willing to give consent to participation, in studies that are of a sensitive nature. As this research falls within this

category, it was deemed of great importance to give clear and strong assurances of confidentiality throughout the different stages of data collection. This concept of confidentiality is developed further by Richie and Lewis (2003) who state that researchers must seek to avoid *direct* and *indirect* attribution. For these researchers, direct attribution concerns making direct links to an individual or setting/location. Indirect attribution on the other hand is when a researcher makes reference to particular characteristics which may result in either the participant or setting being identified. In this research, details were changed, where appropriate, in order to reduce the effects of direct and indirect attribution. Furthermore, and in line with guidance provided by the University of Dundee (2009) it was important not to collect irrelevant and unnecessary data as such only data that was deemed relevant, to meet the needs of the study aims, was collected and recorded.

Maintaining confidentiality is not without its challenges, particularly when illegal activities are researched. Neuman (2006) gives examples of where researchers themselves pay high personal costs for maintaining confidentiality, facing imprisonment or personal harm from individuals and/or organisations seeking to establish the identity of participants. This research may highlight differences between law and policy and practice in terms of employability of those with dyslexia and as such participants will need greater reassurance that their contributions will not be linked to them as individuals. However, all participants were informed that the data and information shared did not fall outside of the remit of legal privilege (Henn, Weinstein and Foard, 2006).

As I work for a large academic institution, I had to be mindful of the notion of 'commercial confidentiality' as identified by Le Voi (2002). The research undertaken has not been funded by the affiliated university although members of the sample were drawn from the organisation and associated partners. To this end, the awareness of the need to disguise the identity of the participants, to ensure confidentiality, was ever more

present. In order to secure confidentiality third parties (for example, the transcriber of the interviews) were asked to sign a confidentiality statement – see Appendix 12).

3.4.5 Anonymity

The underlying principle of anonymity is the notion that the identity of any participant is, in no way, revealed (Silverman, 2010). Anonymity exists when neither the researcher nor any other person can identify participants from the information provided. Therefore, on questionnaires, no identifying marks are made – no names, addresses or coding symbols. Complete anonymity was guaranteed for those who desired it. However, as the researcher wished to undertake interviews, following the initial questionnaires, respondents of the questionnaires were given the opportunity to include their name/contact details should they wish to be considered for the interview stage of the research process (a random sampling strategy was then employed when determining the interview sample).

In this second phase of data collection, the face-to-face interviews could not assure anonymity. However, confidentiality was guaranteed at both stages.

3.4.6 Data protection

In order to comply with the Data Protection Act (1998) and BERAs (2011) recommendations, all materials connected to the research in electronic, audio or paper form, could be accessed only by the researcher and transcriber and were stored safely; with no public accessibility. As already discussed, the transcriber was asked to sign a letter saying that they would conform to the Data Protection Act (1998) - see Appendix 12.

All copies of electronic data were kept on a password protected memory stick, which when not in use was kept in a locked draw. Any paper based data was stored in a lockable filing cabinet, in an unmarked folder. Participants were informed that on completion of the thesis, all documentary evidence would be destroyed via shredding.

Due to the sensitive and potentially contentious nature of the responses given, it is for this reason that the transcripts of the interviews do not appear as an appendix in this study (Silverman, 2010). Doing so may allow the individual participants to be recognised and thus break the statement of confidentiality.

The analysis of data also requires ethical consideration. As such, the data analysis was conducted in such a way to avoid misrepresentation or fraudulent analysis (Silverman, 2010). The data has been utilised to represent what was recorded. The findings are reported accurately and no intentional false statements made (Lichtman, 2010).

3.4.7 Deception

Bibby (1993) asserts that deception is “an attack on the autonomy, dignity and integrity of participants (1993, p.3). However, as Cohen *et al* (2001) argue, there are many research foci that cannot be investigated without some level of deception. What remains important is to question whether the gains made, from the results, in the pursuit of the generation of new knowledge, are justified by with the level of deception used, whilst considering the potential harm to the participants which may result from the deception. Indeed, Cohen *et al* (2001) go as far as to argue that:

Most subjects accept without resentment the fact of having been duped once they understand the necessity for it (2001, p.64).

However, it was my belief that openness regarding the aims of the study was necessary. To lie to participants would endanger the status of social researchers and the trust between researchers and participants (Bryman, 2008). The issue of deception was addressed with all participants, in a clear fashion, with a statement about the research aims being read prior to any interview being undertaken (see Appendix 7). In relation to the questionnaires, a short summary, was also provided (see Appendix 10). As such, it can be argued that the participants, in this research were clearly informed of its aims, purpose and intentions and were not deceived. In summary, in order to

minimise the risk of deception, the following key information was shared with the participants:

- Clear aims, purpose and intentions of the study being detailed
- Summaries of key findings presented, after the questionnaire stage to those continuing into the interview stage.
- The required time needed to complete the interviews was shared with the participants (the pilot studies allowed accurate timings to be obtained).

3.5 The role of the researcher

The role of the researcher and the impact on those being studied has been a recognised and important issue in research since the Hawthorne studies (Franke and Kaul, 1978). The researcher, as an active member within the context in which the research is taking place, can, inevitably, have an impact on the behaviour of those involved in the study. Issues of power and status may also be at play. As the researcher, it was important for me to appreciate how interaction with, and the perception of participants, can affect the answers given in interview situations. It was also important to recognise how to manage feelings which may arise from the participants, feelings such as curiosity, concern and anger.

There are further potential difficulties in conducting research within the organisation within which I work. Drake and Heath (2010) calls such a researcher an insider researcher practitioner. Whilst this has its advantages, such as ease of access to participants, the researcher then has to maintain relationships despite the potential consequences and findings of the given research. This I believe is a crucial concern particularly when researching a sensitive issue, where participants are required to be truthful about attitudes which link to moral, ethical and legal obligations. I perceived that further tensions could arise due to me 'knowing' what colleagues thought about particular issues, especially when these are not in line with the 'official' stance taken by the setting in which we work or indeed legislation.

Drake and Heath (2010) continue to stress that due to the usual small scale nature of insider research maintaining anonymity can also present a challenge however this was mitigated through strict adherence to the ethical guidelines discussed previously. Platt (1981) highlights further potential challenges in terms of maintaining a neutral persona when researching in the workplace. Drake (2010) goes as far as to say that maintaining a neutrality is impossible but that despite this potential lack of neutrality there are gains to be had. Such gains include; established relationships, collegial connections (thus the possibility of enhanced rapport and communication) and knowledge of the institution (reducing disorientation).

3.5.1 Researcher position, voice and perspective

Centripetal to qualitative research is the notion of reflexivity (Patton, 2002). Reflexivity concerns the researcher self-questioning and understanding their own perspective and how this can impact upon the findings of the phenomena being studied. Indeed, a fundamental criticism levelled at qualitative research is the perceived bias of the researcher in their collection and interpretation of data (Mason, 2002; Polit and Beck 2006). For such critics, it is the interaction between the researcher and the researched which undermines both the validity and reliability of the data obtained.

To address this perceived limitation, exponents of the interpretivist paradigm assert that researchers should, “Make systematic efforts to set aside prejudgements regarding the phenomenon being studied” (Moustakas, 1994, p.22). This is advanced further by Patton, who argues that researchers need to:

Be attentive to and conscious of the cultural, political, social, linguistic and ideological origins of one’s own perspective and voice as well as the perspective and voices of those one interviews and those to whom one reports (Patton, 2002, p.64).

For Moustakas (1994), it is important that researchers should aim to maintain a neutral stance and be receptive of the responses given by the participants. However, the reality of a researcher being detached from their data is questioned by Hodkinson (2009). Hodkinson (2009) asserts that any attempt to remain objective about pre-existing knowledge, feelings or perceptions is an attempt to apply positivistic rigour to qualitative research. Avis (1995) suggests that instead, 'auditability' is more in keeping with the philosophy of qualitative modes of enquiry, here the researcher clearly identifies the development, progress and conclusions of a their research. The epistemological beliefs underpinning this study supported my view that a true separation of researcher and researched was not possible and as such was not sought.

Braun and Clarke (2013) suggest that there are two types of reflexivity, functional and personal. Functional reflexivity relates to the tools and processes employed throughout the research and the identification of ways in which these may have influenced the research outcomes. Personal reflexivity on the other hand concerns itself with the researcher themselves. Here, the researcher is advised to make themselves a visible part of the research process – arguably, unlike in the positivist tradition. In practice, this goes beyond acknowledging who we are as researchers but also how our own assumptions, view of reality and the issue under investigation can impact and shape the knowledge produced (Rice, 2009).

Whilst previous discussions have highlighted that a level of subjectivity is accepted within the interpretive paradigm, under which this study falls, I believe that adopting a reflexive stance enabled me to highlight, explicitly, any potential influences on the methodology employed and the subsequent approaches to data analysis. From the outset, an inductive approach was employed with the aim of reducing the impact of prior knowledge and experiences. This 'bracketing off' as advocated by Denscombe (2007) proved difficult at times as I could not detach my previous experiences in this field from the data arising.

Acknowledging a personal stance in research is of importance, as such it necessary to state my own position in this research in relation to both dyslexia and those with dyslexia training to be primary classroom practitioners. First and foremost, I do not have a personal diagnosis dyslexia or dyslexic tendencies, rather my interest in this area was aroused by my employment as an ITE lecturer. A number of complaints from school staff raised with me directly, as a senior member of the ITE teaching team, led me to question my own beliefs and attitudes towards inclusion of all as, throughout my professional and personal life, I have always sought to adopt a pro-inclusive approach to education, linking to my personal philosophy about equality and the notion of social justice.

There clearly exists confusion surrounding dyslexia but as stated in Chapter 2, my own belief is that this presents no just cause for abandoning it. For those with the label, this affords a level of understanding of potential weaknesses and possible ways these may be mitigated (NIACE, 2005). Unlike Elliott and Grigorenko (2014), I believe that the term 'dyslexia' does still have its use and that people with dyslexia are distinguishable from those who have reading difficulties, such as Specific Reading Comprehension Deficit (Cutting, 2013) or who are termed 'poor readers'. This belief arises from examination of a vast array of studies. Badian (1994), for example, concluded that, when tested, both those with dyslexia and poor readers had phonological difficulties but that these deficits were more extensive in those with dyslexia, findings supported by Stanovich (1988).

Neuroscientific studies (Garalburda, 2005; Knight and Hind, 2002), through the use of PET scans and MRIs, have evidenced that misplaced cells are present in the outer layer of the cortex, in the left hemisphere (the area of the brain associated with language development), of those with dyslexia, and genetic research, as reported by Schulte-Körne, Warnke and Remschmidt (2006), has concluded that current genome linkage research has indicated that there are nine gene regions which are linked to dyslexia. However, there is no 'dyslexic' gene per se.

At the outset of this research, having worked largely with primary aged children, my view of dyslexia was couched in terms of difference, rather than deficit, and the need to employ different teaching strategies to support the development of young learners with dyslexia. In recent years, working as an ITE lecturer has served to heighten my awareness of some of the complex issues experienced by those with dyslexia entering the teaching profession and those supporting them.

It remains my belief that individuals with dyslexia should have the same right to apply and access ITE programmes as those without, however, they should ensure that any strategies they need to employ, to mitigate their known areas of weakness, are appropriate and successful. It is my view, that anyone training to be a teacher, with or without dyslexia, must meet the minimum, national standards and be able to fulfill the daily roles and responsibilities of being a primary classroom teacher. Failure to fulfil these should result in those individuals being withdrawn from the profession.

It is evident that as this research progressed, I experienced my own internal conflict, a myriad of moral, ethical and legislative issues; a conflict between past, professional experiences and my personal philosophy of social justice and disability. To account for this, a personal research diary was kept, as a means of scaffolding my reflexivity and to record and reflect on possible tensions and developing ideas (Simons, 2009).

3.6 The sample

The suitability of the sample selected is of central importance to the overall quality of the research. Guided by Stake's view that, when considering a sample framework, "The first criterion should be to maximise what we can learn" (Stake, 1995, p.4), careful consideration was needed when defining the population to be researched. A number of factors such as time, cost, administrative support and accessibility can also impact upon the size and nature of the sample generated.

Rather than seeking to be representative in the scientific sense, the sample needed to reflect the diversity of the stakeholders involved with students with dyslexia, training to be teachers. Based upon the typology of sampling strategies suggested by Miles and Huberman (1994) a purposeful approach, acknowledging subgroups within the total sample was deemed as being most appropriate for this research. In addition, judgments have to be made concerning three additional factors: the actual sample size; accessibility to the sample and the actual sampling strategy to be employed (Cohen *et al*, 2001).

The subgroups of interest were determined through reading undertaken during the review of literature, identifying stakeholders used in previous research and those I identified as missing from previous sample frames, and a consideration of stakeholders I was in regular contact with regarding the phenomena to be explored. Stakeholders for this research were deemed to be those in regular and direct contact with those training to be teachers, who had a vested interest in the quality of trainee teachers, their skills and activities. ITE lecturers (including staff who oversee students with support plans), working on the PGCE and BEd programmes constituted one subgroup of the total sample population. Previous research by Riddell and Weedon, (2006) has explored general HE lecturer attitudes towards those with dyslexia but these lecturers were not involved in ITE specifically. In addition, this research was conducted prior to the implementation of much equality legislation and so these considerations, combined, served as a driver to examine attitudes from ITE lecturers.

Emerging from the literature is a greater need to utilise employer samples and to assess attitudes of those in the employment settings rather than those in educational contexts alone. With regard to the overall aim of this research and research objective 3, there is a clear absence of previous research in which attitudes of school based staff and potential employers, involved in ITE, towards those with dyslexia training to be primary teachers are explored. With this in mind, school staff (Headteachers, Assistant Headteachers, Senior Leadership/Management team staff and classroom teachers),

who facilitate involvement in ITE, by hosting trainee teachers in their schools/classes, and who were named contacts as 'mentors', responsible for overseeing their training comprised the second subgroup.

A study by Morgan and Burn (2000) explored how a student, with dyslexia, could be supported on an ITE programme (investigating the students' own views and those of her lecturer) however the attitudes of other ITE students/peers is again missing from the existing research base. Resultantly, the third subgroup comprised current ITE students (with and without dyslexia) studying on BEd, PGCE and SD programmes.

The final subgroup comprised parents. Again, an examination of parents' attitudes towards those training to be teachers, with dyslexia, is missing. For inclusion in this research, parents asked to participate were those of children in whose class there was a trainee teacher on assessed teaching placement.

There are of course many other potential stakeholders when considering ITE and students training to be classroom teachers. Such stakeholders include the National College for Teaching (which is responsible for some of the key guidelines and recommendations), Ofsted (a body which inspects teaching and learning standards in school) and unions associated with the teaching profession. These stakeholders, arguably, are a step removed from students, not in direct contact with those training to be teachers on a regular basis. Furthermore, these stakeholders can often come from the stakeholder groups identified for inclusion in this present research. For example, some Ofsted inspectors are also Headteachers. The scope of the current study did not allow for these peripheral stakeholders to be consulted and investigation into their attitudes towards those with dyslexia training to be teachers poses an opportunity for further research.

3.6.1 Sample – size and selection technique

Sample sizes at both ends of the size spectrum can raise concerns. Samples that are considered too large can be considered as unwieldy and those that are too small can raise questions about representativeness (Cohen *et al*, 2007). Bryman (2008) suggests that with regard to representativeness, size does matter, with a larger sample being more representative of the given population (providing that random sampling is used). Sample size can be affected by attrition and respondent mortality – some participants will fail to return the questionnaire or withdraw from the research.

For the purpose of this research, the sample, for the first phase of the data collection, namely the questionnaires, was comprised of four subgroups. Sample sizes were determined with the aim of generating an anticipated 20% response rate (Nulty, 2008):

- 1. Students** – Through random sampling, where every other student was selected from an alphabetical list of 576 students, 288 active students on the undergraduate and post graduate ITE programmes were invited to complete questionnaires.
- 2. School Staff** – Although the institution works in partnership with over 500 schools each year, many of these do not facilitate students on assessed teaching placements. For the purpose of this research, only schools that had students placed with them for assessed teaching practices were invited to participate. This totalled 245 schools. The person contacted, via email, for inclusion in the research was the named individual in charge of planning for and supporting the ITE student experience in their given school as these were deemed to have direct contact.

3. **University academics** - Lecturers employed within a School of Education, on the ITE programmes (both undergraduate and post graduate routes into teaching). This sample group was comprised all 18 senior lecturers, including three Programme Leaders, the Assistant Head and Head of Department.

4. **Parents/carers** – Parents are an important stakeholder within the domain of education and therefore it was deemed essential to gather responses from parents. Gaining access to parents proved difficult as the researcher does not work within a school setting. 25 schools were randomly selected from the list of active partnerships schools which support ITE students on assessed placements. Parents of children in classes supporting an ITE student served as the criterion for selection. The majority of schools, from the sample, rejected the request for involvement in the study. Several reasons were given for this, including: low literacy/reading skills of the parents, low technological skills, poor access to online resources, low levels of parental engagement within the school. Five schools did agree to take part, with parents from 8 classes being invited to participate in the research. This gave a subgroup sample population of 151 parents/carers.

It is important to note here that the subgroups were not intended to be representative of the general teaching, student and parent population per se as it was decided that a representative sample, given all possible demographic variables, would not be possible and thus would only constitute a pseudo-representative sample (Christopoulos, 2007). As a result, I am aware that the results of this research represent the views of this group of respondents and that generalisability to the whole population is difficult. However, as Braun and Clarke (2013) recognise, in qualitative research the aim is to describe and interpret rather than to generalise. A demographic overview of participants, who engaged with the research is located in Chapter 4 p.117-119.

Turning here to Phase 2 of the data collection process, Sandelowski (1995) posits that for qualitative research, sample size is a matter of judgement. This is continued by Lichtman (2010) who argues that most qualitative research studies use relatively small samples but cover themes and material in depth. The overarching aim of the interviews, and therefore the interview sample, was to gather data which was qualitative, transferable and credible to the research aim and questions. In relation to credibility, data was required that presented a 'true' picture of the attitudes and reasons underlying these attitudes towards trainee teachers with dyslexia whilst the transferable data would seek to present a picture of the phenomenon which is recognised to the reader. It is arguable, therefore, that within this research, the qualitative data is specific to this research context.

For the purpose of this research, the qualitative nature of Phase 2 of the study and the constraints of manageability, a sample which represented at least 5% of the total population of the four sub groups was deemed to be sufficient to approach for interview. Ultimately, three Headteachers, three ITE teaching staff, three students and two parents agreed to take part in the study, following random selection from a list of potential participants from each subgroup. An overview of their demographic characteristics is located in Appendix 13.

3.7 Data analysis

In the preceding sections, methods for collecting data were critically evaluated. This section serves to justify the approach taken to data analysis providing a consideration of underlying principles, transcription and coding.

3.7.1 Underlying principles

The data analysis process was informed by a number of considerations including the philosophical assumptions of the current research; the qualitative paradigm employed; the research questions and the conceptual framework developed from literature. The nature of much of the data collected throughout this research is open to multiple interpretations and is value bound. The use of interviews, in particular, and the resultant data means that the interaction between the researcher and the participants should not be ignored (Graneheim and Lundman, 2004). As Punch (2009, p.197) asserts:

Methods for the analysis of data need to be systematic, disciplined and able to be seen (and to be seen through, as in “transparent”) and described. A key question in assessing any piece of research is: How did the researcher get to these conclusions from this data?

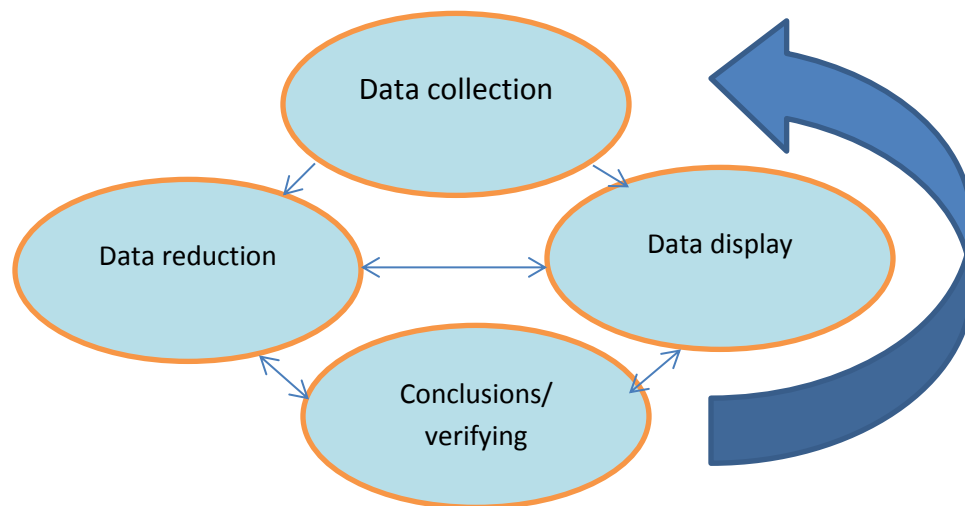
Empirical research and the associated data analysis have an accepted long standing reputation for being systematic and transparent - allowing for ease of reproducibility by different researchers (Braun and Clarke, 2013). Historically, this has been a key weakness in qualitative research however, in recent years, developments in qualitative data analysis and the emergence of the concept of the ‘audit trail’ has negated such claims (Punch, 2005).

There is a plurality of specialised and general approaches, all with their own guidelines, for analysing data (Creswell, 2013). Caution is needed as these often imply that following the guidelines, like a recipe, will ensure success. Adhering to the principles set out by Punch (2005) – being systematic and transparent – are of vital importance but, as Braun and Clarke (2013) assert, qualitative data analysis should be the product of ‘analytical sensibility’ (2013, p. 201). With this in mind, the method of data analysis employed throughout this research followed a general inductive approach (Thomas, 2006).

Hopwood (2004) stresses that procedures should be adapted, as necessary according to the needs of the study, as such data analysis remained true to the ideal of being flexible, fluid and reflexive in the research process. Indeed, as Patton (2002) argues, there are no exact rules for the transformation of data into findings but it is the responsibility of the researcher to draw out as much information, as possible, from the data.

Miles and Huberman (1994) present a useful model of data analysis. Named 'transcendental realism', this model consists of three main components – data reduction, data display and conclusion drawing. This model served to inform the model of data analysis employed. As can be seen in Figure 7, these three components do not occur in isolation but interact throughout data analysis process.

Figure 7: Components of data analysis: interactive model (adapted from Miles and Huberman 1994, p.12)



This approach to data analysis, rather than being a linear process from data collection through to conclusion making, is iterative, simultaneous and overlapping, allowing for refinement and the focusing of data collection throughout the entire research (Seidel, 1998).

3.7.2 Data reduction

Data reduction refers to a process whereby the mass of data gathered is condensed, with, inevitably, some of the data being eliminated and being arranged in a way to allow ease of comparisons and interpretations to take place. Wolcott (1994) refers to this process as sifting or 'winnowing'. For Miles and Huberman (1994) data reduction can be achieved through a variety of strategies, which may differ, depending upon the stage of the data reduction. Data reduction is a continuous process throughout data analysis and should not be seen as something separate.

There is a number of computer software packages, presently available, such as Nvivo, Statistical Package for the Social Sciences and ATLAS which support both the data reduction process and visualisation of qualitative data. Some software packages can analyse text, highlighting frequency of words/phrases and their position in the text whilst other software allows for coding and thematic analysis. The key advantages cited for using software are that it can be more efficient, supports with coding decisions, helps to document the research process and changes can be made quickly and easily (Rodik and Primorac, 2015).

Whilst simple computer software, in the form of Excel, was used for the quantitative data obtained in this study, more traditional approaches, in the form of paper and pen and word processing, were used in the analysis of qualitative data. This decision was made based on a number factors. First, although access was available to computer assisted qualitative software through the availability of a software license, no training (formal or informal) had been received in its use. The timing of the training workshops were out of sync with the data collection and data analysis phases of this research and waiting to attend would have caused a significant delay in the research process.

Second, there is a lack of community of followers within my own research setting and thus no recommendation had been received, from experienced colleagues, regarding the effectiveness of the software, compared to traditional methods. Combined, these

factors meant that the advantages of using it, 'internal' to the software, were not known (Rodik and Primorac, 2015). Furthermore, as an interpretivist researcher, the way in which computer assisted software mitigates the relationship between the researcher and data does not align with my own philosophy. As Roberts and Wilson (2002) assert:

Computing technology assumes a positivistic approach to the natural world that sees it as being composed of objects that humans can study, understand and manipulate but the goal of qualitative researchers is to try and see things from the perspective of the human actors (p.5-6).

The overarching concern here is that the use of computer assisted packages can lose the shades of meaning and interpretation of data which, I believe, are more easily maintained through traditional methods (Rodik and Primorac, 2015). Additionally, again, in line with my own epistemological perspective, software cannot replace the natural choices made by the researcher in selecting how to analyse and interpret their data (Bringer, Johnston and Brackenridge, 2004; Silver and Lewins, 2014).

i) Data reduction in practice: Phase 1- questionnaires

The questionnaires used in Phase 1 the of data collection process combined a series of quantitative and qualitative questions. The first phase of data analysis involved both exploratory data analysis of all the participant demographic characteristics (categorical variables) and attitude scores (continuous variables) (Punch, 2009). In the second phase of data analysis, statistical analysis was employed to identify trends between attitudes expressed and participants' demographic features. Statistical analysis was employed using Excel to ascertain scores such as means and modes.

Qualitative data, from the open ended questions, from the questionnaires, was then analysed through systematic use of content analysis. Content analysis can be used for both inductive and deductive purposes. An inductive approach was used in this research. Throughout content analysis, key words were electronically colour coded and assigned a code number (see Appendix 14). These key words were informed by my prior knowledge, following reading undertaken to inform the conceptual framework

(shown on p.58) and the questions posed to the participants. These constituted 'prefigured' key words/phrases (words which were being looked for) but in the true epistemological spirit of the research, I also maintained an open mind and identified key words/phrases and thus codes which emerged throughout the analysis.

In establishing a coding strategy the researcher was then able to identify reoccurring or dominant codes which led to the generation of overarching themes emerging from the data. Creswell (2013) critiques the use of preliminary counts of codes, as suggested by Miles and Huberman (1994). For Creswell, whilst such counts do provide an indicator of frequency, this can lead to some misinterpreting high counts as being of magnitude and of central importance to the research when this may not be the case. In addition, Creswell (2013) asserts that by counting codes, this inherently gives equal weighting and importance to all of the codes when the code may have been used to represent contradictory views. Words/phrases identified throughout the content analysis phase of additional questions, were then used to create themes emerging from the questionnaire data under which a group of associated words/phrases could be placed (Punch, 2009) see Appendix 15.

ii) Data reduction in practice: Phase 2 - Semi-structured Interviews

Qualitative data from the current study was analysed employing the procedures suggested by Miles and Huberman (1994). Full, verbatim transcripts for the semi-structured interviews were produced prior to the coding and analysis of textual responses. The transcripts concentrated on the actual words spoken during each interview, including other non-verbal cues and occurrences (such as laughter and pronounced pauses). Once completed, transcripts were sent, electronically, to the relevant participants to check for accuracy of representation and meaning. This is important as transforming a conversation into a written medium includes an element of subjectivity (Gibbs, 2007).

For the purpose of this research, a more detailed method of transcription, as typified by the Jefferson method of transcription (Hepburn and Bolden, 2013) where discourse analysis or conversational analysis is employed was not needed (Atkinson, Maxwell and Heritage, 1984). In the Jefferson model, interviews are transcribed in-depth and include details such as emphasis, volume, delay and overlap. Key reasoning for not undertaking this level of detail included the belief that such an in-depth transcription may deviate attention away from the actual focus of the interviews.

Silverman (2010) and Creswell (2013) advocate that the researcher should become immersed in the data, a form of familiarisation. Prior to coding, each of the transcripts were closely examined and re-read in their entirety. This allowed the researcher to become immersed in the data and to get a sense of the whole. The coding process was not an easy task and was amended on several occasions until it was believed there was coherence and consistency, which was then checked and replicated by a critical friend. Initially, abbreviations and numerical codes were assigned through content analysis for the interview transcripts. This proved problematic due to the number of codes assigned (see Appendices 16 and 17). This approach became unwieldy, I felt distant from the data and the point of coding was lost. As a consequence the system required revision.

Resultantly, to avoid data overload, a decision was made to reduce the data, as espoused by Glaser and Strauss (1967) and Miles and Huberman (1994) using memo-ing. By being able to capture any ideas that emerge as the data is analysed, memos help make sense of data. Memos were written as a way of capturing points of interest (for an example of the first use of memo-ing see Appendix 18). Memo-ing, or paraphrasing (Mayring (2004) is a useful tool in getting beyond the “flood of particulars” (Miles and Huberman 1994, p.72) and thinking intuitively at a more conceptual level. However, whilst these initial memos helped to crystallise early thinking and early coding, their volume and physical disparity over hundreds of pages of transcripts was difficult to manage.

To this end, responses from the interview questions were copied and pasted from each of the transcripts into tabular format to ensure grouping according to the question asked and the research objectives. At this point, statements deemed to be negative, positive or neutral were then colour coded. Each line/sentence/paragraph was read and the key point/phrase noted/summarised (Miles and Huberman, 1994; Mayring, 2004). Following this first stage of data reduction, these researcher derived summaries were then coded using key descriptive words. Summative analysis was then undertaken to draw out key findings, statistics and to identify emerging themes-see Appendix 19. Themes that were embedded within the text were identified and used to support the presentation of results/findings. A visual representation of the key words and themes emerging in relation to the research aim and objectives can be found in Appendix 20 and 21.

3.7.3 Presentation of data in practice

i) Phase 1- Questionnaires

Presentation of data generated, as a result of analysis, takes the form of a descriptive and statistical summary. Wilson (2009) advocates clear and concise approaches to the presentation of research findings. To this end, use has been made of a range of charts, graphs and tables to support the reader's visualisation of the textual, descriptive summaries of findings. Whilst this research did not purposefully employ correlational analysis, there were striking differences between the data sets which presented themselves as being of significance and warranting further analysis.

ii) Phase 2 -Semi structured interviews

The presentation of findings sets out to highlight the principal themes and content which emerged from the responses during the semi-structured interviews. In an effort to protect anonymity, names have been changed with pseudonyms although these do remain gender specific. Numbers or letters have not been used as these, I believe, demonstrates lack of regard to the participants. Quotations are extensively used throughout and are presented verbatim although where needed names have been removed to protect anonymity of the participants or their setting.

3.7.4 Conclusions

In this research, conclusions were induced from and through visualisation of and immersion in the data. This final activity in Miles and Huberman's process of data analysis is assisted by the first two stages however, as Punch (2005) argues, all three activities almost take place simultaneously and hence the data analyst may note down early conclusions which are then supported by further data analysis. Figure 8 illustrates the data analysis process, as advocated by Miles and Huberman (1994), employed in practice for this research.

Figure 8: Summary of data analysis process in practice

	Data reduction		Data display	Conclusion drawing
Phase 1 Questionnaires	Quantitative data – Likert scale and closed questions	Exploratory and descriptive data analysis of all the participant demographic characteristics (categorical variables) and attitude scores (continuous variables) Statistical analysis: Calculation of frequencies, modes and means	Graphs (Chapter 4) Comparisons of Likert statement outcomes (Chapter 4)	Emerging themes Re-reading of data
	Qualitative analysis – open ended questions	Content analysis Frequency of words Statistical analysis. Emerging themes		
Phase 2 Interviews	Qualitative data	Transcription of interviews Winnowing Content analysis – using existing codes and new codes derived from the data set Summative analysis Identification of themes	Summary charts (Table 7) Use of pertinent quotations (Chapter 4) Visual maps of key words and themes (Appendices 20 and 21)	
Stage 3 Meta-analysis	Drawing together key themes from all data sources Development of conclusions and recommendations			

3.8 Chapter summary

This chapter has outlined the ontological and epistemological principles underpinning the theoretical stance of the researcher, the research paradigm within which this research falls and the subsequent methodology employed. A range of data collection methods have been explored, with those deemed as being inappropriate rejected in favour of those which best allowed reliable and valid data to be obtained in light of the principal research aim and associated research objectives.

The use of questionnaires, at Phase 1, of the data collection process, consisting of both closed and open ended questions, allowed for a snap shot of attitudes and served as the basis on which to devise the schedule for Phase 2 of the data collection process, the semi-structured interviews. The use of semi-structured interviews ensured that the same format, sequence of questions and wording was applied to each respondent without constraining the potential depth of data each yielded. Data obtained was qualitative and captured directed quotations about stakeholder attitudes, perspectives and experiences about the phenomena under investigation.

The potentially contentious nature of the phenomenon under investigation required trust between the researcher and the respondents involved. With regard to the questionnaires the absolute guarantee of anonymity served to aid the response rate and reliability of the data obtained. Confidentiality and anonymity also served to ensure that interview respondents felt at ease to share their views and experiences. Key to the success of this strategy would be what Johnson and Christensen refer to as, “empathetic neutrality and mindfulness” (2004, p.378).

By adopting an empathetic stance throughout the series of interviews, the researcher sought understanding without passing any judgement, by remaining objective. Openness, sensitivity, respect, awareness, and responsiveness were qualities required to ensure interview respondents did not feel the need to alter their responses

to in line with their perceptions of the research aim. The role of the researcher in this instance then carries responsibility for the validity and authenticity of the data obtained and its subsequent analysis

Chapter 4 – Findings

This chapter seeks to provide a comprehensive overview of the findings generated throughout the data collection process for the WBP. In doing so, this chapter will communicate a systematic record of the results obtained through the use of numerical data, data description and interview extracts. Wilson (2009) suggests that clear and concise treatment of data is needed when presenting findings. To this end, use has been made of a range of charts, graphs and tables to support the reader's visualisation of the textual, descriptive summaries of findings. A critical discussion of these findings, linked to previous research, is omitted as this will be undertaken in Chapter 5.

Within this chapter, and for ease of access, the results obtained are separated into two principal sections. These sections comprise:

1. Analysis of returned data – response rates and demographic characteristics of Phase 1 and 2 participants. This will allow for ease of replicability of the study.
2. A synthesis of responses given to non-demographic closed questions and 'open' questions asked at Phase 1 and 2 of the data collection process.

Within this latter section, data is presented in line with the research objectives and emerging themes, linked to the conceptual framework presented on p.58.

4.1 Returned data rates – Phase 1 (questionnaires)

Participants of Phase 1 were grouped according to one of four main types of stakeholder. These were, namely, 'ITE students' currently studying on either a BEd, Core PGCE or School Direct PGCE programme, 'ITE staff' (lecturers) currently employed within an ITE department, within an HEI, 'School staff' comprising Headteachers, Deputy Headteachers, Assistant Headteachers, Senior staff and classroom teachers, and 'Parents/carers' of children in classrooms supporting an ITE student on assessed placement.

In total, 214 complete questionnaires were returned. Table 1 displays the number of participants (within each given stakeholder group) and the number of questionnaires returned. The table also indicates the number of questionnaires that were started but not completed thus their responses being eliminated from the data set.

Table 1: Completed and incomplete questionnaire data rates

Stakeholder group	Sample size	Completed questionnaires	Incomplete questionnaires	% Response rate overall	% Response rate of completed questionnaires
ITE students	288	90	20	38.1%	31.2%
ITE staff	18	18	0	100%	100%
School staff	245	81	15	39.1%	33%
Parents	151	25	36	40.3%	23.8%
Total sample	702	214	71	40.5%	30.4%

The response rate, for the total sample population, of completed questionnaires exceeded the anticipated return rate of 20% (Nulty, 2008).

4.1.1 Phase 1 ITE Programme composition

Table 2 shows a breakdown of the type of ITE programme studied by sample Group 1 (ITE students).

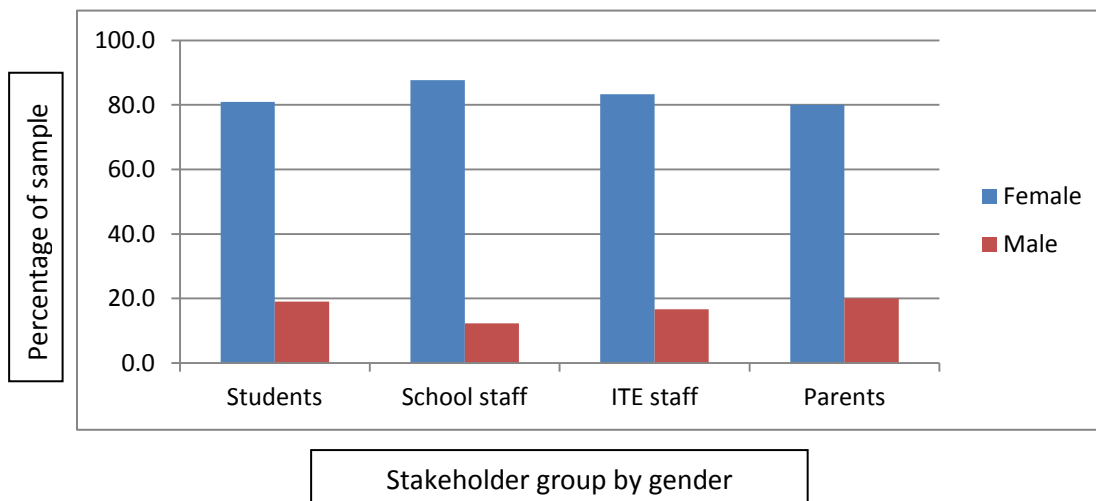
Table 2: Number of participants studying on each ITE programme

Type of ITE programme	Number of questionnaire respondents	% of sample
BEd	66	73.3%
Core PGCE	21	24.3%
School Direct	3 (2 secondary, 1 primary)	3.3%

4.1.2 Phase 1 Gender composition

Figure 9 shows the gender composition of the sample groups. A similar, consistent gendered trend across the sample groups is evident. This, arguably, reflects the primary teaching sector in general terms (Teaching Times, 2011). As a complete sample group the gender composition equated to 83.5% female and 16.5% male participants.

Figure 9: Gender composition of each sample group (shown as a percentage)



4.1.3 Phase 1 Age composition

Figure 10 illustrates the age spread of participants within each of the sample groups. In the ITE student sample, ages ranged from under 20 to 50 years whilst school staff ranged from 21 to 61+ years. With regard to ITE staff, no staff reported to be under the age of 20 years or over the age of 60. In the parent sample group, the age ranged from 21 to 50.

Figure 10: Age of participants in each sample group (shown as a percentage)

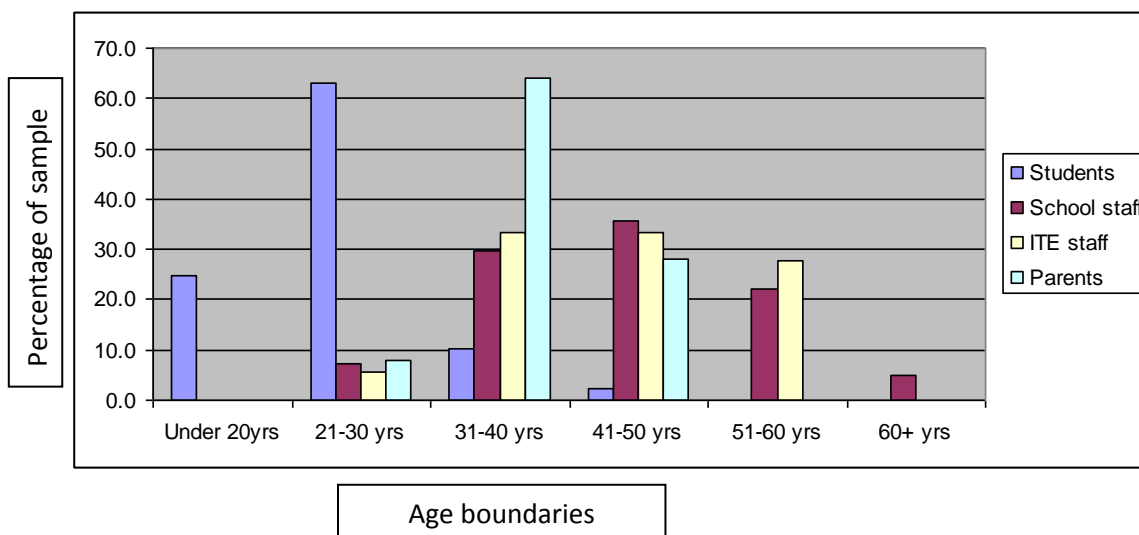


Table 3 demonstrates the percentages, of age ranges, for the complete sample population.

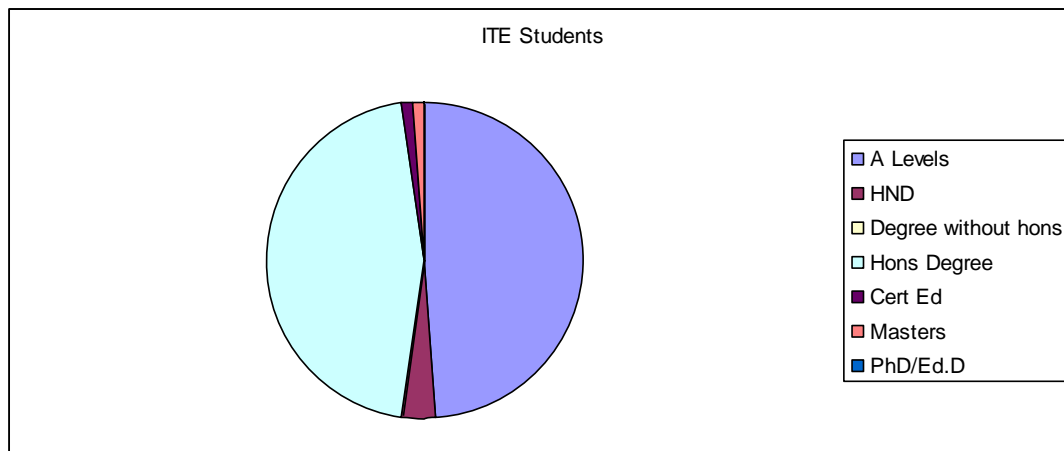
Table 3: Percentage of complete sample population falling into age range categories.

Under 20yrs	10.3
21-30 yrs	30.5
31-40 yrs	25.8
41-50 yrs	20.7
51-60 yrs	10.8
61+ yrs	1.9

4.1.4 Phase 1 Highest level of qualification

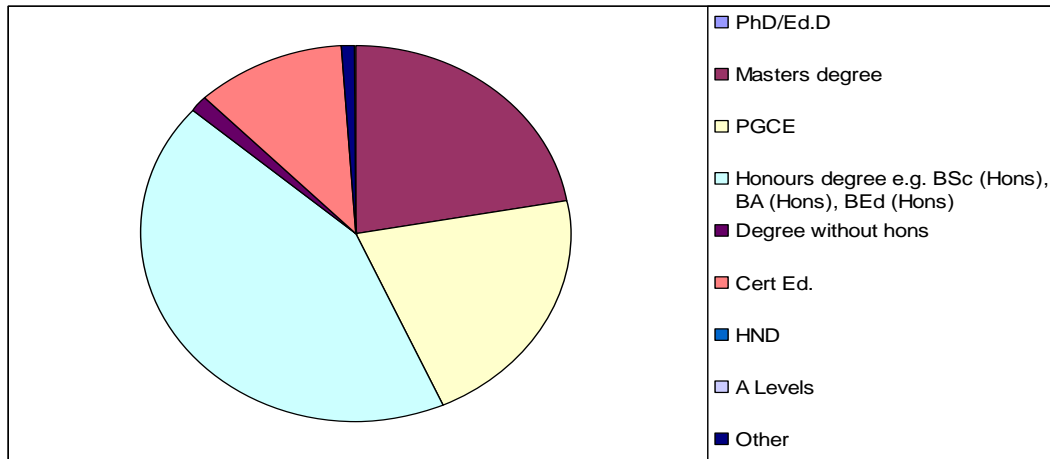
Figures 11-15 demonstrate the highest qualification held by the sample groups. As shown in Figure 11, being comprised of BEd and PGCE students, the largest categories of qualification are A Levels (42.4%) and Honours degrees (39.8%). It is possible that students, on the BEd programme, in their final year may have recorded Honours degree as their highest degree as several of the students indicated that they had 'passed' their degree even though their results are not officially ratified until after the questionnaire was completed. One student recorded having a Masters qualification but no students recorded a qualification higher than this.

Figure 11: Pie chart of ITE student highest qualification



As seen in Figure 12 on page 121, the majority of school staff reported having a Bachelors' degree with Honours as their highest qualification (43.2%). The lowest qualification reported was that of the Certificate in Education - attained by 11.2% of the sample group.

Figure 12: Pie chart of school staff highest qualification



As shown in Figure 13, most ITE staff (61.1%), reported having Masters level qualifications. The highest qualification reported was that of PhD or Ed.D (equating to 11.1% of ITE staff)

Figure 13: Pie chart of ITE staff highest qualification

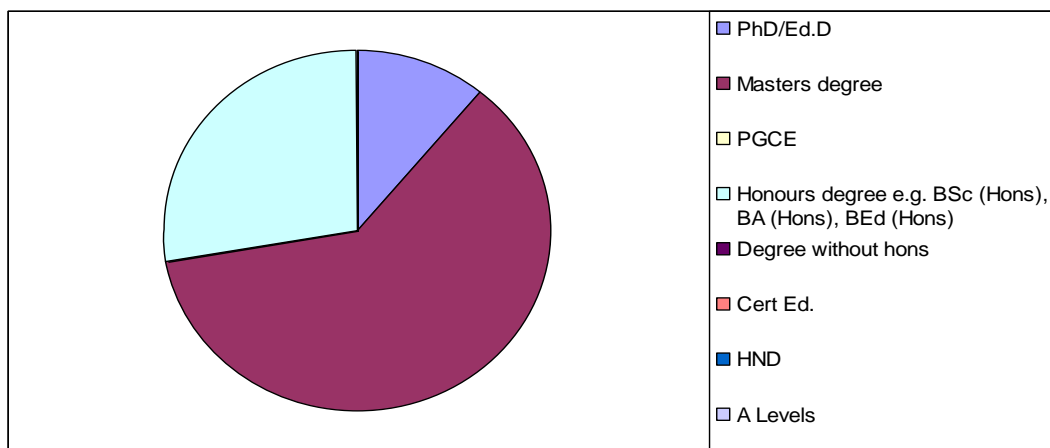
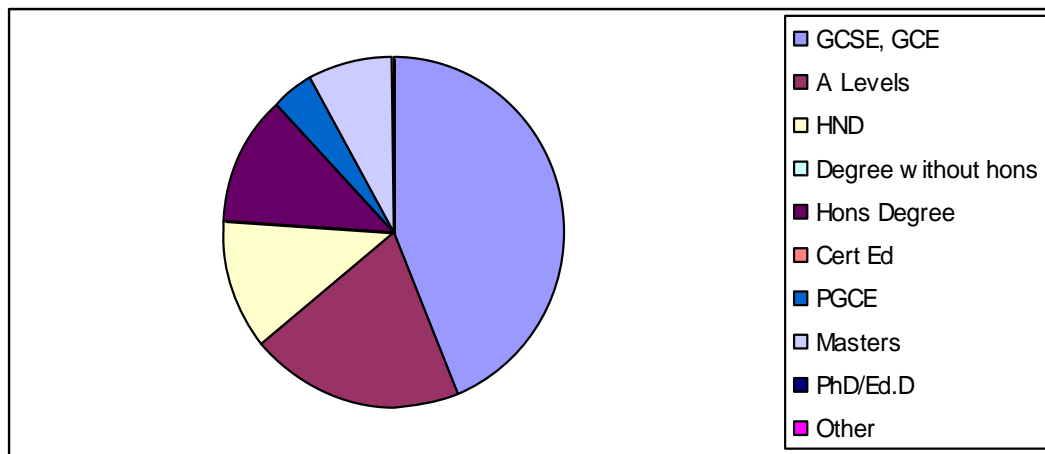


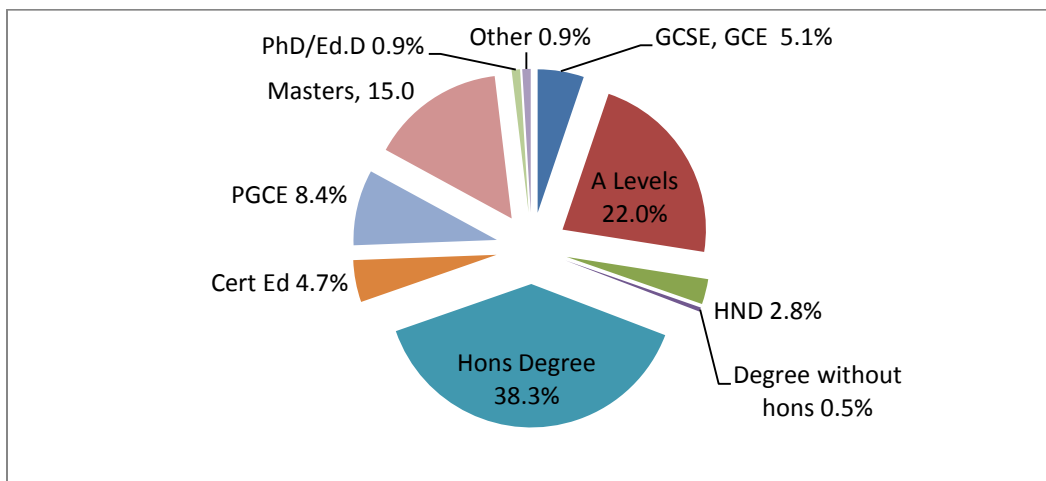
Figure 14 shows how the parent sample group has the greatest variance in the type of highest qualification identified. The majority of parents, 44%, reported GCSE, or their equivalent, as their highest level of qualification.

Figure 14: Pie chart of parental highest qualification



As a complete sample population, the majority of respondents were educated to Honours Degree level. No respondent recorded having no qualifications and only 0.9% of the total population recorded having completed their PhD or Ed.D. This is shown in Figure 15 below.

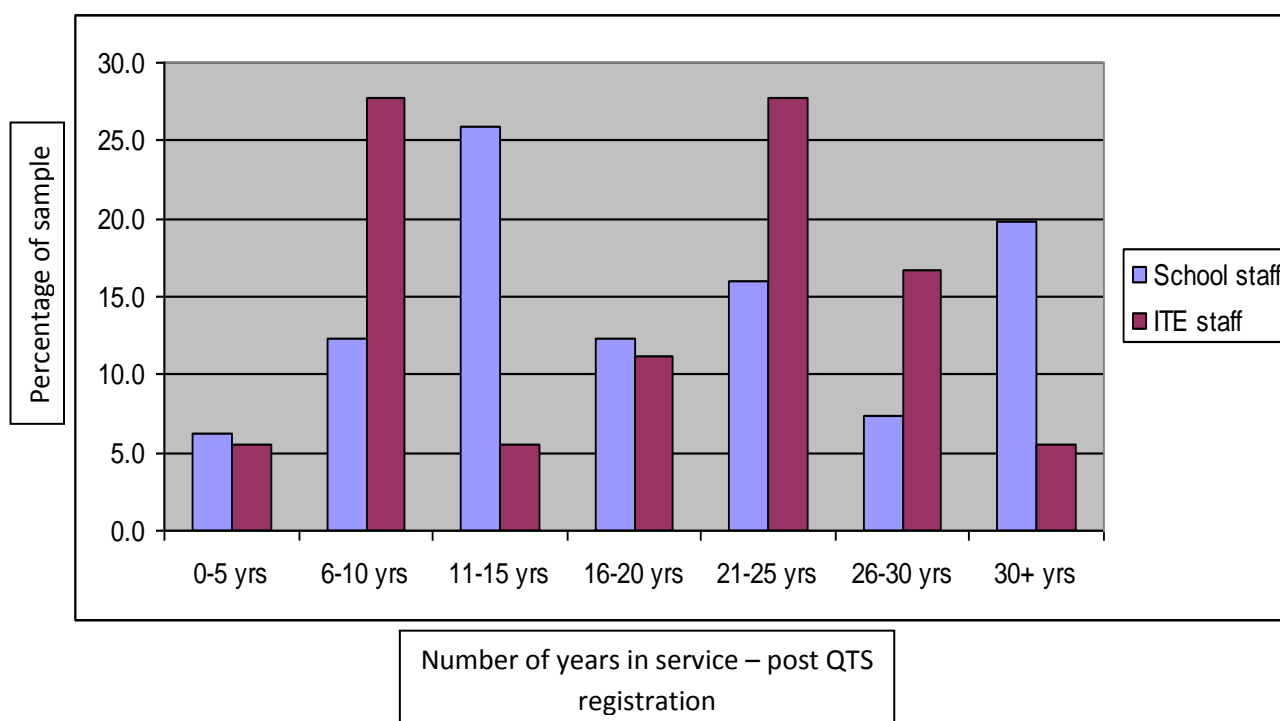
Figure 15: Pie chart of highest level of qualification shown for the total sample population



4.1.5 Phase 1 Number of years employed in an education field

This question was only asked to School staff and ITE staff as it related to post qualification as a teacher. The findings are illustrated in Figure 16, below. The majority of school staff had been in the teaching profession for 11-15 years compared to the majority of ITE staff who had been in the profession for either 6-10 years or 21-25 years.

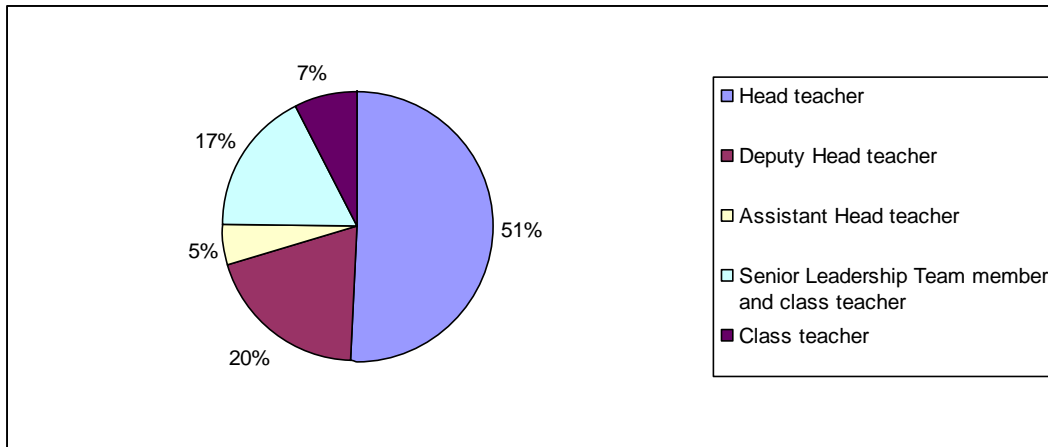
Figure 16: Number of years working in an education field - school and ITE staff



4.1.6 Phase 1 Position held in school

School staff were asked to record their current position in their given setting. Figure 17, on page 124, illustrates that the majority of respondents (92.5%) held senior positions. Only 7.4% of the total sample was employed as a class teacher. All of these participants, had mentored ITE students at some point throughout their teaching career.

Figure 17: Pie chart of position held in current setting by school staff



4.1.7 Phase 1 Employment status of parent stakeholders

Parents were also asked to define their current position in employment. Of the 25 participants, 7 (28%), described their occupation as being ‘professional’, 10 (40%) as skilled worker, 1 (0.4%) as unskilled, 2 (0.8%) as self-employed and 2 (0.8%) people declared that they were currently unemployed.

4.1.8 Demographic characteristics of Phase 2 participants (interview respondents)

In total, 11 respondents were interviewed in Phase 2 of the data collection process. A table displaying the key demographics can be found in Appendix 13.

72.8% of the sample was comprised of females and 27.2% of males. 36.3% of this sample fell into the 41-50 age range, with 36.3% in the 31-50 age range and 27.2% in the 21-30 age range. All respondents reported as having qualifications ranging from diploma level to a Masters. Only one of the respondents declared having a disability themselves – this was identified as dyslexia.

4.2 Synthesis of data from non-demographic closed questions and open questions – Phase 1 (questionnaires) and Phase 2 (interviews)

4.2.1 Research objective 1: Understanding and awareness of dyslexia amongst stakeholders

i) Defining dyslexia

All participants in both Phase 1 and 2 of the data collection process were asked to provide their own definition of the 'term' dyslexia. This enabled comparisons to be made to literature, outlined in Chapter 2, to establish whether the stakeholders involved in this research share the same understanding regarding the term 'dyslexia' or whether there is disagreement regarding its key features. This links directly to Research Question 1.

In Phase 1 of the data collection process, content analysis revealed 33 key words/phrases were used by the complete population of participants, within the study. Appendix 22 shows the number of definitions that included the coded phrases/words identified throughout the coding process for each sample group and the associated percentages. 69.5% of all definitions used phrases such as dyslexia is 'a learning difficulty' or dyslexia 'is a problem with' indicating a deficit model. The majority of definitions from all sample subgroups, involved in Phase 1 of the data collection included reference to reading (including the understanding/comprehension of texts) with 75.6% of ITE student definitions, 53% of school staff definitions, 72.2% ITE staff and 64% of parental definitions including difficulties in reading as being a defining feature of dyslexia. As can be seen, whilst 53% represents over half of the school definitions including reference to reading, this is at least 11% lower than for the other three sample subgroups. However, a difficulty with reading was identified in 65.4% of all definitions provided across the total sample group.

The next common defining feature was that of difficulties with spelling. 52.6% of all definitions provided included a reference to difficulties/issues with spelling. 34.4% of all student definitions, 60.4% of school staff definitions, 61.1% of ITE staff and 84% of parents included spelling in their definitions. Here, there is a difference in the number of students including spelling into their definitions compared to all other sample subgroups -with at least a 21.4% difference between ITE students and school staff, and a 49.6% difference between ITE students and parents recording spelling as a defining characteristic of dyslexia.

In total, 39% of all definitions stated difficulties with writing as a characteristic of dyslexia. Again there was variance in the stakeholder groups. More ITE students included a reference to writing difficulties in their definitions compared to school staff, ITE staff and parents. With 46.7%, 34.5%, 33.3% and 28% including writing in their definitions respectively.

Issues with visual processing, typically identified in definitions as words/letters jumping around a page was the fourth most popular characteristic used in definitions. This was highlighted in 13.6% of all definitions provided. All stakeholder subgroups with the exception of ITE staff identified this as a defining feature of dyslexia.

Whilst 44.4% of ITE staff included a reference to memory/recall in their definitions only 10% of ITE students, 6.1% of school staff and 0% of parents made reference to memory. Organisational skills were similarly identified by ITE staff as being a characteristic of dyslexia with 50% of all ITE staff including this in their definition. However, 0% of parents and only 1.2% of school staff and 3.3% of students saw this as a characteristic of dyslexia.

16.7% of ITE staff and only 6.1% of school staff saw dyslexia as a complex/complicated area but 0% of ITE students and parents mentioned this in their definitions.

Whilst no ITE staff, school staff or parents included statements, in their definitions of dyslexia, relating to intelligence, 6.7% of ITE student definitions stated that dyslexia does not impact on level of intelligence.

ii) Definitions of dyslexia provided by Phase 2 respondents

As with the definitions provided by Phase 1 participants, there was much variance in the nature of the definitions provided by the different stakeholders involved in Phase 2 of the data collection process. However, despite these variations, similarities were evident within the definitions and between the two complete data sets collected, from Phase 1 and Phase 2. For example, a common theme throughout all definitions was one of a deficit model.

All definitions provided during Phase 2, with the exception of one, detailed deficits in particular skills - stating prior to the characteristic given that these were skills the person with dyslexia 'struggles with' or 'has difficulty with', for example. Appendix 23 shows the characteristics identified by frequency.

Appendix 23 shows deficits in relation to reading, spelling, organisation and short-term memory were the most prominent characteristics identified within definitions. In total, 11 different categories of characteristics were identified by the respondents. In comparison to those definitions provided in Phase 1 of the data collection process, difficulties with reading and spelling can be found in the top 5 characteristics in both data sets. However, in Phase 2, deficits in organisational skills and short term memory are more prominent in definitions compared to those given in Phase 1. Discussion with Phase 2 respondents, regarding their awareness and understanding of term 'dyslexia' also revealed that 4 of the respondents did recognise that dyslexia is a complex issue, with many facets, for different individuals, suggesting an awareness of a spectrum of severity. A number of respondents questioned the usefulness of the term:

The definitions and characteristics are so wide and vague I think we could all be classed as being dyslexic to be honest.... In one way I think it's a pretty useless label (Stephen line 30-31).

iii) The impact of pre-service training on unawareness and understanding of dyslexia

The interviews provided an opportunity to explore whether definitions were informed by previous training. Of the 6 interview respondents who held pre-existing teaching qualifications, all 6 reported not having received any explicit input, training or dyslexia development as part of their own ITE programmes/course. If any professional development, in this area, was reported, it was largely through incidental factors such as a children having dyslexia, in their class, whilst they were on teaching practice. All of these respondents undertook their pre-service training between 1992 and 2003.

In contrast, all 3 of the current ITE students interviewed reported as being in receipt of specific dyslexia training as part of their ITE programme. Furthermore, 2 of these respondents also indicated that they had undertaken self-study/investigation into dyslexia to further advance their own understanding. One had also gained input via INSET in their placement school.

The two parents interviewed both reported as not having been in receipt of any training for their own occupations, one of whom is a nurse.

iv) Historical labelling and the emergence of a new label

A consideration of whether understanding of the term 'dyslexia' was informed by historical awareness of the term was explored with the interview respondents. All 11 respondents stated that they had not experienced the term 'dyslexia' in their own childhood, with the majority of respondents stating that they believe that it is a recent phenomenon, which has grown in 'popularity'. Nearly half of the respondents reported that there appears to have been a shift in terminology used, stating that in their own

childhood, those who struggled to read and write were known as poor readers and spellers rather than being called dyslexic. Such views are typified in the response given by Zoe and Paul, who stated:

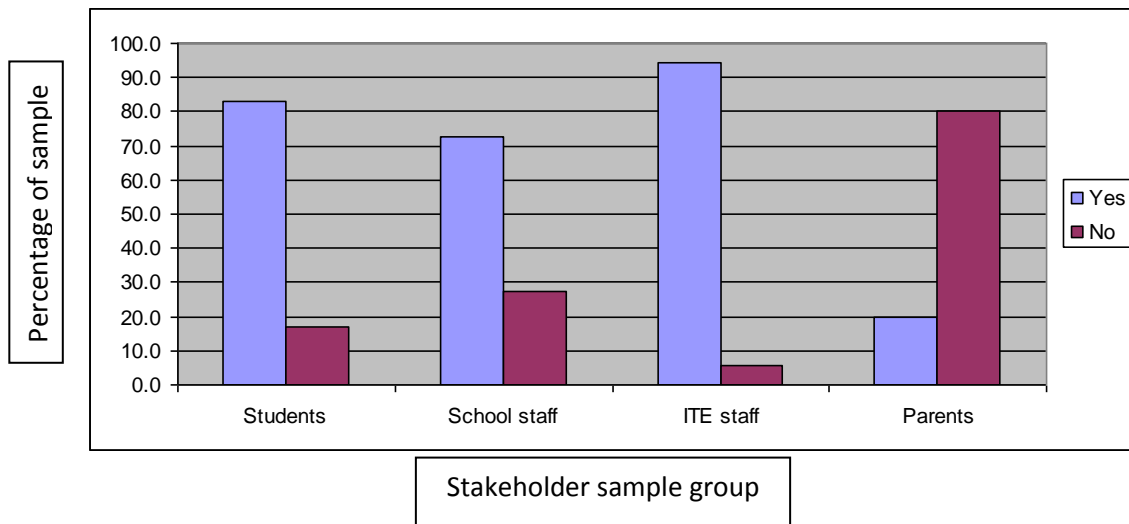
I think it is a new term really. You know we've always had children who have struggled with different aspects of literacy now we have a label for it (Zoe line 68-69).

I think it is quite a recent term though. It didn't exist in my school days. You had kids who were labelled as stupid or thick (Paul line 17-18).

v) **Knowing someone with dyslexia**

All sample subgroups in both Phase 1 and 2 of the data collection process were asked whether they knew anyone who had been diagnosed with dyslexia. As can be seen in Figure 18, at Phase 1, the parent sample subgroup was the subgroup in which the least number of people declared knowing someone with dyslexia - only 20% of this group reported knowing someone with dyslexia.

Figure 18: Number of each sample group who know someone with dyslexia at Phase 1



In contrast, the majority of ITE students, School staff and ITE staff did know someone with dyslexia. However, the number of each of these sample subgroups knowing someone with dyslexia varied greatly with a 21.6% deviation between the highest and lowest incidence reported. As a complete population, 74% of Phase 1 participants recorded knowing someone with dyslexia with 26% reporting that they did not.

9 of the 11 Phase 2 respondents reported that they knew/know someone with dyslexia. This constitutes 82% of the Phase 2 sample, this being 8% higher than for Phase 1 participants, however, as in Phase 1, it was the parent respondents who stated not knowing someone, personally, with dyslexia, rather they were aware of celebrities with dyslexia.

Relationship to individuals known with dyslexia - Phase 1 Participants

Appendix 24 shows the incidence rate of Phase 1 participants knowing someone with dyslexia. A total of 235 incidences of knowing someone with dyslexia were reported across the four sample groups. The highest level of relationship incidence, reported for all four sample groups, was that of 'Personal Friend' constituting 32.4% of all incidences reported. This was followed by the category of 'Other' which included children/students in class/school which accounted for 19.1% of the total number of incidences. Other family members accounted for 12.8% whereas work colleague accounted for 12.3%. All other categories were relatively low in the number of incidences reported, averaging at 2%. The number of mothers reported to have dyslexia was higher than that of the number of fathers by 1.7% and the number of sisters higher than the number of brothers by 1.3%.

Frequency of contact

Appendix 25 indicates that, in relation to the relationships identified with people with dyslexia (as shown in Appendix 24), participants had regular contact with people with dyslexia. Overall, 88.2% of all the sample groups reported having a minimum of monthly contact with people known to have dyslexia. Differences between monthly, weekly and daily levels of contact were minimal with 27.6% having daily or weekly and 33% monthly contact. Only 5.5% of the total sample reported to have less than yearly contact and 6.3% reporting 'other' levels. It is not known what constitutes 'other' levels. In Phase 2, the majority of respondents reported the frequency of contact as being as either daily or weekly, again similar to the level of contact reported by respondents in Phase 1.

vi) Awareness of dyslexia - Personal disability status

In order to establish whether understanding of dyslexia came from personal experience of having a disability, particularly dyslexia, participants in both stages of the data collection process were asked whether they themselves had a disability. In Phase 1, none of the ITE staff or parents reported to have a disability themselves compared to 11.2% of both the school staff and student sample groups. An examination of the types of disability disclosed indicated that out of the 10 students who disclosed a disability, 7 of these were diagnosed with dyslexia, 1 experienced mental health issues, 1 had been diagnosed with speech and language difficulties and 1 reported having some loss of hearing.

From the 9 school staff who reported a disability, 2 participants reported being diagnosed with dyslexia, 1 participant reported a number of disabilities which included epilepsy, depression and old age. Another reported having epilepsy, 1 reported being Bi-Polar, another indicated that they had arthritis and another reported depression. 1 school staff reported that they classed their BME status as a form of disability, which had also led to depression. 1 participant declared a medical condition but not the

nature of this condition. From the categories of disability stated, it is evident that 4 out of the 9 participants reported having some form of mental health disability.

During Phase 2 of the data collection process, one respondent, a student, declared to have dyslexia herself (Wendy). This constituted 9% of the total sample interviewed and is in line with the 8.8% of participants of the total sample in Phase 1 who declared having a diagnosed disability.

vii) Awareness of dyslexia – causes

During Phase 2 of the data collection process, respondent's awareness and understanding of dyslexia was investigated further via the request for the respondents to explain what they think causes dyslexia. Responses gained can be split into causes which fit into medical and social models of disability. For 3 of the 11 respondents, dyslexia is a negative, social construction usually centred around the need for parents to have a label to explain poor progress/underachievement:

The cause of dyslexia for me is neurotic parents and poor teaching. For me it is like ADHD. No, there are naughty children and just as with dyslexia, there are children who are poor in literacy, middle class parents, in particular, seem to need to hide behind a label of dyslexia (Emily line 74-77).

For Stephen this has led to an 'industry of dyslexia':

It's a social construction that has created a whole industry and wealth for those cashing in on it which seems ethically wrong. There are only certain people who gain from this sort of labelling – those whose jobs, careers and mortgages depend on it (Stephen line 65-68).

For 4 of the respondents, dyslexia is caused by underlying medical issues – with most of these respondents suggesting abnormal brain development or genetic factors.

For 3 respondents, notably, both parents and one ITE member of staff, dyslexia is caused by poor teaching methods. As shown in the statement by Paul (line 24-27):

I think we have to ask whether poor teaching or poor methods of teaching has something to do with it. Long gone are the days of rote learning and suddenly there is an explosion of people who can't spell. I think the government needs to look at how children are being taught these days.

One respondent, who has dyslexia herself reported the cause as being a phonological deficit.

The notion of 'poor teaching' was raised by both parent respondents. However, 7 respondents (from other stakeholder subgroups) explicitly stated that they did not believe that dyslexia was the result of poor teaching:

Disagree absolutely... it's not our fault some children struggle to read and write. It's something in their brain, poor connections that stop them. I think the label helps, there's a reason (Jack line 53-55).

Whilst not the cause, 2 respondents reported that they did believe that poor teaching could make matters worse for someone with dyslexia:

I definitely think you can make things worse for a learner who's got dyslexic ... tendencies, but I don't think they ... they arise as a result of ... of poor teaching (Zoe line 186-187, 189).

Concerns were raised by a number of respondents regarding the impact of the label and its subsequent usage:

Some individuals find it very easy to accept a label and hide behind it rather than being proactive and saying, 'I might not be dyslexic. I might actually just not be very good at this and I need to do something about it to get better' (Jayne line 241-243).

I think some use the label to their advantage – it becomes an excuse for some. I can't do that because I have dyslexia. Everyone has challenges which we can hide behind (Lyndsay line 73-75).

4.2.2 Research objective 2: Stakeholder perceptions of strengths and challenges

Whilst several of the attitudinal statements, relating to perceived strengths and challenges, received similar responses from all stakeholder groups, a number of the statements showed a greater level of variation between the sample groups. An overview of the calculation used to determine scores can be found in Appendix 26.

i) Strengths

Empathy

Parents displayed the most positive attitude towards the notion that those with dyslexia are more empathetic than trainee teachers without dyslexia, with 84% of all parents agreeing/strongly agreeing with this statement. This compares to 55.6% of ITE staff, agreeing/strongly agreeing, 53.1% of school staff and 43.8% of students. More school staff disagreed/strongly disagreed with this statement than any other stakeholder group, with 33.3% disagreeing/strongly disagreeing. Overall 52.8% of all stakeholders agreed/strongly agreed with this statement, 21.5% were neutral and 25.7% disagreed/strongly disagreed suggesting a positive attitude in relation to those with dyslexia having greater empathy than those without.

In Phase 2 of the data collection process, empathy was identified as a strength that people with dyslexia bring to the profession by 9 of the 11 respondents. Empathy was often linked to perceptions that the person with dyslexia must have struggled themselves, with learning, and so could use this to support others. For example:

They show empathy to those children who perhaps aren't ... erm ... maybe switched on or don't find abstract concepts easy to grasp because they themselves have experienced difficulty (Emily line 251-253).

Inclusivity

In terms of being more inclusive, at Phase 1, 34.1% of the total sample agreed/strongly agreed with this statement, 27.1% were neutral and 37.9% disagreed/strongly disagreed showing a slightly more negative attitude to this. However, there was variation amongst stakeholder groups. ITE students showed the least amount of agreement with this statement, with 28.1% agreeing/strongly agreeing compared to 64% of parents agreeing/strongly agreeing suggesting a positive attitude and agreement with the belief that those training to be teachers are more inclusive in their classroom practice than those who do not have dyslexia.

In Phase 2, 5 of the 11 respondents agreed that people with dyslexia, training to be teachers, are more likely to be inclusive in their own classroom practice:

Inclusive perhaps in the sense that, you know, as a dyslexic learner you may have been excluded from things in the past and therefore ... you're more passionate about making sure that ... all children have the same opportunities to access everything (Zoe line 335-340).

However, some respondents were at pains to suggest that this inclusivity would not extend to all children:

In terms of inclusive....I am not convinced this would be for all disabilities or SEN. I think if you are in similar shoes to someone else then you have a known a shared understanding but only for that disability so they might be more inclusive for those with dyslexia but not for those children in a wheel chair. It's not as simple as that (Lyndsay line 154-157).

Creativity

Overall, at Phase 1, a negative attitude was evident for the complete sample group with 42.5% disagreeing/strongly disagreeing with the statement that those with dyslexia are more creative than those without, 34.6% indicating a neutral attitude and 20.6% agreeing/strongly agreeing. Differences in stakeholder group attitudes towards people with dyslexia being more creative are evident. Parents agree most with this statement,

with 48% agreeing/strongly agreeing and just 16% disagreeing/strongly disagreeing. In comparison, only 11.2% of ITE students agreed/strongly agreed with 50.6% disagreeing/strongly disagreeing.

Over 50% of the interview respondents stated that they did believe someone with dyslexia is more likely to be creative in their classroom approach/learning strategies employed, than someone without dyslexia. The reasons underpinning this were often linked to the avoidance of text-based resources methods they may struggle with themselves or more explicitly as an avoidance tactic to mask inabilities:

Creative may be as if you're not good at reading and writing you will probably express yourself in a way that doesn't use words. Not sure if you would say that this is being creative....more like an avoidance strategy to me (Alice line 112-115).

No I don't think that people with dyslexia are more creative only in terms of avoidance strategies, to hide what they can't do (Stephen line 155-156).

4 respondents explicitly identified that there is not a causal link between having dyslexia and being creative or indeed more inclusive in terms of professional practice:

How do you know it is due to having dyslexia though? You can't ever know (Lyndsay line 161).

Ease of identification

At Phase 2, 5 of the 11 respondents identified that a potential strength of those with dyslexia, entering the teaching profession, was the ability to identify other learners with dyslexia more easily than teachers without dyslexia:

They might pick things as well like erm ... sort of signs and ... things that other teachers haven't quite seen because they thought, 'Actually, hang on. This ... this sounds familiar. This, you know, I've seen something like this, or I had something.' You know, especially when it's not a common symptom of what they had symptom of (Harriet line 251-254).

I suppose they might see the signs earlier too as they know what to look for having lived it themselves. You know it is like someone with an eating disorder, other anorexics know the tricks of deceit and what to look out for (Jack line 90-91).

Academic success

In relation to the statement 'People with dyslexia are less likely to meet the academic demands of a teaching degree than those without dyslexia' ITE students and ITE staff agreed least but parents and school staff agreed most with this. This was explored further in the interviews. Findings from the interviews reveal that all stakeholders interviewed could not identify challenges that may affect someone with dyslexia achieving less well academically other than time management/organisational issues.

Instead, the majority of the respondents suggested that due to the vast level and range of support available, through the use of support workers, proof readers, software and hardware, all of these mitigated any potential literacy issues and secured academic success. However, for some respondents, such as Stephen, this success at the university is problematic:

I think the over use of technology hides their issues academically and they can get much support like extra time and allowances for spelling errors at university. I think that is wrong on a teacher training course, this should not happen. I think this is why they are exposed in school. We can't give them as much support and the allowances. If you get it wrong, you are impacting on lives (Stephen line 233-238).

For some ITE staff no special allowances are made in terms of spellings and grammar in their written work:

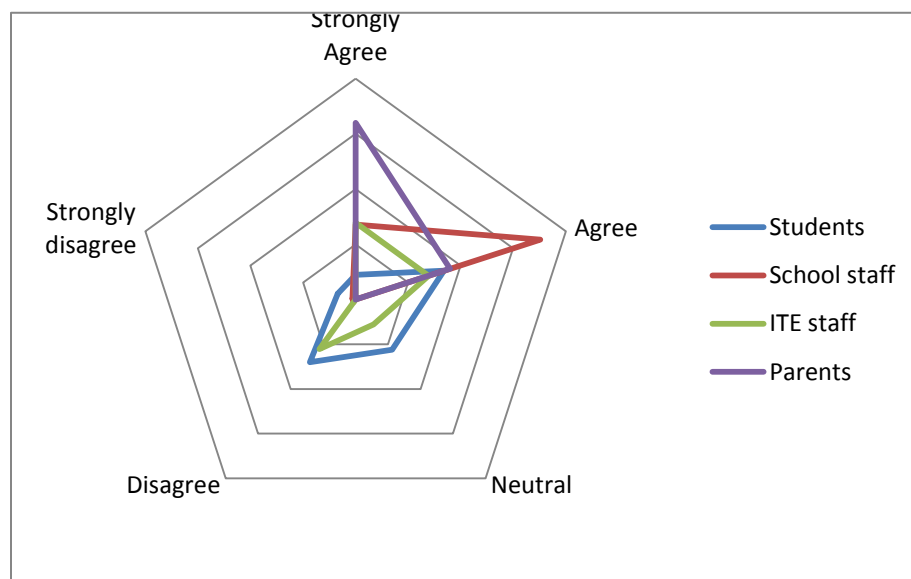
It is utterly ridiculous that students come onto our programmes aged twenty plus and say, 'Oh I only now know ... realise now that I'm dyslexic.' How is that possible? Utterly ridiculous! Like they've never written anything in nearly a quarter of a century? So I think that really needs looking at. I could not tell you which of my students were dyslexic and who aren't as I don't look, I mark their work. If they are on the programme they need to be able to write like anyone else (Emily 94-99).

ii) Deficits and challenges

Demands of the profession

72.4% of the total sample, at Phase 1, showed agreement with the statement that those with dyslexia will struggle to cope with the demands of the teaching profession, compared to their non-dyslexic counterparts. Parents, in particular agreed with this statement, with 100% agreeing/strongly agreeing, followed closely by 97.5% of school staff and 55.6% of ITE staff. A lower percentage of students agreed with this (accounting for 42.7% of all student responses) as shown in Figure 19.

Figure 19: Distribution of stakeholder responses against the statement, 'People with dyslexia will struggle to cope with the demands of the teaching profession'



This view was reiterated within the interviews, with 36.3% of interview respondents also suggesting that the demands of the teaching profession would concern them for someone with dyslexia. A theme emerging from the data was that of internal and external pressures. Lyndsay believes these pressures/demands come from external sources:

I think being in such a hard profession where it seems everyone is out there to criticise you, parents, LA inspectors, Ofsted puts huge amounts of pressure on anyone *let alone* those with a disability be it dyslexia or anything else. (line 129-131)

For Zoe, the demands lie with the new curriculum expectations in relation to literacy skills:

The demands of the profession in terms of . . . the requirement, you know, that the standard of your written and spoken English has to be so high, you know particularly, you know, even more so now the new National Curriculum, you know, in terms of standard English, it's rigorous erm . . . and I think that applies no matter whether you teach Nursery or Year 6 or higher (line 222-234).

Inability to teach given subjects and age phases

The belief that trainee teachers, with dyslexia, will struggle to teach reading and writing was upheld most by school staff, parents and ITE staff with 88.9%, 88% and 83.3% respectively agreeing/strongly agreeing with this statement. ITE students agreed least with this statement (34.8% disagreeing/strongly disagreeing and 46.1% agreeing/strongly agreeing). Overall 70.1% of the sample at Phase 1 showed agreement with this statement whilst 20.1% disagreed.

Based on this data, during the interviews, further questioning was employed to establish whether respondents believed particular subjects and/or age phases may prove more challenging for those with dyslexia compared to those without. 8 out of the 11 respondents (73%), at Phase 2, stated a belief that someone with dyslexia would struggle to teach children of a given age. For 2 respondents, this was children of any age, stating:

Personally, I don't think they should be teaching at all, regardless of age or subject. I mean, we are talking about lives and life chances here. If you get a bad teacher, one who doesn't know how to do their job then you could impact negatively on that child's life forever (Alice line 126-129).

You know, someone that's got [problems with] information processing, comprehension skills, that's going to affect anybody teaching at any age, isn't it? (Jayne line 394-395).

4 of the respondents, stating a concern, focussed their concerns on the teaching of younger children:

I think teaching the younger age ranges would be hard. With all the spellings and writing that needs to be done for SATs (Paul line 73-74).

I might be concerned about the teaching of phonics. It's very technical (Stephen line 160-161).

Conversely, for 2 respondents, teaching children in the older age ranges poses more of a concern:

The qualified teacher who has a diagnosis of dyslexia erm ... although she's in Key Phase 2 erm ... she's never considered for year 6 because erm ... I don't think ... I don't think it's felt she is ... she's capable of teaching Year 6 ... because she does experience quite significant difficulties with spelling, erm ... so ... grammar she's deliberately not put into that class (Zoe line 452-462).

I think it depends where you are on the spectrum. I'm not sure that someone with severe dyslexia would be good at teaching say...English at secondary school (Jack line 115-116).

For 2 respondents, the nature and severity of an individual's disability, influenced their perception of fitness to teach particular age ranges. In contrast, one respondent highlighted that if someone had overcome their own difficulties then teaching should not pose a problem.

In relation to subjects taught, a number of respondents highlighted that subjects perceived as being less text based would cause less of a concern, if being taught by someone with dyslexia. 3 respondents suggested that Art would be less problematic, 2 respondents stated PE, Mathematics was highlighted by respondent and Music another.

Level of support

There was agreement, within the total sample population, at Phase 1, that those with dyslexia will require more support within the classroom/on placement with 75.7% agreeing/strongly agreeing. School staff agreed most with this statement (93.8%) followed by parents (80%), ITE staff (66.7%) and students (60.7%)

These results were validated by the interview data which revealed that 7 respondents also (64%) highlighted that the level of support, someone with dyslexia entering the teaching profession, would need, was a potential concern. For example:

Teaching is hard enough without having weaknesses. It follows from that that erm... I think intensive support and monitoring would be needed. Not just for them in terms of standards but also their mental health – they are going to find it very pressured and if you struggle with poor organisation things could just get on top of them (Lyndsay line 82-86).

I think, from a practical point of view, you know, that they need a lot of extra help compared to someone without the label. I feel that it would take more energy to mentor a teacher with dyslexia than those without (Ellen line 309-311).

Issues with paperwork

6 respondents (55% of the interview sample) raised concerns about potential errors within paperwork, on the board, in children's books and how this might be perceived by various stakeholders within the school as a learning community:

They need someone with them quite a lot to boost their self-esteem ... to read through work; they need study advisors; they need support workers ... the worst case scenario they need help in school because they can't write things on boards, and therefore teaching assistants need to be briefed in order for them to support (Jayne line 212-222).

Home school link books could be an issue – one in correct spelling and there is criticism. Do you know how quickly the school gate gossip spreads. It's not fair to the individual, it's putting them at risk of major criticism too. It's not all one way risk. It's not easy to telling a member of staff that there have been complaints about their incorrect use of English (Stephen line 237-244).

Retention

Retention of teachers with dyslexia was identified by three respondents (27% of the total interview sample) as a concern. Underlying causes for lack of retention centred around the demands of the profession, from both internal and external influences and lack of funding/time for experienced staff to support:

Yes – they won't last. Because they are having to do things ... perhaps it is harder for them than others. erm ... and so ... and that's a shame erm ... I think that once you are qualified the support for somebody who is, well they're paid to do the job, diminishes because of budgetary constraints. The money ... any money around goes into different CPD that's driven often by the school improvement plan rather than the

personal professional development of staff ... The demise of the local authorities means there's less a (*sic*) range of resources for staff to draw from ... and the day to day challenge and pressures on teachers ... erm ... are hard enough without having that to battle with (Emily line 230-238).

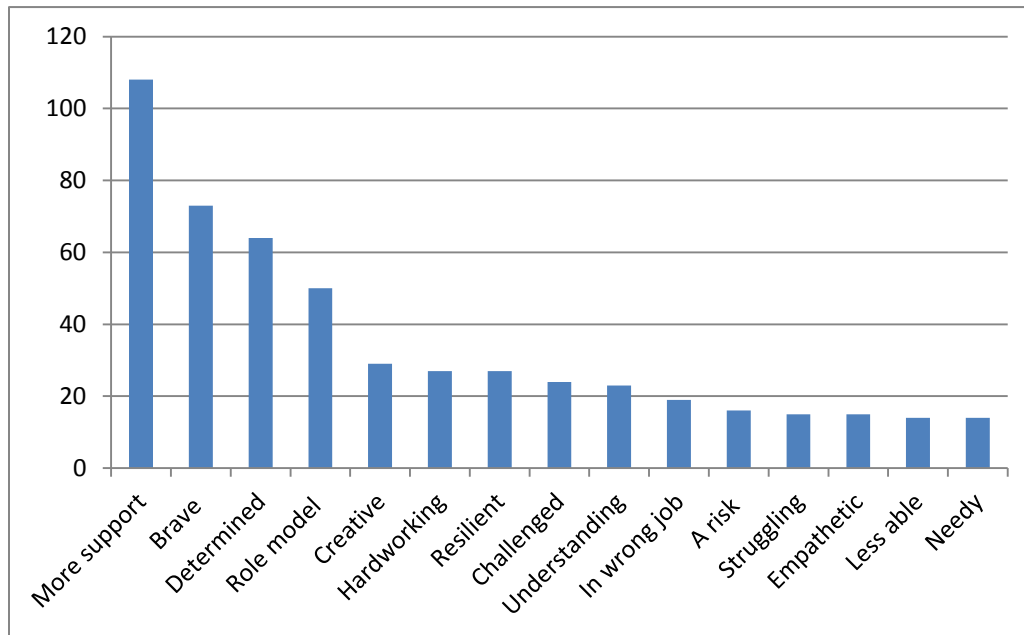
Retention is an issue for me. I would be concerned that they would not stay in the profession. I think being in such a hard profession where it seems everyone is out there to criticise you, parents, LA inspectors, Ofsted puts huge amounts of pressure on anyone *let alone* those with a disability be it dyslexia or anything else. Whilst on ITE courses support is there, student wellbeing, academic support, proof readers, counsellors, extended deadlines, extra time to complete the same task as others. This all equates to a huge amount of resources for those with the label. I am concerned that once students have qualified, unless you have an understanding boss the support will not be there. I can't really see a Head, Ofsted or indeed parents being so understanding for example if their child's reports are late compared to the rest of the school. I think it could put a strain on the school too and other members of the team (Lyndsay line 128-139).

Perceived characteristics of those with dyslexia training to be teachers

All participants, involved in both Phase 1 and 2 of the data collection process were asked to provide three words/phrases to describe a student, training to be a teacher, with dyslexia. Acquiring words people associated with those with dyslexia served to triangulate the identified strengths and challenges people with dyslexia may bring to the profession but also served to further establish whether stakeholders are negative or positive in their perceptions.

In all, 80 different words/phrases were used by the four sample groups to describe an ITE student with dyslexia (see Appendix 15), at Phase 1 of the data collection process. The top 15 terms/phrases are shown in the Figure 20.

Figure 20: Number of respondents identifying the top 15 words/phrases to describe someone with dyslexia training to be a teacher.



Support

108 different participants used phrases to describe someone with dyslexia as needing support/more support than their non-dyslexic counterparts. These findings triangulate/support those already discussed on p.141 and is, arguably, a negative feature associated with having dyslexia and training to be a teacher.

Bravery

Bravery was also deemed as a positive characteristic of those with dyslexia by questionnaire respondents. Again this triangulated in phase 2, with 50% of respondents of the interviews identifying this as a specific strength. The characteristic of being 'brave' was underpinned by varying reasons. For one respondent it was linked to the fear of parental complaints, implying that someone with dyslexia may be open to critique:

Brave, yeah, I think they are brave. I also know what parents can be like – any excuse to criticise you (Lyndsay line 97-98).

For the respondent, who disclosed having dyslexia herself, she described being brave due to the amount of support that she may need to draw on throughout her training:

Brave because I know I will struggle and need support (Wendy line 182-183).

For another, being brave emerged out of a belief that it would be difficult undertaking an occupation dependent on strong literacy skills:

The third one...erm....brave. I don't think I could do a job where I struggled with the basics (Paul line 48-49).

Determination

In support of the data from the questionnaire, 50% of Phase 2 respondents identified a characteristic of those with dyslexia as being 'determined'. This characteristic was often used within a comparative context - comparing someone without dyslexia training to be a teacher, to someone with dyslexia. Here, there was a perception that it must be more challenging to train as a teacher with a disability such as dyslexia:

I will say they are determined certainly. Training to be a teacher is hard for anyone but with a disability like dyslexia you have to be determined to get through it, not give up, draw on support it must be harder for those with dyslexia than those without (Jayne line 335-339).

And determined and committed because to have got to that point in ... in your academic or your professional career with ... with a learning difficulty like dyslexia, you must have to have lots of resilience ... and determination and commitment to achieve the goal that you set yourself (Zoe line 199-206).

Role model

At Phase 1, 50 participants used the term 'role model' to describe someone training to be a teacher, with dyslexia. The notion of being a role model was explored further in Phase 2 of the data collection process. Here there was a difference. Only 2 of the 11 interview respondents agreed outright with the notion that someone with dyslexia, training to be a teacher, is a role model. For the respondent who declared she has dyslexia, this was one of the reasons she stated that she entered the teaching profession.

For four of the interview respondents there are issues with the term role model. There was some negativity surrounding the discussion highlighted by Emily who suggested that those with dyslexia could be role models for the wrong reasons such as 'perpetuation of lower standards'. The belief here was that if children witnessed poor spelling and grammar, they would believe that this was accepted. For others, such as Lyndsay and Zoe, being a role model as a trainee teacher with dyslexia would rely on the trainee teacher being open about their dyslexia to the stakeholders and this, they believed is unlikely:

I still think parents and the criticism you receive would put many people of admitting to having a disability such as dyslexia (Lyndsay line 178-179).

I've never seen or heard of a practitioner be it a teacher, or a TSA or anybody else ... who is openly erm ... practising in ... with their students being in the knowledge that they have dyslexia or other learning difficulties erm ... I don't necessarily know whether we are in a place where people feel confident enough to be able to disclose that erm ... because perhaps because they feel it might undermine erm ... you know, people's thoughts about whether they're able to do their job properly (Zoe line 371-382).

For Emily, those with visible disabilities are more likely to be role models:

Things like the Invictus games and people who have lost limbs and physical disabilities...Anybody would look at those as being absolutely fantastic role models because of what they've achieved despite everything. Erm ... is that the same for something that is housed in academia and is assessed externally by HMI and Ofsted, and that is so high stakes because 30 odd children's futures are resting on your shoulders. Erm ... because you've got a point to prove? No (Line 293-303).

Other respondents, such as Zoe and Stephen questioned whether children see teachers as role models:

Are teachers role models for children as we see it or do other people have more influence like film stars, footballers? I don't think so (Zoe line 389-390).

I am not sure that any of the children in my school who have dyslexia would put their teacher at the top of the list of role models. No, sorry, I will ask them this though later but my betting is that it is someone famous who they see as a role model, not their teacher and not least if they know their teacher has dyslexia (Stephen line 80-84).

Over-arching themes

Several of the words/phrases used to describe someone with dyslexia, training to be a teacher, linked to the same theme/categories. As a result the raw data was categorised into eleven overarching themes/categories of linked phrases/words - see Table 4 .

Overall, 56.3% of all responses used by participants were deemed to relate to positive aspects of someone with dyslexia entering the teaching profession. Of the four sample subgroups, ITE students recorded the highest number of positive comments (58.9%) whereas ITE staff recorded the least amount of positive comments (27.8%). In comparison, overall, 43.7% of all words/phrases/statements used were deemed to be of an overtly, negative nature.

Table 4: Percentage of each of the sample groups who made reference to the same/similar phrase within a given theme/category at Phase 1

Theme	Students	% of student comments	School staff	% of School staff comments	ITE staff	% of ITE staff comments	Parents	% of parental comments	Total % of comments all sample groups
Positive work ethic	43	10.9	43	18.6	8	14.8	10	13.3	16.2
Positive traits/qualities	135	46.1	79	31.7	7	13.0	31	41.3	39.3
Perceived ability/competence (positive)	5	1.9	0	0.0	0	0.0	0	0.0	0.8
Negative traits/qualities	11	4.1	3	1.2	2	3.7	1	1.3	2.6
Perceived ability/competence (negative)	27	10.1	51	20.2	13	24.1	9	12.0	15.6
Support needed	31	5.6	43	14.8	17	31.5	17	22.7	16.8
Difficulties with literacy	18	6.8	2	0.8	5	9.3	0	0.0	3.9
Choice of career (negative)	0	0.0	22	8.2	2	3.7	7	9.3	4.8

Close examination of words/phrases regarding career choice, as shown in Appendix 15, reveal that 2% of school staff believe that ITE students, with dyslexia, are ‘misguided’, 3% believe that they are ‘in the wrong job’ and 1% believe that such students require further ‘career guidance’. 9.3% of all parents used phrases/words to suggest that they believe that people with dyslexia, training to be teachers, are ‘in the wrong job’.

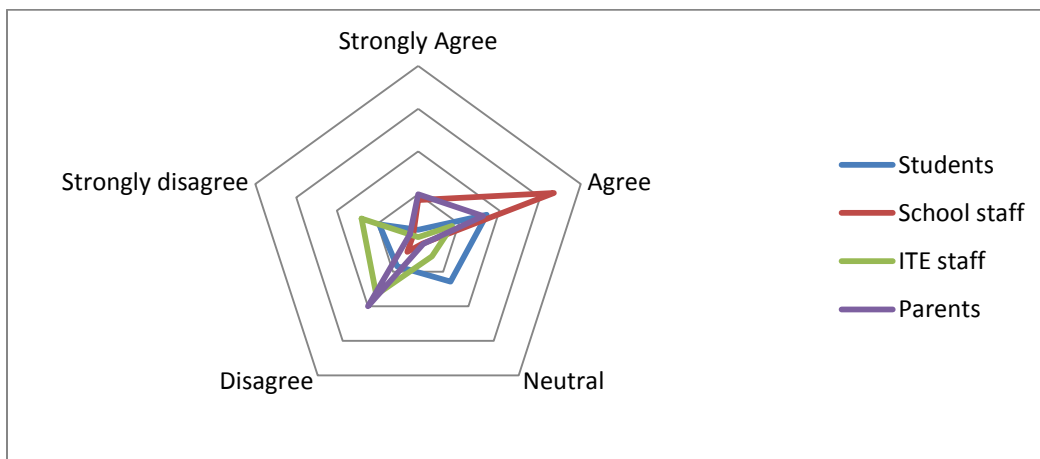
During Phase 2, participants were also asked to give phrases to describe someone without dyslexia entering the teaching profession. Here three key words emerged – altruistic, passionate and committed. Positive characteristics dominated responses during this phase with a clear absence of phrases relating to support needs, bravery, role model, being less able, a risk or choose the wrong career.

4.2.3 Research objective 3: Employability prospects

At Phase 1 of the data collection process, 54.7% of the total sample agreed/strongly agreed with the statement ‘If a person discloses, on an application form, that they have dyslexia this may decrease their chance of being invited to an interview’, 13.6% showed a neutral stance and 29.4% disagreed/strongly disagreed. Vast differences between stakeholders and their attitude towards employability were evident. School staff

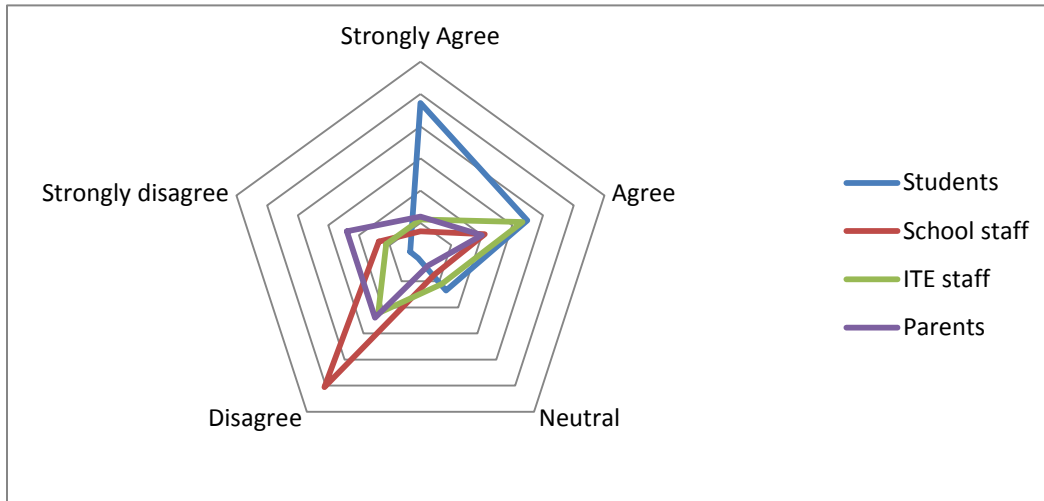
demonstrated the most negative attitude towards employability – with 84% in agreement, suggesting that chances of being invited to interview are weakened by disclosure. In contrast, ITE staff displayed the most positive attitude with only 16% showing agreement. Figure 21 shows a visual breakdown of stakeholder responses to this question.

Figure 21: Stakeholder distribution of Likert scale responses to the statement ‘If a person discloses, on an application form, that they have dyslexia, this may decrease their chance of being invited to an interview’.



Disagreement was also evident in relation to statement 16 ‘I would employ a person with dyslexia as a classroom teacher’ with 82% of ITE students agreeing/strongly agreeing but only 44.4% of ITE staff, 32% of parents and 28.4% of school staff. Essentially, 64.2% of school staff stated that they would not employ someone who disclosed having dyslexia, 48% of parents were also negative regarding employability, with 33.3% of ITE staff also agreeing that they would not employ someone with dyslexia in a teaching position. These differences in results are shown in Figure 22, on page 150.

Figure 22: Stakeholder distribution of Likert scale responses to the statement ‘I would employ a person with dyslexia as a classroom teacher’.



During Phase 2 of the data collection process, 8 of the 11 respondents, totalling 64% of the total sample, also stated, explicitly that they would not employ someone who had disclosed dyslexia on their application form, even though many of the respondents acknowledged that this would constitute an illegal act:

If one has a label with negative connotations then yes, it may well debar me. Gosh that sounds awful, its illegal isn't it? I could be charged (Lyndsay line 197-199).

An emerging theme underpinning such claims was that of risk, particularly in light of external pressures such as Ofsted and the potential impact on a school's rating:

Absolutely, 'cause they are a risk aren't they? A risk to literacy standards in the school. I know from my child's school that the pressures of Ofsted are huge, teachers always under pressure to be showing children are making progress. No, I think it would make a difference if the interview panel knew, it would to me (Alice line 170-174).

The demand for teaching positions was also cited:

I think some Heads might. I know a Head who basically said that she wondered how people with dyslexia even got onto our course. I couldn't believe it as she has a dyslexia friendly school – clearly not for the staff. Yeah, so I would be concerned as you don't know what heads are really thinking. I suppose when they have so many applying for the jobs they can be really choosy and someone with a known disability might be seen as a risk (Jack line 155-160).

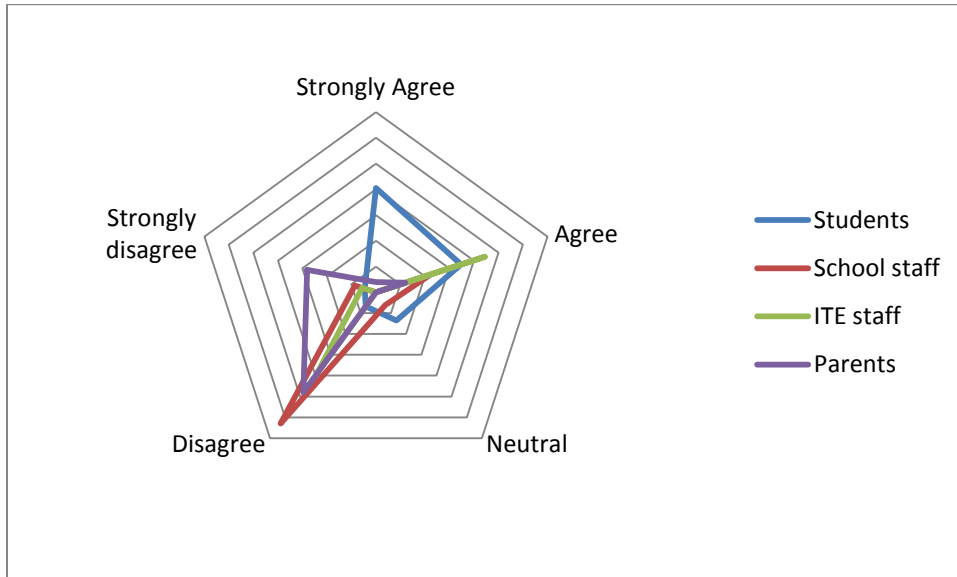
All 3 ITE students interviewed said they would employ someone who had disclosed dyslexia, if they were the best person for the job:

The best teacher. The label doesn't worry me but I have seen my friend in action and you really wouldn't know in the classroom that .she has it. Perhaps that makes me biased...I don't know (Jack line 153-155).

To triangulate the responses given to the statement about employability as a classroom teacher, participants were asked to respond to the statement, 'People with dyslexia should not enter the teaching profession'. The mode for the total sample population, at Phase 1, indicates disagreement with the statement overall however this masks differences in subgroups. 77.8% of school staff, 60% of parents, 56.7% of ITE staff and 11.2% of ITE students all agreed/strongly agreed with this statement. These scores are comparable and in line with the scores obtained for the statement regarding employability of someone with dyslexia showing a triangulated response.

The mode for ITE students showed agreement (and thus a positive attitude), with statement 10 'Parents should not be concerned if their child is being taught by someone with dyslexia', however the mode for school staff and parents was 'disagree' and 'strongly disagree' respectively. Expressed as a percentage, 71.6% of school staff displayed an overall negative attitude to this, stating disagreement/strong disagreement with the statement, 76% of all parents disagreed with the statement, again showing negativity and 44.4% of ITE staff also disagreed. In contrast, 75.3% of ITE students agreed/strongly agreed that parents should not be concerned. These differing results are clearly evidenced in Figure 23, on page 152.

Figure 23: Stakeholder distribution of Likert scale responses to the statement ‘Parents should not be concerned if their child is being taught by someone with dyslexia’



As a result of these questionnaire findings, parents, at Phase 2 of the data collection process were asked “As a parent can you describe how you would feel if someone with dyslexia was teaching your child/children?”

Both parent respondents displayed views indicating negative attitudes:

Not happy I can tell you. I am still surprised that you can teach when you might have a problem with basic literacy skills. How do they get on the course? I mean, the government talk about dropping standards in schools and education. Perhaps they need to think more carefully about who they are letting in. It should only be the best (Alice line 147-151).

Not sure about this. I suppose it depends on the quality of the teaching. If mistakes were being made in books and the like, I wouldn't be happy about it. I would prefer for someone to be teaching them who doesn't have it, if I am honest. It's a form of risk limitation (Paul line 88-91).

As can be seen from the two quotes, both parents indicated concerns related to standards in relation to literacy skills.

All groups reported to believe that there is still a stigma attached to dyslexia which may prevent people from gaining teaching posts with this statement gaining agreement from 74.8% of the total sample. Agreement with this statement was particularly the case for parents with 100% agreeing/strongly agreeing with this.

Spectrum of severity and entry into to the profession

The notion of a spectrum of severity, of dyslexia, emerged as a theme throughout several of the interviews which then served to influence the overall answer given to the question as to whether someone with dyslexia should enter the teaching profession.

Of the 11 respondents interviewed, 8 in total (73%) indicated those with 'severe' dyslexia should not enter the profession. A number of these respondents continued to state, however, that those at the 'mild' end of the dyslexia spectrum would not cause a concern to the profession. Reasons underlying the concern centred around notions of risk to standards – with a perceived negative impact on standards, the perceived lack of support in schools, to support those with severe challenges and concerns about parental complaints.

For 3 of these respondents (all ITE staff), the notion of screening was raised. Here there was the suggestion that there needs to be screening at the point of entry to establish severity of dyslexia and potential impact/ability to meet basic expectations of the role.

2 ITE students stated yes outright that people with dyslexia should enter the teaching profession. For one student respondent, it was not just those with dyslexia who should not enter the profession:

Yes [they should enter the profession] if not too severe but then no but there are much worse disabilities I mean like being blind. Could you imagine the issues with behaviour management and safety of the class. That would worry me. What about someone with bi-polar or mental illness like schizophrenia. They could turn on the children at any time and harm them. That would worry me more (Jack line 129-133).

Teaching was not the only profession identified as a potential concern. Professions within medicine (such as nurses, doctors, pharmacists and vets) were identified as a concern for 8 out of the 11 respondents. For 2 respondents, any job where there is an emphasis on literacy or numeracy skills, would cause them a concern.

However, 2 respondents stated that it depends on an individual's issues/difficulties as to which profession may be problematic. One respondent continued to state that many of the issues with literacy skills can now be mitigated through the use of technology.

Disclosure – support or stigmatisation?

i) Disclosure to placement school whilst on an ITE programme

Although there was agreement by all stakeholder groups, at Phase 1 that those training to teach, with dyslexia, should disclose their disability (with 78.5% agreeing/strongly agreeing), mixed responses were obtained in relation to the notion of disclosure to schools where ITE students were undertaking their professional placement, amongst the stakeholder groups during Phase 2 of the data collection process.

All 3 ITE staff reported students should disclose their dyslexia to their placement school but 2 stated that this was only if they had 'mild' dyslexia. Both parents stated that they believed students should disclose so that the necessary support could be put in place. All 3 school staff were cautious about disclosure due to the stigma attached, stating like Ellen, that not all staff would be supportive:

I'm aware that not all schools would be supportive or not all schools would be willing to accept that that person's dyslexia wasn't going to stop them from doing the job properly due to the stigma attached. I would be cautious about recommending disclosure (Ellen line 438-440).

2 of the ITE students said no to disclosure due to fear of parental concerns/complaints should the parents find out. As Wendy, a respondent with dyslexia stated:

I wanted it kept as quiet as possible as I know some parents can get funny (Wendy line 324).

In total, 5 respondents, 3 school staff and 2 students reported they would not advise disclosure. This represents 45% of the total sample.

ii) Disclosure on application form

Overall, 6 of the 11 respondents (55%) said they would not advise potential applicants for teaching positions to disclose their dyslexia on an application form. Key reasons given for advocating none disclosure centred around the perceived stigmatisation associated with the label of being dyslexic:

I would have some level of concern because I think there are negative associations with the label and in a culture of fear in teaching, when there are tens of applicants for one job, Heads don't need much of an excuse to put you in the no pile. So I would say, don't disclose it until you get the job...let them accept you for your ability as they see it at interview (Lyndsay line 203-207).

Other reasons linked to the perceived associated risks of employing someone with a disability. Indeed, one respondent, a Headteacher explicitly stated:

No...sorry...I know it is wrong...illegal really I suppose but no...I would not want to take the risk. That's the same with anyone with an issue that is known not just dyslexics (Stephen line 197-199).

iii) Disclosure of own disability – Phase 1 participants

The results show that there is variation, by stakeholders, in disclosure of their own disability. Out of the 9 school staff who declared a disability, at Phase 1, all of the staff disclosed their disability to their current line manager, family and friends. 5 of the school staff declared a disability to other staff within the school and to students who may work in their classrooms (e.g. on teaching placement or work experience). Those who declared their disability to wider school staff and students were those with epilepsy, arthritis and an unstated medical condition. Participants with dyslexia, depression and who were Bi-polar all stated that they have chosen not to disclose to others members of staff or students.

In terms of disclosure on an application form only 4 of the 9 participants said that they would disclose their disability. These were the participants who had disclosed epilepsy, an unstated medical condition and arthritis. The participants who are Bi-polar, have depression and have dyslexia all stated that they would not disclose their disability on an application form.

Those with dyslexia stated:

I would not disclose my disability to staff as I feel it would put me a disadvantage and they would see me as incapable or incompetent, therefore I don't want their judgement to be tainted by this label (Anonymous).

People will judge my competence as a teacher (Anonymous).

Those participants with a form of mental illness stated:

There is a stigma attached to mental health issues (Anonymous).

Certain held beliefs that people have about mental illness and the continual stigma this has in society (Anonymous).

This data appears to raise the question as to whether some disabilities are perceived as being more acceptable than others.

iv) Experiences of disclosure of dyslexia – supported or stigmatised?

The two school staff participants who disclosed having dyslexia, at Phase 1 of the data collection process, have had varying experiences relating to disclosure of their disability. Both have, currently, not disclosed to members of staff, within their current school, beyond their Headteacher. Both participants had experienced negative comments about their dyslexia in past employment with one participant stating:

In a past job I had parents complain to my Head about the standard of my written comments in books home. I realised my strategies were not working and so had to seek help from my Headteacher about these. They were supportive but told me I had to sort it!

Further examples of negative experiences were given in anecdotal stories given by Phase 2 respondents.

One student disclosed to a school in which she was placed and the Headteacher said “That is a shame what are you going to do now that you can’t teach?” (Lyndsay line 215-217).

However, both participants also reported receiving positive comments about their dyslexia in their previous employment too. One reported:

I had a parent tell me how great it had been for someone to understand what their child is going through. That made me realise I can help those with dyslexia, like me (Anonymous).

Neither participant had received positive or negative feedback from students. One had received negative comments from both family and friends, stating:

I have had both friends and family question my choice of career. They basically asked if I struggle to read and write how can I teach others? (Anonymous).

Both participants reported to have also received positive comments from family and friends.

Inclusive legislation

As the results from Phase 1 of the data collection process revealed negative attitudes, by some stakeholders, regarding whether or not they would employ someone with dyslexia, it was deemed necessary to establish whether participants had an awareness of equality legislation. Questions relating to inclusive legislation were only asked to Phase 2 participants as this need emerged from the data.

10 out of the 11 respondents were aware of the existence of some form of legislation to support those with disabilities, including dyslexia in the workplace/study. 7 of the stakeholders respondents named, explicitly, the Equality Act (2010). However, 5 of the respondents questioned whether schools actually enforce this legislation:

People with disabilities, including dyslexia are protected by law, in theory but I don't know who enforces it to make sure schools are implementing it. I've not heard of someone with dyslexia taking a school to court for not supporting them. (Wendy 667-670).

I know about the Equality Act in theory but can't say that I am convinced that all schools employ this in practice from some of the things I know and have heard about. I think the pressures of Ofsted and parents puts huge pressure on school to maintain standards and when staff are already under pressure they may find it hard to put reasonable adjustments in place for those with disabilities. I think it is about risk and schools will just stay clear (Lyndsay line 240-245).

Many of the respondents naming the Equality Act were also aware of the entitlement for 'reasonable adjustments' to be made to support someone with dyslexia training to be a teacher. However, 3 respondents suggested that they were unsure whether schools knew how to support/offer reasonable adjustments.

The Equality Act is in place. This is supposed to allow equality within the workforce to ensure those with disabilities are protected. I guess the issue here is how do you support someone who struggles with literacy in a job where high literacy skills are a requirement? It seems the Act is at odds with reality and the demands of the profession. We need to protect our children and standards (Stephen line 221-225).

It is this latter issue, of reasonable adjustments, that caused a number of associated concerns. For example, 3 respondents highlighted a potential tension between the legal requirement to make reasonable adjustments whilst also ensuring that the Teacher Standards (TDA 2012) were also being met. Confusion appears to surround what actually constitutes a 'reasonable adjustment':

I have a real issue with reasonable adjustments as in teaching these are unreasonable. If you can't spell or can't read aloud without lots of preparation, should you really be in teaching? You can't give teachers extra time to do this, as there is no extra time, their work life balance is already skewed. I am afraid the Equality Act does not translate into practice. People with severe dyslexia will struggle and this can impact on standards in the classroom (Emily line 454-459).

The Equality Act exists in law but I think you have to ask whether this is fit for purpose in professions such as teaching. We have professional standards and these need to be met, in the classroom, every day (Jayne line 631-633).

For Jayne there was a concern that by implementing reasonable adjustments, this may put more pressure on exiting members of staff, as Jayne continues:

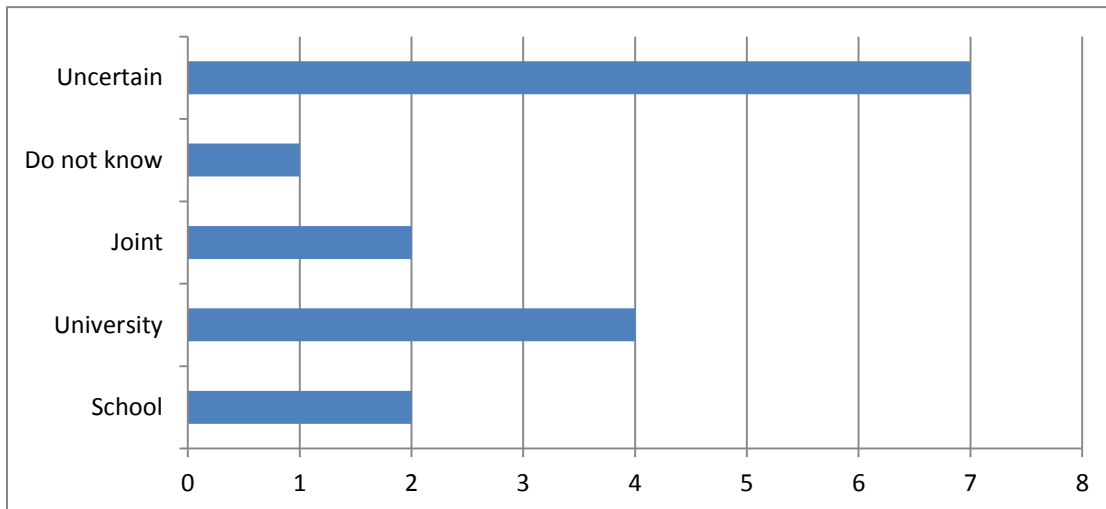
I am concerned about what constitutes a reasonable adjustment in teaching. Often, this just puts pressure on other members of staff. I know as I have ben that other member of staff. It is hard when you are carrying another person who is making errors all over the place (Jayne line 633- 636).

For one stakeholder, there was some uncertainty about being able to teach with dyslexia due to the nature of the disability:

Well, I didn't know you could teach with dyslexia so there must be a law saying you can but I'm not sure about that. You wouldn't want a blind pilot flying you on holiday would you? How can someone who struggles with basic English teach? (Alice line 177-180).

Responsibility relating to the enforcement of legislation also showed confusion amongst respondents, as highlighted in Figure 24.

Figure 24: Number of respondents identifying who has responsibility for implementation of legislation



4.3 Research objective 4: Possible factors influencing stakeholder attitudes to those with dyslexia training to be teachers

Analysis of attitudinal scores

Before proceeding to examine factors which may influence attitudes of stakeholders towards students with dyslexia training to be teachers, it is necessary to first establish the nature of attitudes displayed by the subgroups. An explanation of calculations employed to generate the following presentation of the overall attitudinal scores displayed by stakeholder subgroups is located in Appendix 26. Demographic data as presented on p.117-124 has been used to present further analysis.

Figure 25 shows that more students fall on the neutral to positive spectrum (83.3%) compared to the neutral to negative (16.3%). The mean ITE student score was calculated to be 60.8.

Figure 25: Bar graph of ITE student aggregate attitude scores

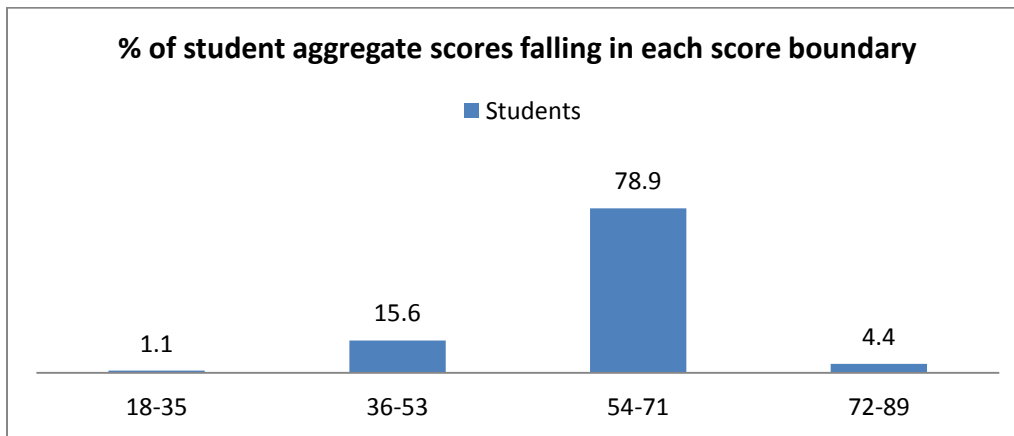


Figure 26 shows that 65.7% school staff achieved scores on the neutral to negative spectrum compared to 34.5% who fell on the neutral to positive spectrum. Most school staff attained scores between 36-53 with the mean score as 51.2.

Figure 26: Bar graph of school staff aggregate attitude scores

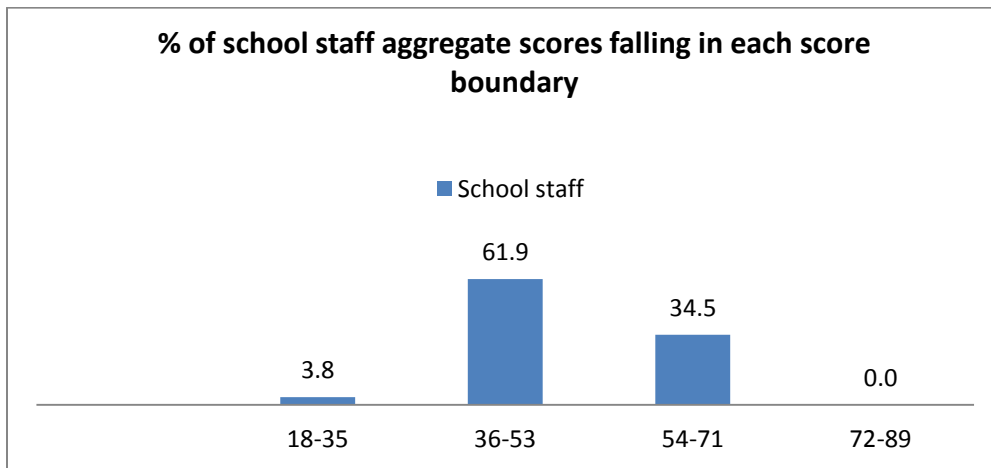


Figure 27 shows that 39.9%, of ITE staff, fall on the neutral to negative spectrum and 61.1% on the neutral to positive. The mean score was calculated to be 59 points.

Figure 27: Bar graph of ITE staff aggregate attitude scores

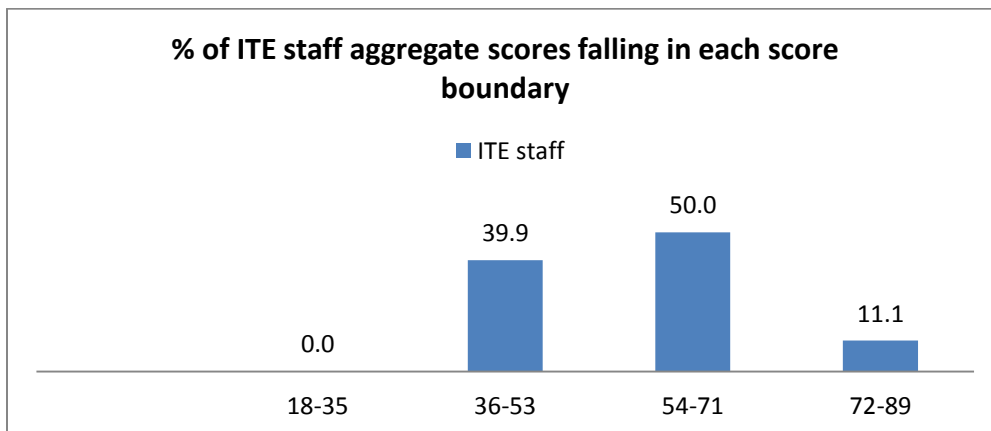
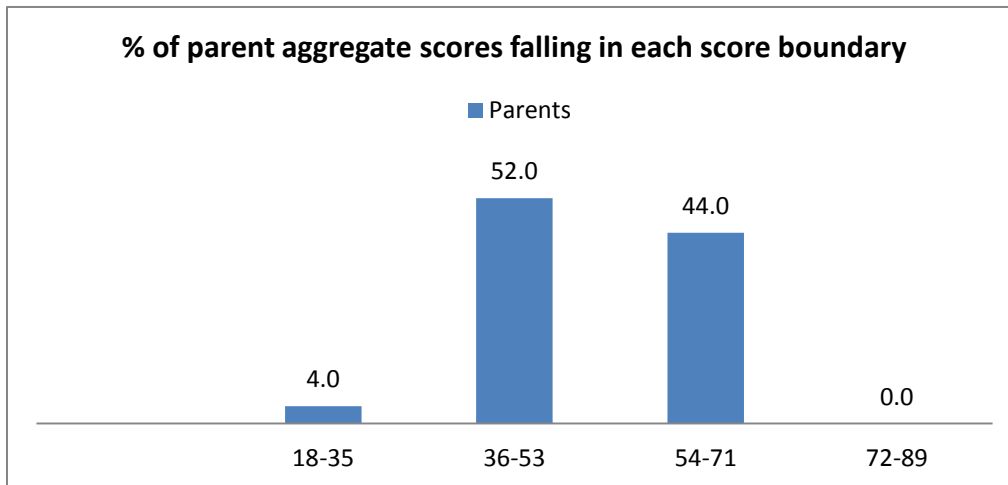


Figure 28 illustrates that 56% of parents fall on the neutral to negative spectrum and 44% fall on the neutral to positive spectrum. The parental sample group attained a mean score of 50.5

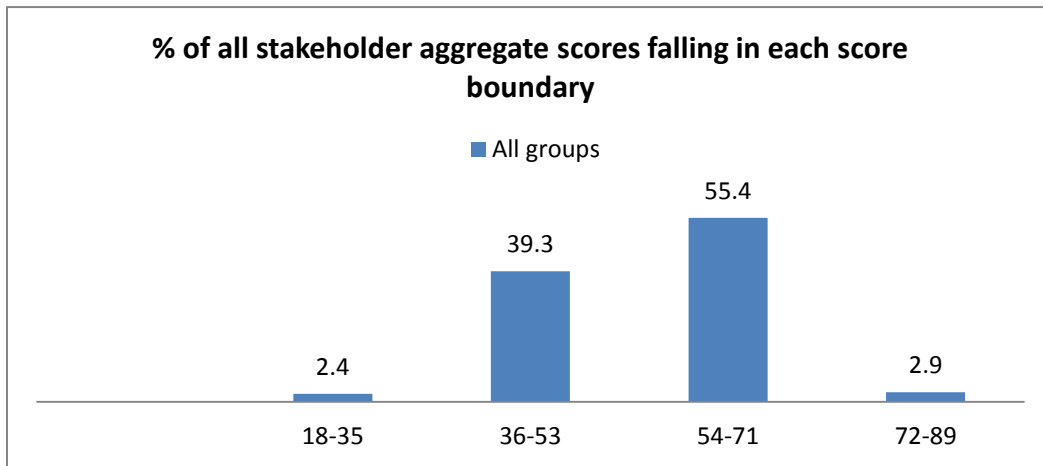
Figure 28: Bar graph of parent aggregate attitude scores



Total sample population

Figure 29, on page 164, indicates that, overall, 41.7% of the total sample attained scores that fell on the neutral to negative spectrum and 58.3% on the neutral to positive. Results for all the total sample population indicate an overall mean score of 55.4. However, these overall scores mask stark variations between responses to attitudinal statements and it is to these we must now turn.

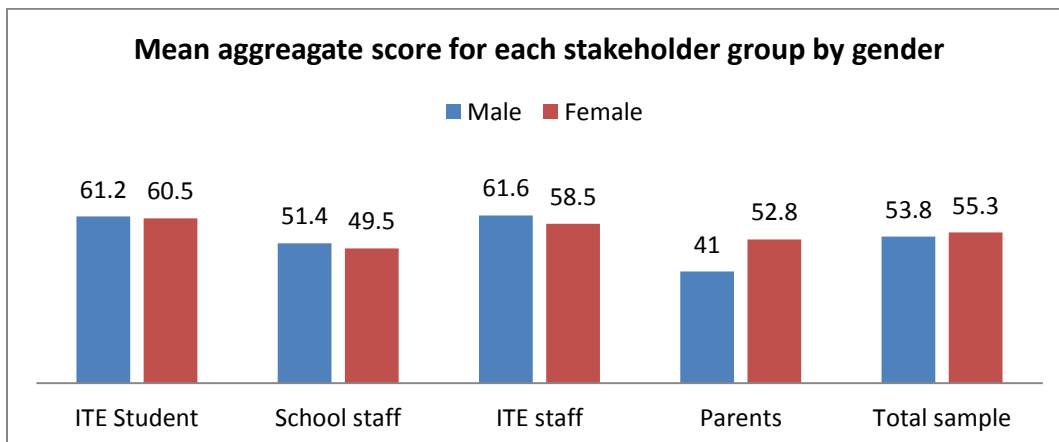
Figure 29: Percentage of stakeholders and overall aggregate attitude scores (in score brackets)



4.3.1 Gender and overall score

Figure 30 indicates that, for the total sample population, there is no significant difference in the overall, attitudinal score attained and gender of the participant - with just a 2.5 point difference between men and women.

Figure 30: Comparison of mean scores by gender and sample group.



4.3.2 Age and overall mean score

Table 5 shows the mean scores for each stakeholder group by age range. Overall, the trends, for the total sample population, suggest that those in 21-30 age bracket display the most positive attitudes and those who are 60+ years are the least positive.

Table 5: Comparison of mean scores by age and sample group.

Sample group	20 years and under	21-30 years	31-40 years	41-50 years	51-60 years	60+ years
ITE students	59.2	60.7	64.5	62.5		
School staff		55.3	55.3	56.6	52.0	41.0
ITE staff		61.4	61	51	56.5	
Parents		61.5	56.4	46.7		
Overall average	59.2	59.7	59.3	54.2	54.2	41.0

4.3.3 Current position of School staff and overall mean score

Table 6 shows that there is no trend with regard to seniority of position held in school and attitude expressed.

Table 6: Current position held in school by school staff and mean score

Head teacher	49.1
Deputy Head teacher	54.2
Assistant Head	55.8
Senior Leadership Team member and class teacher	52.7
Class teacher	49.5

4.3.4 Highest qualification and mean attitudinal score

The results from this research indicate that there is no clear relationship between the level of education of an individual (as shown through their highest qualification) and their overall attitudinal score towards those with dyslexia training to be primary teachers. More people with a PGCE displayed an attitude on the neutral to negative spectrum (52.7%) followed by those with 'O' Levels or GCSEs (45.6%) and then those with an Honours degree (35.8%). More respondents with a PhD (100%), a Certificate in Education (88.8%) and 'A' Levels (81.6%) displayed attitudes on the neutral to positive spectrum.

4.3.5 Comparison of overall mean score and previous contact with someone with dyslexia

An examination of the data shows that for ITE staff, no member scored between 18-35 points indicative of an overall negative attitude. The two participants scoring 72 and above, indicating a positive attitude, both reported knowing someone with dyslexia.

Of the 81 school staff, 2 achieved an overall score of 35 or less demonstrating a negative attitude. Of these 2 respondents, both reported having had previous experience with someone with dyslexia. No school staff scored 72 or higher indicative of an overall positive score.

1 ITE student fell into the overall negative attitude category. This participant did report knowing someone with dyslexia. Of the 4 students, who achieved an overall score of 72 or more, showing a positive attitude, 2 of these reported not knowing someone with dyslexia whilst 2 did not.

In terms of parent contact and mean scores, of the 25 parents, 3 displayed a negative attitude towards those with dyslexia training to be teachers, scoring 35 or less points. All 3 had not had previous experience/contact with someone with dyslexia. No parents scored 72 points or more indicative of a statistically positive attitude.

In the total sample, of the 6 respondents achieving an overall point score of less than 35, suggesting a negative attitude, 4 of these, equating to 67% did not have any previous experience/contact with someone with dyslexia compared to 33% who achieved lower score but who did report previous contact. Of those 6 respondents who achieved a score of 72 points or more, indicating a positive attitude 33% reported as not knowing someone with dyslexia whilst 67% did showing a reverse trend.

4.3.6 The influence of previous experience on attitude displayed

All interview respondents were asked about contact with someone with dyslexia and the frequency of this contact. This was discussed on p.127-129. Those respondents interviewed within the ITE staff and School staff were also asked to detail their experiences/contact, within their given roles.

Three positive experiences were reported by stakeholders, in relation to the given question. Positive experiences described included identification of individuals who were prepared and organised when teaching, drawing on a range of strategies to mitigate the aspects of dyslexia with which they struggled:

They had word banks; they had spellings already on the board ...they've worked with TAs so that if anybody was annotating ... wanted something annotating she'd direct the teaching assistant everything was kind of pre-planned. It was kind of like a military operation ... she know what her issues were; she identified them; she found a way round them; ... erm ... I ... that ... that was clearly something that kind of worked in school and actually, to a certain extent, I don't think the school really recognised some of her needs (Jayne line 446-456).

For others, strengths linked to skills/attributes such as creativity and inclusivity:

The closest (to a positive experience) I got was a lad in the first couple of years of working at the university who was exactly what I just spoke (*sic*) about in terms of being creative and the 'can do' approach and the inclusivity and the, you know, not denial of his own dyslexic tendencies (Emily line 374-377).

She's gone on to have a role around special needs and she's got a great deal of empathy for children ... who experience any kind of difficulty. She's very creative. Her classroom is just amazing (Zoe line 500-502).

Eight negative experiences were detailed by respondents. A number of these linked to issues of poor literacy skills and lack of use of strategies to overcome them:

I've had schools not wanting a student to go back because what they'd written in the books was poorly spelt (Jayne line 459-460).

They were just so bad at spelling and struggled to teach phonics that they needed so much input it was tiring. With the first student I had a number of complaints from teachers due to the written comments in the home school link and homework books. I have to say, when I read them myself I was shocked. I don't know if it's over reliance on technology but it seemed this particular students just didn't seem able to use a dictionary to check her own spellings. She was so bad (Stephen line 92-98).

Issues around parental complaints were also cited as linking to the negative experiences:

Yes and I'm afraid I have and it's all overwhelmingly negative. Wrote in books in an infant school, went home, parents complained 'What is this hand writing, spelling, it's appalling,' and it was correcting purportedly a child's work. This was an outstanding nursery (Emily line 359-365).

Yes and erm I'm afraid some of it is negative. I have had a phone call from a head. They had complaints about spellings in a home school link book. Parents came into school to complain (Lyndsay line 210-213).

Two of the respondents, highlighted concerns raised with regard to the admission process and those with dyslexia, undertaking ITE programmes:

I did question the university as to how she got onto the course in the first place (Stephen line 97-98).

I got a phone call asking how we could let anyone onto the course who has dyslexia. The school did not take any further students from us (Lyndsay line 213-215).

Negative attitudes were reported by a number of respondents in relation to known views of others involved in the training of ITE students:

I also know that one student disclosed to a school in which she was placed and the Headteacher said “That is a shame what are you going to do now that you can’t teach”. The school terminated her placement. The ironic thing about this example is that the school was a dyslexia friendly school – clearly only for the children and not the staff (Lyndsay line 215-219).

The Headteacher’s response was, ‘Well, what are you going to do? You can’t teach; you’re dyslexic.’ (Emily line 369-370).

4.3.7 Comparison of definitions and overall mean attitudinal score

An examination was undertaken of those scoring 35 or below as a mean point score and definitions these respondents provided of dyslexia. This allowed an investigation to establish whether there was any link between the complexity of the definition provided and the overall attitude displayed.

Definitions provided by the 6 participants achieving a score of 35 points or below reveal that, on average they identified 3.4 features of dyslexia. The 6 participants displaying outright positive attitudes, scoring 72 or above, identified 2.1 features of dyslexia. In this study, more features of dyslexia were identified by those displaying negative attitudes than positive.

4.3.8 'Dyslexia Friendly School' Status

During the interviews with school staff it became apparent that all three Headteachers worked at schools with 'Dyslexia Friendly Status'. The level of 'Dyslexia Friendly Status' varied from Level 1 (2 Headteachers) to Full Status (1 Headteacher). The Headteachers working at schools with Level 1 status both stated, explicitly, that they would not employ someone with dyslexia as a classroom teacher. A difference between the needs of children and staff was evident:

You see, the school has Dyslexia Friendly Status as I want every child and parent to know that we are doing our best for that child but I think the strategies we employ work for all children not just those with the label. Teaching children with dyslexia is different to employing someone with dyslexia. The former is good publicity, the latter brings negative (Ellen line 559-562).

4.4 Chapter summary

Much data has been presented to illuminate the research aim and in response to the initial research objectives. Where possible, the triangulation of findings from Phase 1 and Phase 2 of the data collection process has been highlighted. However, to support this comparison, an overview of the key findings, linked to each of the research objectives, is presented in Table 7 on p.171-174. Key themes have emerged from both data sets. An overview of these key words and themes is located in Appendix 20 and 21. A discussion of these findings in light of literature will be presented in the proceeding chapter.

Table 7: Overview of key findings from Stages 1 and 2, linked to each research objective

Research objective 1: <i>To investigate understanding and awareness of dyslexia displayed by stakeholders involved in ITE</i>	
Questionnaires	Interviews
<ul style="list-style-type: none"> • Majority of all definitions used phrases such as dyslexia is 'a learning difficulty' or dyslexia 'is a problem with' indicating a deficit model. • Top 5 deficits identified: reading, spelling, writing, visual processing and memory. • Most of the total sample knew someone with dyslexia. Parents are the least likely subgroup to know someone. • Those knowing someone are most likely to have a friend with dyslexia with weekly, daily or monthly contact. 	<ul style="list-style-type: none"> • 90.9% of all definitions used phrases such as dyslexia is 'a learning difficulty' or dyslexia 'is a problem with' indicating a deficit model. • Top 5 deficits identified: reading, spelling, organisation, memory and writing • Usefulness of the term questioned due to being so wide/vague. • Most of sample knew someone with dyslexia. Parents were the least likely subgroup to know someone. • Those knowing someone are most likely to know a child or student with dyslexia with weekly, daily or monthly contact. • No post qualification teaching staff had received any training about dyslexia as part of their ITE course All existing student participants had received training • 100% respondents suggest this is a new term replacing traditional labels such as poor speller. • Three main causes gives: Medical – issues with brain development or genetic factors. Social construction – a need to label to explain problems encountered and to gain access to resources. Environmental – poor teaching/new pedagogies.

Research objective 2: To identify strengths and challenges that stakeholder's believe ITE students with dyslexia bring to/face in the teaching profession

Questionnaires	Interviews
<ul style="list-style-type: none"> • Empathy seen as a key strength that those with dyslexia bring to the profession. • There was an almost equal divide between those who agreed that those with dyslexia were more inclusive and those who did not agree with this. • Most respondents disagreed that people with dyslexia more creative. • Most believed that those with dyslexia would not struggle to meet the academic demands of their training. • A majority believe that they will struggle with the demands of the teaching profession. • A majority stated that someone with dyslexia would need more support in teaching than someone without dyslexia. • The top 5 key words used to describe someone with dyslexia entering teaching were support, brave, determined, role model and hardworking. • Overall, the statistics indicate that across all four stakeholder groups, 56% of all words/phrases used to describe a person with dyslexia, training to be a teacher, are positive in their nature however 44% are negative. 	<ul style="list-style-type: none"> • Empathy was linked to perceptions that the person with dyslexia must have struggled themselves, with learning, and so could use this to support others. • Nearly half of all respondents did think those with dyslexia are more inclusive in their practice however this did not extend to all types of inclusion, only the inclusion of those with dyslexia. • Most respondents did believe those with dyslexia are more creative but that this was to mask inadequacies with text and so was seen negatively rather than as a positive. • Nearly half of the sample thought that those with dyslexia would be able to identify other dyslexics more easily than teachers without dyslexia. • Most believed that those with dyslexia would not struggle to meet the academic demands of their training but that universities offer too much support which cannot be replicated in the work setting. • Meeting the demands of the profession are a concern in light of Ofsted, parents and the new curriculum/higher standards. • Most participants believe that those with dyslexia will struggle to each particular age groups and subjects. • A majority stated that someone with dyslexia would need more support in teaching than someone without dyslexia Issues with completing paperwork accurately were raised • Retention following qualification was raised as a concern due to the removal of many of the support mechanisms afforded by universities. • Participants agreed that someone with dyslexia entering teaching was brave and determined but disagreed they were role models.

Research objective 3: To establish whether stakeholders perceive there to be a difference in the employability prospects of an ITE student disclosing dyslexia, as a primary classroom teacher, compared to their non-dyslexic peers.

Questionnaires	Interviews
<ul style="list-style-type: none"> • Over half the total sample agreed that employability prospects were weakened by disclosure of dyslexia. School staff agreed most with this. • The majority of school staff and nearly half of parents stated they would not employ someone who disclosed having dyslexia. • A majority of ITE staff, school staff and parents all agreed that those with dyslexia should not enter the teaching profession. • A majority of ITE staff, school staff and parents all agreed that parents should be concerned if their child was being taught by someone with dyslexia. • Disclosure of dyslexia recommended 	<ul style="list-style-type: none"> • Most participants stated disclosure of dyslexia would negatively impact upon employability. • Most participants stated they would not employ someone who disclosed having dyslexia. • Parents agreed that they would be concerned if their child was being taught by someone with dyslexia. • Those deemed to be at the 'severe' end of a spectrum of dyslexia were seen to be unsuitable for the teaching profession by the majority of interview participants. Those seen to have 'mild' dyslexia were not seen as much as a threat. Those with severe dyslexia seen as a threat to standards, cause parental complaints and could be damaging to Ofsted outcomes. • Screening during admissions processed seen as a necessity. • Purpose of disclosure highlighted by some as a sifting tool. • Most advocated non-disclosure due to the stigma attached to dyslexia. • Knowledge of inclusive legislation not seen as a deterrent for non-employability of those disclosing dyslexia. Lack of enforcement of the equality act and ease of finding other reasons not to interview/employ someone. • Reasonable adjustments seen as unreasonable in teaching. • Confusion about responsibility for reasonable adjustments and lack of knowledge of how to support someone with dyslexia was evident. • Essentially, those with dyslexia perceived as more demanding (time and resources) and putting pressure on other staff.

<p>Research objective 4: <i>To investigate whether attitudes expressed by stakeholders, towards someone with dyslexia training to be a primary classroom teacher, are influenced by given factors.</i></p>
<p>Gender – for the total sample population, no significant differences exist in attitudinal mean score</p>
<p>Age - Overall, the trends, for the total sample population, suggest that those in 21-30 age bracket display the most positive attitudes and the oldest participants are the least positive with those aged 60+years scoring just 41 points.</p>
<p>Highest qualification – This research shows that there are no overt trends evident in the level of education (as shown by their highest level of qualification) and their overall attitudinal score. The findings show a mix set of results with more people with a PGCE being negative than any other group.</p>
<p>Exposure/contact – The majority of questionnaire participants scoring a negative attitudinal measure did not have any experience/contact of someone with dyslexia. The majority of those scoring positive attitudinal score did have contact/did know someone with dyslexia. Suggesting a positive trend towards exposure.</p> <p>Interview participants, who knew someone with dyslexia working within the teaching profession, reported more negative experiences than positive experiences.</p>
<p>Current position in school - Head teachers are the least positive members of school staff who responded to the questionnaire, followed closely by Class teachers. Assistant Head teachers are the most positive.</p>
<p>Understanding of dyslexia - Those with a negative attitudinal measure identified more characteristics of dyslexia in their definitions than those who with a positive attitudinal score.</p>

Chapter 5 – Discussion

As highlighted in previous chapters, the aim of this WBP is to explore stakeholder attitudes towards those students, with dyslexia, training to be primary teachers. Four research objectives were used to guide the direction of the research undertaken, based on literature previously read and the awareness of gaps within the existing knowledge base. These were namely:

- 1. To investigate understanding and awareness of dyslexia displayed by stakeholders involved in ITE.*
- 2. To identify strengths and challenges that stakeholder's believe ITE students with dyslexia bring to/face in the teaching profession.*
- 3. To establish whether stakeholders perceive there to be a difference in the employability prospects of an ITE student disclosing dyslexia, as a primary classroom teacher, compared to their non-dyslexic peers.*
- 4. To investigate whether attitudes expressed by stakeholders, towards someone with dyslexia training to be a primary classroom teacher, are influenced by given factors.*

The aim of this chapter is to revisit these research objectives in light of the findings detailed in Chapter 4 and literature used to inform the literature review, and ultimately, the conceptual framework (p.58). Essentially, I will establish whether the findings of this research refute, support or, most importantly, adds new knowledge in light of previous research. In order to ensure that this completed in a systematic and structured way, each of the research objectives will now be considered in turn, linking to the themes that emerged.

5.1 Dyslexia spells trouble - understanding and awareness of dyslexia

Previous research has shown that there has been lack of a shared understanding of dyslexia which has resulted in confusion about its characteristics and indeed its very existence (Elliott, 2008). For Mortimore (2008) this has been unhelpful for those with dyslexia, parents and professionals working within the field, breeding misinformation and misunderstanding. In support of the work of Mortimore (2008), Hammill (1990) and Rice and Brooks (2004), this study also found that there remains a vast array of different definitions provided by professionals working within the field of education (more specifically ITE staff, Headteachers and classroom staff) as well as amongst students studying on ITE programmes and parents.

Whilst Hammill (1990) classified 43 definitions of dyslexia, in this research 32 different key words/phrases permeated the definitions provided by the respondents of the questionnaires. However, despite differences between these definitions, commonalities do exist between the definitions provided. Primarily, definitions are dominated by deficits, weaknesses and challenges. An assumption implied within the definitions is that those with dyslexia are a group of people with a range of 'problems' which are departures from what is considered to be the norm. To this end, 'normal' people can employ literacy skills with relative ease and fluency, whereas those with dyslexia cannot (Herrington and Hunter-Carsch, 2001). Linking to the medical model of disability, this puts an emphasis on the individual as failing to learn, in single or multiple aspects of literacy, which then has consequences in terms of their perceived employability within the teaching profession.

The definitions provided by respondents in this study, support the work of Michail (2010) who found in her examination of definitions, that all included a reading deficit and many included a spelling deficit, essential skills needed to be a successful classroom practitioner. These two characteristics were in the top five characteristics identified by those involved in both phases of the data collection process.

However, the definitions in this study refute Michail's findings in relation to further characteristics as no respondent included reference to an age discrepancy or IQ deficiency. Where any reference has been made to IQ, this is to imply that there are no links to IQ and that dyslexia does not impact on an individual's level of intelligence, as measured by IQ.

For Snowling (2004), who asserts that those with dyslexia have issues with short-term memory, this is supported by this research and the number of respondents who recognised this as a potential area of difficulty. Whilst less commonly known, issues linked to the visual theory of dyslexia were also acknowledged by a number of respondents who identified that for those with dyslexia, words can often appear to move around the page. The origins of these characteristics can be traced back to the earlier works of Kussmual (1877), Hinshelwood (1895) and Orton (1925).

An examination of the definitions provided, for dyslexia, by the different stakeholders, highlights that none of the definitions provided were exclusionist or discrepancy in nature. Although they appear to be more in line with the descriptive definitions presented by the BDA (2007) and Rose (2009), it is arguable that the majority of definitions presented were about deficits thus leading to the generation of definitions based on negative skill/traits/competencies. Furthermore, the definitions in this study were rather limited with each yielding, on average, only 2.8 characteristics compared to the five characteristics identified in the definition presented by the BDA (2007) and the 10 (including co-occurring difficulties) identified in the definition presented by Rose (2009). Unlike the BDA (2007) definition which included reference to potential strategies to mitigate these difficulties no definition provided, in this research, made mention to these.

Despite variance in the key characteristics identified by participants in this study, there is a common belief that dyslexia does indeed exist, thus in parts refuting Elliott's (2008) claim of the 'dyslexic myth'. However, supporting Stanovich (1994) and Elliott (2008), the usefulness of existing definitions, as presented by the DBA (2007) and Rose (2009) have been questioned due to their broad nature and vagaries. As a result, some participants, such as Stephen, suggested, the label has become so wide, most individuals could be labelled as having a degree of dyslexia.

In support of Elliott (2008), several participants in Phase 2 of the data collection process raised explicit concerns about access to and use of the 'dyslexic' label suggesting that the label is 'bought' by those with the financial resources to pay for private educational psychologists/private testing. On entering HE, possession of the label then serves a purpose - to gain access to a wealth of support whilst studying on academic programmes. However, this research indicates that for some employers, this level of support is damaging as it creates a false sense of security that those with dyslexia can cope with the demands and expectations of the teaching profession, when such structured and intense support mechanisms are removed.

It has also been shown that disclosing the disability, whilst advantageous in gaining access to academic resources and support, it is damaging if disclosed and used when applying for employment within the teaching profession. With the Data Protection Act (1998), protecting issues of disability from being disclosed, without permission, to third parties, this may lead to a situation where those with dyslexia can cherry pick when to use the label and when not. In support of Stanovich (1994) and Elliott (2008), this creates a divide in which those without the label, but with difficulties in aspects of literacy, are put at a disadvantage.

A spectrum of severity

Like Rack (2009), a spectrum of dyslexia has been identified, in this present study, with respondents recognising that dyslexia is a complex issue, which can be multi-faceted, with no person with dyslexia being the same. This spectrum of severity has informed the attitudes of respondents when questioned about potential employability and disclosure. Emerging from the data is the belief that those with 'severe; dyslexia should not enter the teaching profession whilst those with 'mild' dyslexia' are more suitable. Further discussion about the perceived spectrum of dyslexia and how this impacts on employability prospects and the call for a screening process can be found on p.195.

Models of disability

Two models of disability are intertwined in discussions and definitions of dyslexia. These are the medical and social models. The findings of this present study suggest that the majority of definitions presented by participants adhere to the medical model of disability.

A number of respondents attributed the cause of dyslexia to the medical model of disability, highlighting biological reasons such as abnormal brain development (Nicholson and Fawcett 1990) or genetic factors (Stein, 2001 Schulte-Korne *et al*, 2006). The hereditary nature of dyslexia, as identified by Reid (2009) and Hall (2009) was also highlighted by Zoe and Jack. Whilst Stonovach and Siegal (1994) suggest that phonological processing is the dominant theory for dyslexia, specific issues with phonological processing was only identified by two participants. Shaywitz and Shaywitz (2005) suggest that those with dyslexia struggle to segment, decode and blend words thus resulting in reading difficulties. This research suggests that whilst people may recognise, in broadest terms, that people with dyslexia may struggle with reading and spelling skills, they are not aware of the reasons as to why they may experience these difficulties, showing a more basic understanding. Further study could seek to explore this in more detail.

In contrast, for Stephen, Emily and Lyndsay, the term dyslexia is a social construction. For these respondents the construction of the label 'dyslexia' serves to meet the needs of the more privileged in society who are in need of a medical label to explain poor academic performance (Shakespeare and Watson, 2002; Elliott and Pace, 2004). For Emily, this is not confined to 'dyslexia' alone, drawing parallels with the term 'Attention Deficit Hyperactivity Disorder to explain 'naughty' children.

Linking to Frith's (1999) causal model of dyslexia, environmental factors such as poor teaching was identified by Emily, Alice and Paul as a potential factor in the creation of dyslexia. Current pedagogy and the use of 'modern methods' of teaching, at the expense of traditional rote learning, are deemed to be in need of review as their rise has been seen to coincide with an "explosion of people who can't spell" (Paul line 25). Such beliefs mirror those of Stringer who asserts that dyslexia is a 'cruel fiction' that should be consigned to the 'dustbin of history' (BBC News, 2009), with dyslexia being the result of improper pedagogy. However, for Alice the issue of dyslexia and poor teaching is linked directly to entrants into the profession with low literacy skills. Here the need to employ "the highest skilled people teaching our children" (Alice line 58) is seen as imperative. For Riddick and English (2006), such a claim is misguided, as little evidence exists to support the claim that students with dyslexia are less competent than their non-dyslexic peers.

The rise of a modern label

Although previous studies have illustrated that dyslexia is not a recent phenomenon, with its characteristics being noted since the work of Orton (1925), interview data confirms that the term 'dyslexia' is one which is perceived by participants, in this present study, as a term which has gained in popularity over recent decades. For all respondents questioned, dyslexia was not a term that they could recall from their own childhood. Over half of the interview respondents further stated that they believe that there has been a shift in the terminology used. Historically, for these participants labels such as 'poor readers' and 'poor spellers' were used whereas today it is asserted that

such children are be labelled under the umbrella term of 'being dyslexic' or having 'dyslexic tendencies'. Although not stated explicitly, implied within some discussions is the notion that there is a link between dyslexia and those who have lower ability, with dyslexia now used to describe "kids who were once labelled as stupid or thick" (Paul line 18). However, dyslexia transcends all levels of intelligence and occurs at similar rates in all countries and cultures where written literacy is given high status (BDA, 2007).

The belief expressed by respondents that the numbers of those labelled as having dyslexia, has exploded, is, arguably, supported by Grove (2014) who estimates that the number of students, with dyslexia, has increased 22 fold between 1994-2013 thus making it the most common of all disabilities.

The impact of training on stakeholder understanding and awareness of dyslexia

Turning here to potential influences on awareness of dyslexia, this research has highlighted that many of those respondents who are already qualified and have been teaching for some time, did not receive any specific dyslexia training as part of their original ITE studies. It is arguable that limited knowledge of dyslexia, its causes and characteristics stem from lack of pre and in-service training, and, as Price and Gail (2004) concluded, ignorance can often explain negative attitudes. This suggests that further awareness training is required. This need for further training is supported by the British Dyslexia Association (BDA) which has commented that self-help is no substitute for specialist training on these matters (BDA, 2013). However, such a view is refuted by Oliver (1993) who posits that much evidence exists to suggest that awareness training is ineffective in changing attitudes.

The lack of pre/in-service training of existing ITE and school staff appears to contrast to current ITE students who all state that they have received explicit dyslexia awareness training as part of their ITE courses. However, this is potentially the result of the ethos and commitment of the ITE programme, they attend, to developing awareness of

dyslexia, rather than any legal requirement for their ITE courses to do so. The British Dyslexia Association (BDA) has long been campaigning for ITE courses to teach explicit sessions on dyslexia with the aim of raising awareness, with the BDA petitioning the Government to have specific dyslexia training as part of the 2012 Teaching Standards. However, in response to the petition, the Government has stated:

It would be inappropriate for the Government to mandate ITT providers to deliver any particular sessions (BDA, 2013).

5.2 Stakeholder perceptions of strengths and challenges

5.2.1 Strengths

Empathy

Empathy was the most frequent positive trait identified by respondents that those with dyslexia bring to the teaching profession. Investigation as to why respondents believed those with dyslexia may be more empathetic, compared to someone without a disability, revealed a belief that this empathy was borne out of similarity of experience. Due to the likelihood of having experienced challenges in their own learning/education, this, respondents believed, would make it more likely that someone with dyslexia would be more empathetic to children with dyslexia than teachers who were do not have dyslexia.

Such a view is supported by Morgan and Rooney (1997) who concluded that, teachers with dyslexia have the advantage of understanding their own strengths and weaknesses as learners and are, subsequently, more empathetic and patient as classroom practitioners. Similarly, the work of Burns and Bell (2011), which focused on the development of the identities of teachers with dyslexia, concluded that these teachers felt that they understood the barriers to achievement that their pupils had undergone and their own feelings of exclusion, thus having an advantage over their non-dyslexic counterparts. This then raises the question as to whether empathy is something which can only be developed through direct experience or whether it can be facilitated via other means; furthermore, are there differences in a person's propensity to develop

empathy for others (Davis, 1990)? It is my own belief that we do not have to have lived someone's experience in order to be empathetic towards them. Resonating with what is going on in the subjective world of another person, empathy can be seen as a state of mind where one puts oneself in the shoes of another person. Whilst an observer may not have experienced the same situation/event, they can imagine what it may be like for that person. To be empathetic your own value judgements, with regard to an event/situation, need to be suspended. By suspending judgement, this allows you to see things from someone else's perspective even if you do not agree with it.

In this current study, it was stressed that this empathy may not extend to all children with all disabilities, only those specifically with dyslexia, this implies a 'lived experience'. Additional concerns were raised by one respondent who equated being empathetic with lower expectations. The implication here was that teachers with dyslexia used the label as an excuse to accept lower standards of work from children, perpetuating a self-fulfilling prophecy of 'I am dyslexic therefore it is acceptable for me to make mistakes'. The notion that those with dyslexia, in the teaching profession, have lower expectations of children with disabilities, as expressed by Jayne, lacks empirical underpinning (Riddick, 2010). Indeed, Duquettes (2000) concluded, from observations, of those on teaching practice, that there was no evidence of lower expectations.

Overall, it is believed that that a consequence of increased empathy is a more supportive and inclusive classroom environment (Duquette 2000; Morgan and Rooney, 1997; Riddick, 2003).

Inclusivity

At Phase 1 of the data collection process, more parents agreed with the statement that someone with dyslexia would be more inclusive in their classroom practice than someone without. The stakeholder group showing the least agreement with this statement was the ITE student group. The results of the interviews revealed that over 50% of respondents believed that someone with dyslexia would be more inclusive in

their practice. However, again, as with empathy, several respondents were at pains to suggest that this inclusivity would not extend to all children as inclusive education is a wide remit encompassing gender, social class, as well as those children with disabilities (Humphrey, Bartolo, Ale, Calleja, Hofsaess, Janikova, Mol Lous, Vilkiene, Wetso, 2006). Knowing how to promote inclusion, within the primary classroom, for children with dyslexia was not seen as extending to having a working knowledge on how to promote inclusion for children with alternative disabilities such as being physically disabled.

Embedded within the responses of those who agree that people with dyslexia are more inclusive in terms of classroom practice, is the belief that people with dyslexia have experienced a range of both successful and unsuccessful strategies that they can draw upon, thus ensuring that they employ a range of inclusive strategies within their own teaching. This supports the work of Morgan and Rooney (1997) who also found that teachers with dyslexia can tap into their own individual learning styles and can use these to support their own pedagogy/practice, particularly to support learners experiencing difficulties. This concurs with the participants of Riddick's (2010) study, with dyslexia, who stated that they believed that having dyslexia gave them an insight to a using a range of learning strategies.

Creativity

Schloss (1999), Riddick and English (2006), Attree *et al* (2009) concluded that those with dyslexia display creative abilities, which, potentially, are seen by prospective employers as being an attractive quality. However, we need to question here, which type of employer? Linking to Gardner's theory of multiple intelligences (1983), Attree *et al* (2009) assert that people with reading difficulties, including dyslexia, have superior visual-spatial abilities which may explain their creative talents. Similarly, for Wolf and Lundberg (2002) creative and artistic talents may represent "compensation contributing to the evolutionary resistance of dyslexic genes" (2002, p.36). Here, superior visual-spatial abilities compensate for deficits in other forms of intelligences - predominantly verbal-linguistic. Such a view is also supported by the work of Eleni, Filippou and

Panagiota (2013). In a study of 117 secondary school students, Eleni *et al* (2013) concluded that students with dyslexia, whilst showing higher visual-spatial ability, exhibited deficits in their linguistic skills compared to non-dyslexic peers. This raises a concern in relation to the teaching profession. Whilst someone with dyslexia may possess creative/spatial talents, teaching is categorised as a verbal-linguistic occupation. If studies, such as Eleni *et al* (2013), conclude that those with dyslexia have creative talents to compensate lower linguistic ability, it has to be questioned whether teaching is indeed a suitable occupation for individuals with dyslexia. Whilst Attree *et al* (2009) assert that creative abilities are attractive to employers, it is arguable that it may be only certain types of employer to whom they may be attractive- namely those who work within visual/spatial domains such as architects, designers and programmers.

This present study found that although the majority of respondents, at both stages of the data collection process, did state that they believed that people with dyslexia were more creative than their non-dyslexic counterparts, this was not always associated with positivity. A number of respondents, at Phase 2 of the data collection process, suggested that the creativity of those with dyslexia stemmed from the need to mask poor literacy skills and issues with their own competency in reading and writing through the avoidance of text heavy resources. For potential employers, in this study, creativity is seen as a cause for concern rather than a strength. As a result, people with strong verbal-linguistic skills, which align more to the responsibilities and demands of the teaching profession, are more attractive to employers than those with 'creative' talents.

Ease of identification

A key positive skill assigned to those with dyslexia was that of ease of identification of dyslexia. Here this is the belief that those with dyslexia are more likely to identify a child, with dyslexic tendencies, in their own class. Reasons given for this perceived ease of identification is due to the ability to draw comparisons between their own

difficulties and literacy behaviours and that of others. However, no existing research exists which supports or refutes such claims.

5.2.2 Challenges/concerns

Demands of the profession

All stakeholders in this study agreed with the statement that people with dyslexia, training to be teachers, will struggle with the demands of the profession however students agreed least with this statement compared to any other stakeholder group. It is here that a consideration of professional knowledge may be of worth. Professional knowledge in the sphere of teaching is multifaceted and includes pedagogic, subject and curriculum knowledge, knowledge of learners, educational contexts, educational aims and the tacit knowledge of working in the field, gained through direct experience in a given field as well as through personal contact and observation (Capel, Leask, and Turner, 2013).

For particular stakeholders involved in this study – namely ITE staff, School staff (who have lived the demands of teaching) as well as parents who have experience of the demands as a stakeholder involved in their child’s education, it is arguable that, in support of the work of Dickson (2007), these stakeholders have a greater understanding of the professional knowledge relevant to teaching whereas those just embarking on their ITE courses may have a more limited understanding of the demands of the teaching profession, as they have not yet been completely immersed in it and do not have the full responsibility of the class. This is not to say that trainee teachers have no professional knowledge of the demands of the profession, indeed as Torff (1999, p.195) asserts, teachers begin their training with a “tacit and intuitive” notion of pedagogy arising from two sources – innate predispositions, and folk psychology, the way we learn about teaching and learning through our culture.

Interview responses revealed an insight as to what different stakeholders perceive as constituting the 'demands' of teaching. Here the links to professional knowledge, based on stakeholder role, is evident. For ITE staff and school staff much discussion centred around notions of external pressures and the emotional and psychological demands that the perceptions and influence of others can have on teachers. These external pressures often included reference to inspectors (Ofsted and LA) and were linked to the need to maintain standards. Demands of the expectations of the new curriculum were identified due to the increase in literacy expectations and standards of written and spoken English. ITE staff and school staff also highlighted concerns over paperwork and the demands of the profession in ensuring paperwork is accurate and completed by deadlines. This linked into parental pressures and potential complaints, which were also identified by parent stakeholders.

Teaching – subjects and age phases

Following the initial findings, from the questionnaires, that concerns were raised about the ability of someone with dyslexia to teach reading and writing (with school staff, ITE staff and parents all showing agreement that someone with dyslexia would struggle to teach reading and writing), stakeholder attitudes concerning the potential suitability or unsuitability, of someone with dyslexia, to teach particular ages and subjects were investigated further. Such an investigation has not yet been undertaken by other authors. The present study has revealed new knowledge relating to concerns about the ability to teach children of different ages.

No consensus was evident in the age range that stakeholders believed someone with dyslexia would find more difficult to teach. For two respondents, people with dyslexia should not enter the teaching profession at all, due to the perceived lack of literacy skills. For some, there was a belief that they would struggle to teach either those at the earlier stages of development (due to the emphasis on phonics) or those at the older age of the spectrum (due to the advanced technicality and language used in texts). This research has also highlighted that some subjects are perceived as being more

suitable for someone with dyslexia to teach, than others. Those seen to be more appropriate were secondary Music, Art, PE and Mathematics. Principally, stakeholders viewed these subjects as being less text rich and thus more appropriate for those with difficulties in literacy.

Level of support

As concluded in research by Morgan and Burn (2000), the perceived extra level of support, someone with dyslexia would need, in the classroom, was a key negative characteristic identified by all stakeholders in both stages of the data collection process. Supporting the work of Griffiths (2011), it is believed that this additional support may create a burden on other staff within the school, thus increasing the workload of others.

A significant finding in this research centres upon the perceived unrealistic levels of support that universities afford students, with dyslexia, and how this does not translate into the workplace. A number of stakeholders, expressed concern regarding transition from university/teacher training programmes to employment and the impact that this may have on retention. School staff reported that due to a number of factors, including budgetary constraints, those with dyslexia could not be afforded the same level of support and 'protection' (Stephen, line 203) that they are given whilst at university, to ensure success.

Arising from this is a moral and ethical tension, that whilst university ITE programmes put in place a number of support systems, driven by the Equality Act (2010) and PSED (2011), ultimately, this support is perceived as setting students, with dyslexia, up to fail and leave the profession. This raises the question, whether or not students training to be teachers, with dyslexia, should be given extra levels of support through the use of 'reasonable adjustments' considering that schools are unlikely to provide these once qualified. Despite extra support, through the implementation of reasonable adjustments, being a legal right, there appears to be a discrepancy between legal entitlement and actual provision within school settings.

Teaching is a demanding career and as such individuals must take responsibility for the identification of their own strengths and weaknesses. With regard to the latter, all students should be supported in the identification and implementation of strategies that can be used to mitigate these areas of development but, as ITE professionals, we also have a duty to ensure that students, with and without disabilities, who are struggling to meet the professional Teachers' standards, are aware of their own limitations. Through the development of a reflective stance, as advocated by Schon (1983), those entering the teaching profession must be taught to understand when their desire to become a primary teacher is not matched by their ability to be so.

Issues with paperwork

Issues with paperwork was a key concern for those involved in Phase 2 of the data collection process. In line with potential challenges identified by Southampton University in their document, 'Supporting Dyslexic Trainees and Teachers', issues were raised with regard to levels of competency when writing in home-school link books, letters home, marking and report writing. Of major concern was how such errors would be viewed by different stakeholders involved in the school community, predominantly parents. In short, such errors should simply not arise. The Teachers' Standards (2012) require all teachers to demonstrate competency in their use of spoken and written English. Spelling errors within key documentation should be viewed as unacceptable practice – all teachers, with or without dyslexia, have a responsibility to model high expectations and standards. Someone with dyslexia, or known spelling difficulties, entering the teaching profession, should employ secure strategies to ensure such errors are avoided. If this is not the case, they are failing to meet the minimum standards as detailed by the TDA (2012) and employers should not be afraid to raise their concerns.

Retention

Concerns regarding the retention of people with dyslexia, in the teaching profession, were expressed by a number of interview respondents. These concerns link to issues previously detailed such as the demands of the profession and the perceived lack of

support for those with dyslexia once they qualify. Evident within the responses is the notion that there is a disparity of support afforded between universities, whilst someone is training to be a teacher, and the academic side of their ITE programme, and the support that can be given whilst undertaking the practical, professional placement and following qualification. Lack of understanding of other staff and budgetary constraints also come to the fore. However, previous research and statistics are not available to investigate whether these stakeholder concerns are valid or not.

5.3 Employability of someone disclosing dyslexia, as a primary classroom teacher

An emerging theme that linked to the research objective regarding stakeholder attitudes towards the employability of those with dyslexia in the teaching profession was that of disclosure.

To disclose or not to disclose?

Research undertaken by Blankfield (2001) concluded that a fear of discrimination prevented many nurses from disclosing their dyslexia, both pre and post nursing registration. Morris and Turnball (2006), again researching in the sphere of nursing, also concluded that nurses on professional placement were reluctant to disclose their dyslexia to mentors due to fear of ridicule, empathy, apathy and misunderstanding of their needs. Similarly, in the realm of ITE, Riddick (2003) and Beverton *et al* (2008) claim that it is the fear of stigmatisation and discrimination that results in non-disclosure of dyslexia on ITE applications.

Findings from this research conclude that there are mixed responses as to whether someone, as a student training to be a teacher, with dyslexia should disclose their disability to their placement school. At Phase 1 of the data collection process, the total sample population had a mode of 4.0, thus agreeing that students training to be a teacher should disclose their dyslexia to their placement school however, those involved with Phase 2 of the data collection process showed some disagreement with this. In

essence, several factors appear to surround whether to disclose or not. One factor identified is that of the severity of someone's dyslexia. In support of the work of Rack (2009), there is agreement that there is a spectrum of severity of dyslexia. For those individuals at the less severe or 'mild' end of the spectrum, respondents advise non-disclosure as this is deemed to be little different from someone who is a 'poor speller'. However, for those with more severe dyslexia, disclosure was advised to ensure that the necessary support could be put in place to best ensure success. A second factor surrounds the perceived 'stigmatisation' associated with dyslexia, as identified by Riddick (2003). For some respondents dyslexia is associated with negativity, deficit and inability. Intertwined with this is the influence of the perceptions of others, such as other teaching staff and parents, who may question someone's ability to be successful in the role of class teacher.

There were differences in the stakeholder groups advocating disclosure/non-disclosure. Parents and ITE staff advocated disclosure to a student's placement school however school staff and ITE students appeared to be more reticent and nervous about disclosure. For school staff this reticence concerns itself with a perceived stigmatisation associated with the label of dyslexia, thus supporting the work of Beverton *et al* (2008). For the ITE student stakeholder group, nondisclosure was advocated due to fear of parental complaints and the associated misunderstanding of their disability (Morris and Turnbull, 2006).

With regard to disclosure on an application form, the majority of respondents, from all subgroups, said that they would advise someone with dyslexia not to disclose their disability on a job application form. This is a significant finding considering the existence of equality legislation. Again, as with disclosure to staff on professional placement, the key reason for nondisclosure on an application form centred around potential stigmatisation. Other reasons underpinning nondisclosure highlighted the perceived risks of employing someone with a disability as highlighted by Beverton *et al* (2008).

Of particular interest here, are the findings generated from the questionnaire data in relation to those participants who disclosed having a diagnosed disability. Of those respondents with a disability, over 50% stated that they would not and have not disclosed their disability on an application form, for a teaching post. All of these participants had disabilities relating to mental health issues or dyslexia and linked their non-disclosure to stigmatisation and the negative perceptions of others with regards to their competency. Considering the findings of Furnham and Pendred (1983) who concluded that people held more negative attitudes towards those with mental disabilities and Staniland (2009), who concluded that people viewed disabled people as less-able than non-disabled people, it appears that the concerns of the participants in this study are justifiable. Those participants with physical disabilities, such as arthritis, all stated that they would and have disclosed their disability. Yuker and Block (1979) concluded from their research that there was a hierarchy of acceptability with regard to disability. The findings from this present study concur that some disabilities are deemed as more socially acceptable, with regard to obtaining teaching positions, than others suggesting that there is negativity and stigmatisation associated not only with dyslexia but also mental health. This is supported by the claims of participants within this study.

The experiences of those with dyslexia, who have previously disclosed their disability, add further weight to the belief that stigmatisation and prejudice is real and a lived experience (DRC, 2004). These experiences are supported by Lyndsay who recalls an incident where a student, who on disclosure of her dyslexia was asked what she was going to do, considering she could no longer teach.

Employability – Can't spell, can't teach?

The Equality Act (2010) serves to protect those with disabilities from unlawful discrimination as well as ensuring that reasonable adjustments are implemented to mitigate any characteristics of a disability that might put them at a disadvantage, compared to a non-disabled person. Despite the existence this legislation, this research has found that there remains a reluctance to employ someone who has disclosed

dyslexia as a disability. 65% of all school staff stated that they would not employ someone with dyslexia, as a classroom teacher, 48% of all parents said they would not and 33.3% of all ITE staff stated no. These initial findings were verified at Phase 2 of the data collection process, where 64% of the total sample stated they would not employ someone with dyslexia as a classroom teacher. These findings support previous research by Hurstfield *et al*, (2004) and the DRC (2004; 2007) into the employability of disabled people which concluded that disabled individuals are underrepresented in the public sector.

Those in positions of authority, with the power to employ stated admitted that they would not employ someone with dyslexia, even though they acknowledged that this was an illegal act, for which they could be prosecuted. Themes emerging in relation to this reluctance to employ included the perceived risk associated with employing someone with a disability, usually linked to pressures of external factors such as Ofsted and parents.

At the heart of the argument for non-employment of someone with dyslexia, in the teaching profession, also lies the notion of standards. Indeed as Griffiths (2011) concluded, a standards approach to education has perpetuated attitudinal barriers against those with disabilities such as dyslexia. This present research extends these findings by suggesting that not only does the standards approach to education cause negative attitudes towards those with dyslexia entering the profession, it actually prevents them from doing so, with some Headteachers stating that they would find reasons to avoid inviting such candidates to interview.

Such a view was expressed by nearly all stakeholder groups in this study at Phase 2 of the data collection process. Negative attitudes towards employability were expressed by school staff, ITE staff and parents. The ITE students interviewed were the only stakeholder group which stated that they would not let disclosure of dyslexia impact on the employability of a candidate. Similar findings were generated via the questionnaire,

again with the ITE students displaying a more positive attitude and school staff displaying the least positive attitude. It may be argued that ITE students, as they are not yet fully cognisant of the demands of the profession, are unconsciously incompetent at judging whether someone with such a disability could cope with the demands of the profession. Essentially, they do not possess the full breadth of professional knowledge needed to make an informed decision (Dickson, 2007).

Concerns about standards in education have been long debated. The introduction of the National Literacy Strategy in 1998 was done so, arguably, due to evidence that literacy standards in the UK were below those of other European countries. However, there is little evidence that despite such strategies that literacy skills have improved, rather, as Fraser (1997), concluded, it is individual teachers who make the difference, not the scheme implemented. Subsequently, it could be argued that it is the quality of literacy tuition/teaching that is most important and influential in terms of the development of literacy skills for children. However, such a view is contested by Riddick and English (2006) who claim that there is no research available that makes the link between teachers' own literacy standards and the standards of the children that they teach.

Alongside media claims of decreasing literacy standards in our schools (Crowley, 2003), it is arguable that it should be no surprise then that there is concern surrounding those with perceived deficits, in their own literacy skills, teaching children. For Alice, a parent respondent, the possession of basic literacy skills/competencies is a key requirement to enter the teaching profession. Other respondents identified the technicality of the English language, suggesting that those with limited literacy skills, should not enter the profession as this could impact negatively on standards of English and the attainment of children. This extends the work of Riddick (2003) and Beverton *et al* (2008) who suggested that this may be the case but did not investigate this as part of their own research.

Again, we see here the importance of the notion of a spectrum of severity and its potential impact on employability. At Phase 2 of the data collection process it became clear that those deemed to be 'at the 'severe' end of the dyslexic spectrum should not enter the teaching profession due to the negative impact they could have on the standard of literacy being taught; lack of support that can be afforded, by schools, to those with severe challenges in their own literacy skills; and the lack of protection against external pressures such as complaints from parents.

Screening – a spectrum of acceptance?

The desire for a screening process, to establish someone's severity of dyslexia, emerged as a theme throughout the interviews. The current QTS skills tests were questioned with regard to their relevance in allowing admissions teams to establish someone's fitness to teach. For ITE staff, in particular, new tests are needed which allow a more in-depth examination of some of the basic competencies needed to teach in a primary classroom.

Concerns about those with dyslexia were not confined to the teaching profession alone. A further finding emerging from this research suggests that respondents were worried about people with dyslexia entering other professions. Major concerns were raised for those entering the medical profession, as nurses, doctors, pharmacists or veterinary surgeons. The possibility of human error when writing or reading prescriptions was the key factor underlying such concerns supporting the work of Sanderson-Mann and Candless (2005).

The role of legislation and inclusive policy

Following the results of the questionnaire, which indicated that ITE staff, parents and school staff all scored lower in terms of their agreement of the statement that 'I would employ a person, with dyslexia, as a classroom teacher', than ITE students, and the subsequent interview data which indicated that 64% of the interview respondents would not employ someone who had disclosed this on their application form, it was deemed

appropriate to explore the link between behaviours indicated in the data collection process and the existing legislation. This was deemed ever more of a prominent line of inquiry considering that the Equality Act (2010) illegalises such behaviours. Are people unaware of equality legislation or are they blatantly flaunting it? If it is the former, this would serve to inform the recommendations of this research in terms of developing awareness of legislation through training. If it was the latter, then it was necessary to aim to investigate why individuals expressed an openness in, potentially, committing an illegal act.

The results of the interview question which specifically asked all respondents if they were aware of current inclusive legislation revealed that all but one of the respondents, were aware of the existence of some form of legislation to promote inclusion and equality supporting the findings of the DRC (2004). Whilst not all respondents could name the actual pieces of legislation all, who were aware of its existence, could explain that such legislation did exist and its underlying purpose. Of the ten respondents who did acknowledge the existence of such legislation, seven clearly identified the Equality Act (2010) showing an awareness of the most recent legislation.

However, many of the respondents showing an awareness of the legislation called into question its very enforcement. A range of stakeholders raised the question of whether schools do enforce the legislation and questioned the monitoring of its enforcement. A number of respondents suggested that, whilst they are in positions of authority and have the power to employ or not employ someone, they would choose not to invite someone to interview who had disclosed a disability such as dyslexia, as there is no sense of fear of reprisal from lack of enforcement of the legislation. However, one Headteacher indicated, that whilst the disclosure of dyslexia would be the reason for rejection for interview or the position, he would find/state other reasons on the formal paperwork. Here there is a sense of the repercussions of failing to implement the Equality Act (2010) but also a suggestion that it is easy to find alternative reasons not to employ someone. This is a significant finding of this research.

Worthy of discussion are other findings from the interview data which suggest that the notion and implementation of 'reasonable adjustments', as outlined in the Equality Act (2010), are at odds with the demands and basic roles and responsibilities of those in the teaching profession. Throughout the interviews, the implementation of 'reasonable adjustments' caused tension for a number of stakeholders. For Headteachers, underlying concerns were based on a number of considerations. One related to the financing of the reasonable adjustments, when school budgets are already stretched. A second concern was the pressure it may put on other staff within the school, when they themselves are already working within a pressured environment. Concerns in relation to this centred around work-life balance and how this could be diminished if existing staff were asked to support another member of staff, in the school, with dyslexia. As was shown by one respondent, Jayne, who was asked to proof read reports for someone with dyslexia, this can be time consuming particularly when many errors have to be corrected.

Concerns about what actually constitutes a 'reasonable' adjustment were also raised. Indeed, the Equality Act (2010) does not specifically state what adjustments are needed and what are considered to be reasonable. For several of the respondents in this present study, there appears to be a belief that 'reasonable adjustments' are 'unreasonable adjustments'. Here, we see that respondents are suggesting that there is a tension between the Equality Act (2010) and the standards and requirements of the profession.

For many of the respondents there is a genuine concern about how you can put in place reasonable adjustments for individuals who struggle with the basic competencies and requirements of being 'on the job'. Examples given included someone who needed 24 hours in order to read/rehearse reading out a story. This was seen as an unreasonable request as reading out aloud, unrehearsed is seen as a basic skill and requirement of the job - teachers can not all be given 24 hours in order to prepare for reading out a given text when flexibility and change to teaching/content needs to occur to respond to

the needs of the children in the class. Essentially, a number of respondents questioned how reasonable it is to support someone who struggles with literacy skills, in a position where literacy skills are a requirement.

It could be argued that the need to undertake the QTS skills tests, prior to entry on to an ITE programme, as is now the case, should help to eliminate entry into the profession by anyone who lacks such literacy skills. However, there are issues that can be raised with the nature of the QTS skills. First, whilst these do test basic literacy and numeracy skills, extra time can be given for their completion for those disclosing a disability, such as dyslexia, and for some this is not realistic in the classroom. Furthermore, the skills tests do not test the 'otherness' of being a successful classroom teacher, they do not test organisational skills, the ability to read out aloud under pressure and without prior rehearsals. This has raised the potential need for HEIs and ITE settings to review and revise their admissions policies and interview expectations.

Issues with the nature of the skills tests has led some stakeholders, involved in the current study, to assert that screening should be introduced, at the point of the QTS skills tests. This screening, should test for severity of dyslexia. Here the belief is that those with 'severe' dyslexia should not enter the teaching profession whereas those with 'mild' dyslexia should gain entry.

A key issue emerging from the interviews, in this study, is that of awareness of how best to support someone with dyslexia, in the primary classroom. Respondents appeared unaware of simple strategies that can be employed to support those with dyslexia to overcome potential barriers such as including key words on lesson plans to support spelling and having a seating plan to aid memory of names. However, this lack of knowledge about how best to support within a classroom is not confined to professional placements but the academic needs. Tinkin *et al* (2004) concluded that many lecturers are unaware of how best to support students with dyslexia, academically.

Emerging from the data is an apparent lack of understanding as to what reasonable adjustments can be made and indeed by whom. However, as shown in a study by University of Southampton, trainee teachers with dyslexia themselves disagree on what constitutes a reasonable adjustment in the teaching profession. Whilst one respondent stated:

Having an awareness that it has an impact on overall teaching and to give praise and support where necessary. Allowing for extra time to write reports and not expecting things to be finely tuned immediately. Giving templates for any sort of report writing. Giving printed copies of the school timetable to aid in organization (p.28).

Another stated:

None, if I can't do the job I should be doing something else (p.28).

For a third respondent, it is down to the individual and not the school to make the adjustments:

None, you should make your own adjustments, know it may take you longer and it should not be a "get out" for poor spelling in class or in reports, as these are crucial to being a teacher and therefore you need to work to double check these (p.23).

Similarly there was a level of confusion regarding whose responsibility it is to enforce reasonable adjustments for students on professional practice. In this study, the majority of respondents, from all stakeholder groups asked, registered a level of uncertainty. 4 respondents stated that they believed that it was the responsibility of the university at which the student was enrolled, with 2 stating it was the schools at which they were undertaking the professional placement and 2 stating it was a joint responsibility.

A useful model of placement support is proposed by Griffiths (2011). For Griffiths, support for those on professional placement, must be “proactive, discussed, investigated and planned by all concerned” (2011, p.8). Griffiths further asserts that each university should put in place a central co-ordinator, a university moderating tutor and a dyslexia support tutor. Bassey (1999) also agrees with a coordinated, team approach suggesting that improved communication is needed between schools and universities. A closer working relationship could thus serve as a means of professional development for current school staff, working with those with dyslexia. With an increase in school-led teacher training, through the introduction of school direct, we may see the lack of mistrust, arising from difference in ethos, between universities and schools, as identified by Trent and Lim (2010) reduced. In Scotland, HMIE (2008), also called for more robust relationships, stressing they should be:

Based on shared ownership of programmes and students, clarity of expectation, trust, respect and equal status (p.10).

However, such aims, regardless of geographical location, may only materialise if it is completely clear as to who is responsible for supporting and enforcing reasonable adjustments whilst on professional placement, which as this study has shown, is not.

In light of this, it has been suggested by The Association of Dyslexia Specialists in Higher Education (undated) that a named person, to act as a liaison between students, tutors, mentors and the student support services, should be appointed. However, training would still remain crucial for school staff and ITE staff alike, to improve awareness of the potential impact of dyslexia on professional placement and as O’Hara (2013 unpublished) states:

The emotional stress that dyslexic students may experience as they struggle to conceal their difficulties because of fear of discrimination (O’Hara, 2013, p. 56).

However, as has already been shown, much of this support hinges on disclosure of dyslexia. Without disclosure support cannot be put in place by any stakeholder involved in the training of future teachers. Again, the fear of stigmatisation and discrimination, which this research has revealed are real concerns and issues to face, prevents, and understandably so, many students from disclosing (Beverton *et al*, 2008). These factors, allied with the individualised nature of dyslexia and differences in placement settings poses, arguably insurmountable challenges in terms of providing effective support for students with dyslexia (Griffith, 2011)

5.4 Factors that may influence attitudes towards those with dyslexia training to be primary teachers

Demographic factors

A number of studies investigating attitudes towards disabled people have been shown to highlight the potential effects of age, gender and level of education on the attitude held. Yunker and Block (1986) asserted that in 129 studies reviewed, 44% reported that women were more positive towards those with disabilities compared to just 5% of studies concluding that men were more positive. However, 51% reported as no difference in the attitudes expressed. This study, overall supports the latter findings that there is no statistically significant difference between the attitudinal scores of men and women. However, one stakeholder group did show a stark contrast at Phase 1 of the data collection process. Male parents displayed a negative attitude towards those with dyslexia, training to be teachers, scoring a mean of 41 points, compared to female parents who scored a mean of 55.9, showing a neutral attitude, a difference of 14.9 points. All other stakeholder groups experienced a difference of scores between 0.7-3.2 points.

Stanovich's (2009) findings suggest that people falling within higher age boundaries appeared less comfortable interacting with people with disabilities. This present study also suggests that stakeholders who fell into the highest age boundary (60+) displayed attitudes on the negative spectrum towards those training to be teachers, with dyslexia, with a mean score of 41 generated. In comparison, those in the youngest age bracket (under 20 years) scored a mean of 59.2.

With regard to educational levels and overall attitudinal scores, unlike Staniland (2009), who concluded that those with lower educational qualifications were more likely to be negative, this research found no trends. Those with a PGCE were most likely to be display neutral to negative attitudes followed closely by those with GCSEs but those with both higher and lower qualifications showed positive attitudes.

Although previously un-researched, this study aimed to investigate the current employment status of school staff and their overall attitudinal scores. In doing so, it has been found that Headteachers are the least positive stakeholder group, scoring a mean of 49.1, followed by class teachers (49.5). The most positive school staff were those in an Assistant Head role (55.8). It is not clear as to why these differences exist. Examination of the data gained from the Headteachers who were interviewed may suggest a level of fear and uncertainty in an era of a standards approach to education and Ofsted as expressed by Ellen:

Well, we are judged as a school. I am judged as Head and my staff or judged according to their ability. It only takes one Ofsted inspector to see anything inadequate and that is it game over. What if they saw someone making errors, incorrect spellings? Struggling to read an unknown word? It would be a risk (Line 296-299).

Such comments indicate that being a good teacher and, therefore less of a threat to standards, is about the possession of high literacy skills. Ultimately, with the continued focus on high standards of literacy at all levels of policy making it is of no surprise that many Heads are feeling a pressure to employ those who they believe have the best

skills and question the ability of those with perceived deficits in their own literacy skills to become teachers (Riddick and English, 2006). Moore (2004) suggests that there is now only one model of a 'good teacher' which is dominated by the notion of being a 'competent craftsman'. For Moore, this is at the expense of the employment of individuals who can bring charisma to the profession.

The low mean score for those who are class teachers may be the result of personal experiences and may signify the pressures class teachers currently also feel under in relation to the standards debate. This requires further investigation.

The influence of exposure

With regard to the influence of exposure, on attitudes expressed, Baron and Byrne (2003) put forward the notion of the 'contact hypothesis' claiming that frequent contact and experience of someone with a given disability can result in more favourable attitudes. This links to the theory of habituation, the repeated exposure of someone to a given stimulus. In this case, it could be argued that for stakeholders who have worked/support those with dyslexia, may have more positive attitudes. The findings of this study indicate that as a complete sample population, of the 6 displaying negative attitudes overall, 4 (67%) did not know anyone with dyslexia. Of the 6 participants who displayed a positive attitude overall, 4 (67%) did know someone with dyslexia, and 2 did not, showing a reverse trend. Thus, this research appears to support the work of Moreland and Beach (1992), Slevin (1995) and Baron and Byrne (2003) that increased exposure can evoke more positive attitudes.

An interesting dichotomy between equality for children with dyslexia and staff with dyslexia emerged in the interviews with school staff. It appears that equality for children at school with dyslexia is perceived in a different way to equality for adults with dyslexia, training to be primary classroom practitioners. The classification of a school as 'dyslexia friendly' does not necessarily extend to staff.

In order to further explore attitudes, key words were requested from participants that they thought best described someone with dyslexia, training to be a teacher. This allowed participants to answer freely without the constraints of predetermined statements. Examination of these showed a wide range of diverse terms/phrases with a mix of both negative and positive responses. At Phase 1 of the data collection process the top 5 key words/phrases were found to be 'more support needed', 'brave', 'determined', 'a role model' and being 'hardworking'. The interview data also revealed that being 'brave' and 'determined' were key attributes assigned to those with dyslexia training to be teachers.

Turning first to being brave, different reasons underpinned the use of this term however, most respondents suggested that it was due to the perceived fear of parent complaints, if errors were made. This implies that respondents believe that those with dyslexia are likely to make more errors, which may lead to parental complaints than their non-dyslexic counterparts. Ultimately, an association can be made here to a deficit model and understanding of dyslexia.

For several respondents, determination was a key characteristic of someone with dyslexia training to be a teacher. Here the belief stemmed from a tacit understanding that the teaching profession is a demanding career for anyone and the perception that having a disability must add further challenges that individuals must overcome to be successful. Simple tasks such as reading a text can take someone with dyslexia much longer to read, which can in turn increase levels of tiredness.

Being a role model was provided as a key term by 45 questionnaire participants, which was deemed to signify a positive attitude. This concurs with a paper by the Scottish Teacher Education Committee (STEC, 2008) which actively encouraged universities in Scotland to encourage more students with dyslexia to enter the teaching profession, thus increasing positive role models. Further investigation of this term, as part of Phase 2 of the data collection process, revealed a number of responses. First the notion of

what constitutes a role model came to the fore as this proved problematic of 4 of the interview respondents. For a number of respondents, rather than being associated with positivity, negativity was evident, with the belief that the knowing people who struggled with literacy, were teachers, perpetuated the acceptance of lower standards within the profession. For pupils to recognise teachers with dyslexia as potential role models, this would require an openness about dyslexia and disclosure on behalf of the teacher. However, the level of openness was questioned. Fear of the perceptions of others in terms of competency, complaints and a standards drive approach to education were key reasons cited for teacher with dyslexia not being open about their own dyslexia.

New knowledge, in relation to attitudes expressed by different stakeholders, has been generated as a result of this study. This study has shown that those studying to be teachers themselves, are more positive in terms of the words/phrases/statements used to describe someone training to be a teacher, with dyslexia. The stakeholder group identifying the least number of positive statements was ITE staff.

Attitudinal score

As a complete sample population, 58.3% attained scores that fell on the neutral to positive spectrum compared to 41.7% falling on the neutral to negative spectrum in relation to people with dyslexia, training to be teachers. Overall a mean score of 55.4 was calculated showing the sample overall was close to neutral. However, there were differences between the stakeholder groups who comprise the complete sample. The findings of the questionnaires revealed that parents, closely followed by school staff were the least positive of stakeholder groups, in relation to those with dyslexia, training to be teachers. Students were the most positive group with ITE staff being the second.

Questionnaire data concluded that whilst there were some similarities in the attitudinal responses of stakeholder groups against particular statements, differences were evident for others. 77.8% of school staff and 60% of all parents questioned demonstrated a negative attitude towards the notion of people with dyslexia entering the teaching

profession. This research has also found that 71.6% of school staff and 76% of parents believe that parents should be concerned if their child is being taught by someone with dyslexia. When further investigated, with the parents involved in Phase 2 of the data collection process it became apparent that these parents also held negative attitudes towards those training to be teachers. For these parents, anxieties were expressed in terms of risk to their own child's education and the standard of teaching received. Underlying these attitudes is arguably, a belief that people with dyslexia are not as capable as teachers without dyslexia, based upon the perceived lack of literacy skills. This links directly to the social model of disability and the argument that dyslexia is only an issue in societies which operate as text-based societies, where high value and status is given to the acquisition of literacy (Kress, 2000). As a result, the negative connotation attached to being dyslexic and 'illiterate' has resulted in people with dyslexia having to face discrimination (Riddick, 2001).

Responses to these questions could be informed by the participants own personal stigmatisation of the disability, with many agreeing that there is still stigmatisation associated with the term. This supports the work of Olney and Brockelman (2003) and Morris and Turnball (2006) serving to reinforce the cycle of non-disclosure of dyslexia. This research suggests that the 'perceived' stigmatisation of dyslexia for those with it is far from a perception but a stark reality.

The successful completion of a teaching degree by someone with dyslexia is questioned most by ITE staff . As these staff are involved as personal and professional tutors as well as assessors for those on placement, it could be argued that these staff, more than any other stakeholder group, have a complete overview and awareness of completion/success rates of those with dyslexia on the courses they teach. Whilst no statistical evidence or previous research has been undertaken to investigate whether these perceptions and attitudes have empirical evidence to underpin them, in relation to completion rates of students with dyslexia on ITE programmes, Brunswick (2012) has suggested that students with dyslexia are more likely than others to withdraw from their

undergraduate degrees. Reasons underpinning lower completion rates include the increased amount of independent learning (Brunswick, 2012). However, such a claim is disputed by McKendree and Snowling (2011). For these authors, students with dyslexia are just as likely to pass their first year of undergraduate study as their non-dyslexic peers, however the need for support is recognised.

Interestingly, within this study, respondents did agree that those with dyslexia were able to cope, equally as well, with the academic demands of their programme, as those without dyslexia. Linking to the findings of McKendree and Snowling (2011), it is the level of support afforded by universities which is enabling for students with dyslexia. The range of resources available to those with a formal diagnosis of dyslexia are now numerous in their nature. For example, note taking in lectures, has historically been a frequent problem for those with dyslexia, due to the speed at which some lecturers can deliver their input and the complex skills entailed, such as working memory, listening comprehension, processing information, and organising and recording notes in a legible and fluent fashion (McLoughlin *et al*, 2002). However, this is now mitigated via the use of digital recorders and /or the use of note-takers. The use of Virtual Learning Environments and the use of PowerPoint slides are also common place in many HE institutions, allowing students to add notes to existing content. The provision of extra time, which Konur (2006) calls a 'timing adjustment' is also embedded within many academic student support plans, allowing for at least weekly extensions on assignments alongside the provision of extra time to complete tests/exams.

The need for extra time is supported by the work of Shaywitz and Shaywitz (2005) in their study investigating phonological processing and the phonological deficit theory of dyslexia. Shaywitz and Shaywitz (2005) concluded that the phonological processing speed of someone with dyslexia was much slower compared to individuals without dyslexia. The work of Ofeish and Hughes (2003) also support such claims for extra time however, for these authors rather than due to slower phonological processing speeds it is due to the need to re-read texts, arguably, owing to issues with short-term

memory. Whilst Konur (2006) discusses the need to extend work placements for those with dyslexia, no stakeholder within this study spoke about the need to extend placement times nor is the researcher aware of any professional ITE placements being extended for this. With courses such as the PGCE and School Direct programme, largely being full-time, this may prove a challenge due to the legal requirement to complete at least 120 days on placement.

The need for reasonable adjustments in terms of academic study, caused some level of tension for several of the respondents such as Lyndsay and Stephen due to the nature of the programme being studied and the expectations of being a teacher. This supports the work of Tinkin *et al* (2004) who concluded that some lecturers believed that adjustments may lower standards. This appears to be odds on a professional programme such as ITE programmes, with the need to meet standards in relation to the use of standard English in both written and spoken forms.

5.5 Chapter summary

This research has identified that stakeholders involved in ITE perceive those individuals as having dyslexia, training to be teachers, as having a number of perceived challenges and strengths that they bring to the classroom/profession. Strengths are namely showing determination, being brave, helping to identify children with dyslexia and showing greater levels of empathy. Areas of concern focussed predominantly on the level of support/monitoring needed, accurate completion of paperwork and overall fitness to teach particular age groups and subjects.

Chapter 6 – Conclusion and recommendations

In light of the research aim and associated research objectives, this chapter serves to present the key insights which have emerged from the data. In pursuit of knowledge, consideration is given to the contribution that the findings make to the existing knowledge base, whilst further areas of investigation, which emerged throughout this research, are also identified. Limitations of the study are acknowledged. To conclude the chapter, an overview of the dissemination strategy is presented.

6.1 The research aim and objective

The research aim and subsequent research objectives were informed through an exploration of existing literature and professional experiences of working with those with dyslexia, training to be teachers, and stakeholders involved in ITE. Curiosity in stakeholder attitudes was raised due to a number of complaints, made by stakeholders, regarding the admission of students with dyslexia onto ITE programmes and their subsequent employability chances. This research sought to establish whether these views were those of a minority or represented more widely held attitudes.

To this end, peers, studying on ITE programmes, ITE tutors, school staff involved in ITE placement provision and parents of children in classes supporting a trainee teacher were included as participants in this study. Of interest were the strengths and challenges that stakeholders perceive those with dyslexia bring to/face in the profession. Moreover, this research exploited a gap in the existing knowledge base by investigating whether stakeholder attitudes, regardless of equality legislation, were on a spectrum of positivity or negativity.

6.2 Level of understanding and awareness of dyslexia amongst a range of stakeholders involved in ITE

This research has found that there still remains uncertainty and confusion about the term dyslexia, its associated characteristics and its causes. Overall, stakeholders define dyslexia negatively with key characteristics being linked, predominantly, to deficits in reading, writing and spelling. The findings indicate that, for many stakeholders, there are concerns about the 'dyslexic' label itself. These concerns focus predominantly on the vagaries surrounding existing definitions. The label is seen as meaningless and as it encompasses so many characteristics, it is felt that everyone could be diagnosed with dyslexia at some point in their lives. Additionally, inequality of access to diagnosis and the wealth of resources obtained through acquisition of the formal label has led some stakeholders to question whether the label is exploited by more powerful and wealthier groups within society who are in need of a label to explain difference in attainment and then who use this as a bargaining tool for extra support and resources (Elliott, 2008). For most stakeholders, the term is perceived as a recent phenomenon with children, historically, being labelled alternatively as 'poor spellers' and 'poor readers'.

Those employed within the field of education have often lacked dyslexia specific training as part of their own ITE programme, pre-qualification, and have lacked in-service training, post qualification. However, the current picture appears more positive with current ITE students reporting that they have received explicit sessions in which their awareness and understanding of dyslexia has been raised.

It has been shown that parents of children being taught by trainee teachers are the least likely to know someone with dyslexia and ITE staff the most likely, and as will be discussed later in this chapter, knowing someone with dyslexia does appear to influence the overall nature of the attitude displayed, in a positive manner, as concluded in previous studies such as Moreland and Beach (1992), Slevin (1995) and Baron and

Byrne (2003). However, the nature of the contact as identified by Donaldson (1980) in terms of being structured or unstructured may be of worth of further investigation.

6.3 Perceived strengths and challenges, held by stakeholders, of those training to be teachers, with dyslexia

This research has found that stakeholders identify a number of strengths that those with dyslexia bring to the teaching profession. Key strengths include empathy and ease of identification of children with dyslexia. Having experienced challenges in their own educational experiences was the most common reason given for this increased level of empathy over trainee teachers without dyslexia, supporting the work of Morgan and Rooney (1997) and Burns and Bell (2011). However, unlike previous studies, this study has revealed that this empathy is seen only to extend to those learners with the same disability, in this case dyslexia, and not to learners with alternative disabilities such as physical challenges.

A similar finding was concluded in relation to inclusive practice. Trainee teachers with dyslexia were perceived to be more inclusive in their classroom practice – having a heightened awareness of the need to employ a range of teaching/learning strategies for pupils with dyslexia (Riddick, 2010). However, this did not extend to possessing a secure knowledge about effective pedagogical approaches for those with other special and/or additional needs.

The notion of creativity was divisive. Whilst indicated as a strength, in the questionnaires, thus appearing to support the findings of Attree *et al* (2009), when investigated further during the interviews, was actually underpinned by negative reasoning and connotations. Some stakeholders suggested that the creativity of individuals with dyslexia stemmed from the need to mask deficiencies in their own

literacy skills. In a verbal-linguistic profession, such as teaching, it appears that visual-spatial skills such as creativity are less valued.

The main challenges/concerns identified by stakeholders were - the demands of the profession; the inability to teach particular age groups/subjects; the level of support needed to ensure success; paperwork and retention following qualification.

Concerns surrounding the demands of the profession mainly centred around external pressures of Ofsted and parents and whether those with dyslexia would be subject to criticism and complaints. Underpinning these concerns is the issue of standards of teaching, particularly in relation to the quality of teaching and learning in literacy. This concern was borne out further with stakeholders raising concerns about the suitability of people with dyslexia to teach particular age groups and subjects. This research has revealed a polemic. Whilst some believe that those with dyslexia will struggle teaching younger children, due to the current emphasis on teaching phonics, others believe that challenges will be encountered if teaching older children, where the language is more advanced and texts have increased technicality. Secondary subjects such as Music, Art, PE and Mathematics were seen to be more appropriate career choices for those wishing to pursue a career in teaching due to the perceived lack of emphasis on text based resources.

Concerns regarding the level of support needed to ensure success were raised by all stakeholders. Concerns of the transition between pre to post qualification are evident. The level of support afforded by universities is seen to be intense and unrealistic in comparison to support that can be provided by schools, with decreasing budgets and existing issues with regard to work-life balance. This is a significant finding of this research. If students, with dyslexia, are seen to be successful only due to the high level of support they receive, and are seen to be likely to fail once they leave the highly structured systems of the university, ITE providers have a responsibility to ensure that students with dyslexia are prepared for employment settings where support is less

structured/limited. Without this preparation, ITE providers are, arguably, creating a situation where students may pass their PGCE or BEd but fail their NQT year. This also highlights the need for further study, with the aim of investigating the range and level of support that schools currently afford qualified teachers who have disclosed having dyslexia, in light of the Equality Act and the barriers identified in this current research (2010).

The perceived inability to complete paperwork accurately, and to agreed timescales, is a further concern as is the potential of complaints from parents should errors be made on documentation sent home. These concerns, combined, have led to concerns about retention of NQTs/staff following qualification. However, no statistics are available to confirm whether these concerns about retention are justified.

6.4 Employability

Findings from this research show that school staff are the most negative in relation to the potential employability of those with dyslexia, as classroom teachers. This research concludes that negative attitudes prevail and that the chances of employability are lessened upon disclosure. This has serious implications for those with dyslexia, despite the existence of equality legislation. Reasons given for the rejection of those with dyslexia include perceptions of concerns about standards and pressures from Ofsted should they see incorrect modelling and spelling during the inspection process. Ultimately, for school staff, parents and ITE staff, those with dyslexia are seen as too great a risk, particularly when demand for teaching posts is high.

The existence of legislation appears to do little to ensure that those in positions of authority and the power to employ those with dyslexia do so. The perceived risks associated with employing someone with a formal diagnosis of dyslexia, outweigh the perceived strengths that someone with dyslexia can bring to the profession.

Tensions appear to be at play between the equality legislation and the current emphasis on the drive to raise literacy standards. Emerging from the findings is an uncertainty about legislation. First, there is uncertainty about reasonable adjustments and what these are in a profession where literacy skills are central to the professional standards. Second, there is uncertainty about whose responsibility it is to enforce reasonable adjustments. Third, there is uncertainty about how schools can actually support those with dyslexia.

Screening is an emerging concept from this research, with some stakeholders stating that screening is needed at the point of admissions. The current QTS skills tests are not seen as being fit for purpose as they do not test the qualities and skills needed for the profession beyond the mechanics of English and Numeracy skills. It has emerged that stakeholders believe that the screening process should debar those at the 'severe' end of the spectrum from entering the profession.

The findings from this research have serious consequences in relation to disclosure of dyslexia. This research has found that a fear of stigmatisation and potential discrimination, which have previously been reported to deter those with dyslexia from disclosing on both course and job applications, are indeed justified and real. Whilst some stakeholders state that those with dyslexia, particularly those at the severe end of the dyslexic spectrum, should disclose to ensure that adequate support can be put in place, others are cautious knowing that there is a lack of support in some schools and the existence of negative attitudes which calls into question whether such individuals should enter the teaching profession. Those participants who disclosed that they have dyslexia stated that they have experienced negativity upon disclosure, thus adding credibility to the call for non-disclosure.

6.5 Overall nature of attitudes

Overall, this research has found that 16.1% more stakeholders display attitudes on the neutral to positive spectrum than neutral to negative. However this masks major differences between stakeholders and between responses to particular statements/questions. A significant majority of school staff and parents demonstrated a negative attitude towards the notion of people with dyslexia entering the teaching profession, believing that parents should be concerned if their child is being taught by someone with dyslexia. Both of these findings could have serious implications on the future disclosure of those with dyslexia, again supporting the notion that the fear of stigmatisation is a reality that could impact on someone success in the teaching profession.

6.6 Contribution to professional knowledge and recommendations

The contribution to knowledge was at the very heart of this study. In 2007, the DRC stated that there was an absence of research regarding those with disabilities within the profession of teaching, a claim supported by Cameron and Nunkoosing (2012). This research helps to fill this void.

This research has added to current knowledge first and foremost in that a wider range of stakeholder attitudes have been investigated. Previous research has focussed, predominantly, upon lecturer attitudes and the experiences of students with dyslexia themselves, whilst on professional placement. In contrast, this research has focussed on the attitudes of peers also studying on ITE programmes, the attitudes of school staff, parents of children being taught by ITE students and ITE lecturers. The lack of an examination of a wider range of stakeholders was a key driver for this research.

Where previous research has considered whether to disclose or not to disclose dyslexia, the literature review revealed that no explicit consideration had previously been given as to whether stakeholders would or would not employ someone who had disclosed dyslexia. This research addresses this lack of knowledge base, concluding that employability chances are indeed weakened, significantly, if dyslexia is disclosed. This research has found that the lack of desire to employ someone with dyslexia has emerged largely from fear. In the current educational climate, an era of a standards driven education system, with Ofsted and an increasing voice from parents, those with dyslexia are seen, simply, as too great a risk. Both the trainee teacher with dyslexia, and the children for whom they are responsible, are seen to be vulnerable.

Where previous research has assumed a shared understanding with the participants involved, of the term dyslexia, this study has served to investigate existing knowledge and awareness of dyslexia. In an era where dyslexia is one of the most common forms of diagnosed disability, it is easy to believe that a shared understanding exists. This research has shown that in 2015 there exists significant negativity, and arguably, ignorance, surrounding the concept of dyslexia. Despite increased numbers of those with dyslexia, there is still much confusion about dyslexia, its causes and characteristics. As a result, it is suggested that further work is required to raise awareness and understanding amongst the ITE community and parents.

Following from this, although universities are perceived to put in place robust measures to support the academic needs of those with dyslexia on ITE courses, there is an apparent lack of awareness of how best to support those with dyslexia whilst on professional placement. It is recommended that further professional development/in-service training is needed with regard to strategies that may be employed within a classroom setting. Further research should seek to investigate the use of support plans for those with dyslexia and the extent to which they meet the needs of those students on professional placement. However, a significant finding has also been that school staff perceive that universities afford too much support to those with dyslexia, which

when removed may lead to failure. A review of the type and level of support provided by HEIs would benefit from review to ensure that students, with dyslexia, are not being set up to fail when they move into employment/settings where levels of support are variable and less than that provided by universities.

If we are to believe that exposure to those with a disability can improve attitudes, then it also follows that those with dyslexia, who have robust strategies in place and who are successful classroom practitioners, should support in this delivery of dyslexia awareness training. Through a focus on first hand experiences, of how barriers can be overcome, a biopsychosocial model of disability can be promoted thus reducing the focus on dyslexia as a medical condition, with the individual to blame for deficits in basic skills. Rather, being cognisant that individuals, with dyslexia, can be successful in the teaching profession may lead, for some to a cultural shift in mind-set.

Despite the Equality Act (2010), this research shows that confusion and tension exists between the need to meet The Teachers' Standards (TDA, 2012) and the legal right to have reasonable adjustments made. Stakeholders appear unaware of what constitutes a reasonable adjustment in the teaching profession. Further clarity is needed regarding what constitutes a reasonable or unreasonable adjustment. Additionally, stakeholders are unaware of whose responsibility it is to meet the requirements of the Equality Act (2010) when students are on professional placement. HEIs offering ITE programmes would benefit from having a clear statement or partnership agreement in place offering clarity of roles and responsibilities. Furthermore, it may of benefit for ITE programmes to have a named dyslexia coordinator to ensure there are clear communication channels and support is available for all stakeholders involved with the trainee teacher, with dyslexia, on professional placement.

6.7 Contribution to personal knowledge

The study has impacted upon my current role in relation to my work with ITE students and associated stakeholders in a number of ways. Firstly, by recognising the importance of raising awareness and understanding of dyslexia, explicit dyslexia sessions are now delivered to all ITE students as an integral part of their taught programme. These discreet sessions ensure that students explore, in a critical manner, the varied definitions, causes and characteristics of dyslexia to better support identification and removal of potential barriers to learning, within their primary classrooms.

Being aware of the existence of negative attitudes towards those with dyslexia entering the teaching profession, for those ITE students with dyslexia themselves, the importance of entering their professional placement with effective and robust strategies in place, is now stressed throughout personal tutorial meetings. The notion of reflective practice and the need for all students, training to be teachers, to be aware of their own areas of development and, ultimately, the impact that they have on children's learning has been highlighted more explicitly throughout professional studies modules.

Additionally, I have been instrumental in the delivery of new mentor training sessions, for school based staff mentoring students on professional placement. These sessions now incorporate materials explicitly to address the mentoring of ITE students, with dyslexia, alongside other disabilities. Within these training sessions, potential challenges that someone with dyslexia are perceived to face, as evidenced in the findings of this study, are discussed in light of inclusive, equality legislation alongside the requirement to meet professional standards. It is my belief that mentors should be aware that whilst the Equality Act (2010) and reasonable adjustments should be put in place, if a student with dyslexia is not employing or utilising strategies which mitigate any areas of weakness, resulting in a failure to demonstrate the Teachers' Standards (2012) then as placement assessors, they have a right to highlight this to the student.

Potential tensions the mentor may have when making these judgements must be managed sensitively through effective partnership relationships that enable students, with dyslexia, to be assessed fairly in line with their peers. Here, I assert that those with dyslexia should not be assessed differently, against the Teachers' Standards (2012) to those without dyslexia. We should be prepared to fail anyone, with or without dyslexia, if they are not meeting the minimum requirements (to gain QTS) but we should not be prepared to fail the children they are teaching.

This research has been a journey of self-reflection. My initial beliefs, informed by literature, that those with dyslexia bring to the profession a range of positive attributes such as creativity and empathy have been reevaluated. It is now my understanding that it is difficult to isolate attributes that individuals display and to assert a cause and effect relationship. It is not possible to assert, with conviction, that someone with dyslexia, who is creative, is so because of their dyslexia. The same individual could be creative if they did *not* have dyslexia. Similarly, on reflection, I believe that you do not have to have a disability to be empathetic towards others with disabilities, to have a good understanding of inclusion and how to reduce potential barriers to learning.

Given the negative findings towards the relevancy of the QTS English and Maths skills tests and the institution's current admissions process, I have worked closely with the ITE team to redesign the ITE admissions process to ensure that activities are now included which require candidates to display a wider range of skills and abilities required of a teaching professional these include, problem solving, a demonstration of public speaking, lateral thinking skills and the ability to plan/deliver teaching activities within a given time frame. Working with the wider university student support team, adjustments that are requested by candidates but which are deemed to be unreasonable for the teaching profession have been removed to ensure that those entering ITE programmes are accurately assessed, at the point of interview, as to whether they demonstrate a propensity to manage the varied demands of the profession.

Finally, the Partnership Team have been asked to review the Partnership Agreement, currently in place to acknowledge key roles and responsibilities of stakeholders in line with inclusive legislation. However, in light of findings, this has led me to question my own practice and recommendation that students disclose their disabilities on forms, knowing the extent of discrimination openly discussed in this research has questioned my belief in the influence of equality legislation.

The inter-professional nature of the Ed.D has encouraged me to forge links with colleagues from a range of disciplines relevant to this study. To this end, colleagues from sociology, psychology and nursing were consulted. Here it is arguable that I adopted the role of a 'convener', cultivating of a new community of practice, to transform existing practice across traditional boundaries, creating lasting change (Wenger-Trayner, Fenton-O'Creevy, Hutchinson, Kubiak, and Wenger-Trayner, 2015). In the role of 'convener', trust needed to be gained from members of the different communities of practice, as new boundaries needed to be negotiated and existing practices required investigation (Wenger-Trayner *et al*, 2015). Through this inter-professional engagement and discourse, it soon emerged that rather than being a member of a 'single community of practice' as originally espoused by Lave and Wenger (1991), in developing my own professional competency and identify, I am member of a number of communities of practice, each with their different boundaries.

Further supporting the work of Wenger-Trayner *et al* (2015), undertaking this WBP has also highlighted that bodies of professional knowledge (such as the teaching profession) are, "constituted by a complex landscape of different communities of practice" (Wenger-Trayner, 2015, foreword), not a single community, which are fluid and dynamic in their composition. If the body of knowledge of the teaching profession, is a "living landscape of practice" (*ibid*, foreword) then, in pursuit of this WBP, my own professional development and "personal experience of learning can be thought of as a journey through this landscape" (*ibid*, foreword).

The notion of a 'community of practice' first formalised in the writing of Lave and Wenger (1991) provides a useful starting point to describe a group of people who, "engage in a process of collective learning in a shared domain" (Wenger, 1998, p.8) and who are, "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (ibid, p.9). Seen as an extension of organisational theory espoused by Weick (1979), a community of practice is seen as a way to understand how members of an organisation work together to interpret and respond to circumstances and events that effect their environment.

Distinct from formal organisational structures, a community of practice forms as a result of purpose, mutual engagement, joint enterprise, identity and tend to be self-organised and spontaneous (Wenger, 1995; 1998). With respect to this thesis, a new community of practice has been formed in which risks and opportunities, in relation to those entering professional programmes, with dyslexia, has been the central focus (Kline, 2007). Through this community of practice "a culture of enquiry, questioning, searching for new ideas, critical thinking, dialogue, debate and collective problem-solving" (McIntyre, 2008 p.19) has been promoted, contributing to the existing body of professional knowledge and shaping new boundaries (Wenger-Trayner *et al*, 2015).

Competence, experience and identity are central features of a community of practice (Wenger-Trayner *et al*, 2015). Throughout this research, I, like other members of the community, shifted from a state of 'legitimate peripherality', where I perceived myself to be a relative outsider in terms of my knowledge and understanding of the issue (dyslexia), to a state of being a full member, with greater levels of influence, being able to shape and influence the community (Baxter, 2004, p. 34). For Wenger (1998) this constitutes a transformational process from novice to expert.

A significant rethink of learning and organisational management is reflected in the communities of practice approach to learning (Barton, 2005). As a result of this study, and having participated in different communities of practice, I have learnt that engagement and participation *in* a community of practice is a fundamental learning process (Barton 2005; Wilde 2006). Throughout this involvement, working with colleagues from other domains, as peers, I have developed expertise and knowledge and understanding of other professional programmes through the sharing of experiences, ideas, advice and knowledge.

My personal trajectory, as a result of my existing professional role and the completion of this WBP, has taken me through a number of communities. As a Senior Lecturer in Initial Teacher Education, it is clear that I have engaged in 'boundary crossing'. Boundary crossing has facilitated membership of multiple communities which has served to inform and influence my own learning as well as the learning of the group (Wenger, 1998, Wenger-Trayner *et al*, 2015).

6.8 Future research

In line with the epistemological beliefs which underpin this study, the findings detailed in this research are based on personal interpretations of the data gathered. These are not intended to represent a single truth and as such further research may shed further light on the conclusions reached. Further research may include:

1. An examination of whether attitudes towards those with dyslexia change over time. In this study ITE students were participants however the stage of their training was not acknowledged. It may be of interest to conduct a longitudinal study to establish whether views change throughout their ITE programme and into the early years of their teaching careers.

2. An examination of a wider set of stakeholders such as the teaching unions, Ofsted inspectors and members of the National College for Teaching and Learning.
3. Some interview participants suggested that it is not just those with dyslexia who are a perceived risk to the profession and standards. What other disabilities are perceived to be a risk with regard to employability and disclosure?
4. An action research project to explore the impact of dyslexia awareness training/CPD activities on attitudes held by stakeholders.
5. Further research is recommended into the potential impact of the creation of a specific dyslexic coordinator within the ITE as a link between ITE programmes and professional placements.

6.9 The importance and process of dissemination

Dissemination of research is a crucial element of the research process. Indeed Tobin (2003) asserts that without dissemination research is meaningless and a futile exercise. Stapleton (1983) similarly contends that research undertaken purely for altruistic reasons, personal gratification and academic prestige are difficult to justify. Although research undertaken for these reasons may extend knowledge, the lack of application to practice, questions its worth and value.

For Elliott, O'Loughlin, Robinson, Eyles, Cameron, Harvey, Raine and Gelskey (2003) dissemination is an active process whereby interaction takes place between the producer of knowledge and the users of the knowledge. Here, potential users of the research product are actively sought out by the producer. This is in direct contrast to the notion of diffusion which is characterised by a passive process, where new ideas and innovations spread through channels and social systems over time in a more haphazard fashion (Basch and Sliepcevich, 1983).

Harmsworth and Turpin (2000) identify three stages of dissemination: to raise awareness of the research project itself; to encourage potential participants and users to engage and interact with the findings; and to promote understanding of the research and its products, to bring about change in policy and/or practice. Arguably, to be effective, dissemination needs to not only add to existing professional knowledge and understanding within a given field but to encourage the users of knowledge to engage in revision or change of their existing professional practice. A timetable of dissemination activities can be found in Appendix 27.

Walker (2001) likens dissemination to a pebble being dropped into a pond and the resulting ripples spreading out from the centre. In this analogy, any dissemination strategy should seek to have maximum reach to all potential users of the new knowledge - to stretch to audiences beyond the boundaries of the institution that the author/researcher works within. Potential audiences are detailed in Appendix 28.

An outline of journals considered to support the dissemination process can be found in Appendix 29. In short, traditional methods of printed publication and conference deliveries will be combined alongside more technologically based vehicles of dissemination. To ensure ethics and professionalism are maintained, publishing of all or part of the WBP in the same or alternative format, will need to be discussed and agreed with any host/publication house.

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APPENDICES

Appendix 1 – Examples of visual processing

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Appendix 2 – Further theories of dyslexia: Key characteristics

Theory	Key claims	Research base
Rapid Auditory Processing Theory	<ul style="list-style-type: none"> • Phonological deficits seen as secondary to a more basic auditory deficit. • This deficit relates to the perception of short or varying sounds. • Tests show poor performance results on a range of auditory tasks such as frequency discrimination and temporal processing • Rapid auditory processing is the direct cause in phonological deficit and thus the difficulty in learning to read. 	<p>Tallal, Miller and Fitch(1993)</p> <p>Ahissar, Protopapas, Read and Merzenich (2000).</p>
Visual Theory/ Magnocellular Theory	<ul style="list-style-type: none"> • Supporters believe visual impairment gives rise to difficulties when processing letters and words contained within a text. • The visual impairment can constitute unstable biocular fixations, poor vergence or visual crowding. • Bi-visual theory emphasises a visual contribution to reading impairment and does not dismiss a phonological deficit. Indeed, they assert can both occur together. 	<p>Spinelli, De Luca, Judica, Zoccolotti (2002)</p>

	<ul style="list-style-type: none"> • Visual dysfunction is based on the visual system dividing into two pathways - the magnocellular and parvocellular. • Cells within the magnocellular pathway (known as the transient system), are large cells which code information regarding contrast and movement. • Cells found within the parvocellular pathway (known as the sustained system) are smaller cells which code information about detail and colour, The two systems need to work in cooperation to enable individuals to perceive a stationary image, when eyes move across a page of text. • For some people with dyslexia, the magnocellular pathway is selectively disrupted, with neurones being impaired, leading to deficiencies in visual processing, and, via the posterior parietal cortex, to abnormal binocular control and visual-spatial attention. • This explains why some people with dyslexia perceive texts to be wobbling, uneven or moving on the page as they are reading • Anatomical studies showing abnormalities of the magnocellular layers of the lateral geniculate nucleus provide evidence for magnocellular dysfunction 	<p>Reid (2009)</p> <p>Reid (2009)</p> <p>Hari and Renvall (2001)</p> <p>Examples can be located in Appendix 1</p> <p>Livingstone, Rosen, Drislane and Galaburda (1991)</p>
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	<ul style="list-style-type: none"> • Psychophysical studies indicate decreased sensitivity in the magnocellular range, i.e. low spatial frequencies and high temporal frequencies, in people with dyslexia 	<p>Cornelissen, Richardson, Mason, Fowler and Stein (1995).</p>
<p>Visual stress</p>	<ul style="list-style-type: none"> • Significance of visual stress in preventing people with dyslexia from reading • Can lead to avoidance of reading, resulting in a lack in the amount of practice necessary to develop the decoding of texts. • Recent studies reveal prevalence of visual stress is higher in people with dyslexia. • For people with dyslexia the neural system for recognising letter shape differences does not interconnect sufficiently with other neural systems involved in reading. • Visual stress may be related to dyslexia in some cases, however Elliott (cited in Dispatches, 2005) argues that research has shown that people with dyslexia see just as well or badly as non-dyslexic people and dyslexia is not a visual problem. The nature of this research is not disclosed by Elliott so validity cannot be assessed. 	<p>Singleton (2008) in Reid (2008)</p> <p>Singleton (2008) in Reid (2008)</p> <p>Geake (2009)</p>

<p>Cerebellar Theory</p>	<ul style="list-style-type: none"> • Biological claim that, in dyslexic individuals, the lateral zone of the cerebellarum is dysfunctional thus causing cognitive difficulties to arise. • Cerebellum is one of the first structures of the brain to develop but is one of the last to reach maturity as cellular organisation within the cerebellum continues to change after birth. Evidence suggests that the cerebellum is prone to damage. This can often be the case in premature births with the damage resulting in a variety of cognitive, language and motor difficulties. • Precise timing of procedures that accomplish a behavioural response or task behaviour is one of the functions of the cerebellum. These sequences play a vital role in the automaticity of skills – where skills be carried out without thought. • An impairment of cerebellar proceedings affects the automisation process of over-learned skills which is vital in the acquisition of new skills. Children with dyslexia, exhibit difficulty automatising basic tasks, such as balancing. • This subsequently has implications in practice, as individuals with dyslexia need significant opportunities to over-learn. 	<p>Nicholson and Fawcett (1990)</p> <p>Nicholson, Fawcett and Dean (2008)</p> <p>Nicholson, Fawcett and Dean (2008)</p>
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Asynchrony Phenomenon	<ul style="list-style-type: none"> • Speed of processing, within the word decoding process is attributed to the existence of dyslexia. • People with dyslexia appear to experience difficulties in the transference of information from one hemisphere to the other. This difference was significant when compared to non-dyslexic participants. Whilst participants with dyslexia took, on average, 9-12 milliseconds to transfer information from the right to the left hemisphere, non-dyslexics took only 4-6 milliseconds and transferred information from the left to the right. 	<p>Breznitz and Lebovitz (2008)</p> <p>Breznitz and Lebovitz (2008)</p>
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Biological Theory - Genetic Factors	<ul style="list-style-type: none">In 1950, the first large scale study into the hereditary nature of dyslexia, was conducted.Familial clustering of a trait, such as dyslexia suggests a genetic factor but environmental factors have also been shown to be contributing factors.In twin studies, monozygotic twins (MZ), those with a virtually identical genetic makeup, have a higher incidence of dyslexia than dizygotic twins (DZ), those who share half of their segregating alleles.In numerical terms, 68% of MZ twins compared to 38% of DZ twins were found to have dyslexia; this indicating a genetic component.If a person with dyslexia has a father with dyslexia, they have a 40% chance of having dyslexia themselves.Much of this work has been focused on the heritability of reading sub-skills and particularly the phonological component.Heritability of dyslexia particularly in males, between a 40% and 50% chance of a male child, of one dyslexic parent, being dyslexic.	Hallgren (1950) Fisher and DeFries (2002). Pennnington, Gilger, Pauls, Smith, Smith and DeFries (1991) Reid (2009) and Hall (2009)
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	<ul style="list-style-type: none"> • Some of these methods of data collection deemed insufficient in actually providing reliable research results. • Several molecular genetic studies of dyslexia have focused upon specific chromosomal regions. • First linkage study of dyslexia with families with a three-generation history of reading difficulties. From this study, gene markers for dyslexia were been found in chromosome 15. • However, subsequent studies have shown to be inconsistent in replicating the data/results of the initial study and thus suggest that there is not a compelling link. • A linkage to dyslexia may also exist in chromosome 6. Genes, implicated in autoimmune diseases, reported to show high levels of correspondence with dyslexia, are found in this region • Current genome linkage research has indicated that there are nine gene regions which are linked to dyslexia. These regions are DYX1-DYX9. Additionally, four candidate genes have been identified through the process of systematic association analysis. These are namely, DCDC2, KIAA0319, 	<p>Snowling (2000)</p> <p>Smith, Kimberling, Pennington and Lubs (1983)</p> <p>Fisher and Defries (2002)</p> <p>Cardon, Smith, Fulker, Kimberling, Pennington and DeFries (1994); Stein and Monaco (1998); Snowling, (2000).</p> <p>Schulte-Körne, Warnke and Remschmidt (2006).</p>
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	<p>ROBO1 and DYX1C1. All of these genes play a role in neuronal migration and thus establish them as potential candidate genes for dyslexia. However no specific, dyslexic gene has been identified</p>	
<p>Hemispheric Symmetry</p>	<ul style="list-style-type: none"> • Evidence of difficulties in processing information due to structural differences between hemispheres in the brain. • Studies show that in the outer layer of the cortex, dyslexics appear to have misplaced cells. In non-dyslexic individuals cells are not usually present in this given area of the brain. • Misplaced cells are usually found in the left hemisphere, in areas usually associated with language. • The use of PET scans of dyslexic adults show less activation in the left posterior temporal cortex was recorded in people with dyslexia during word and non-word recognition tasks compared to their non-dyslexic counterparts. • Critics argue knowledge from neuroscience and genetics is too basic. Any attempt to support the clinical or educational value of the notion of dyslexia on the basis of brain abnormalities would represent something of a conceptual sleight of hand. (Elliott 2005, cited in Elliott and Gibbs 2008, p.480) 	<p>Geschwind and Galaburda (1985, cited in Reid, 2009)</p> <p>Knight and Hynd (2002)</p> <p>Galaburda (2005)</p> <p>Brunswick, McCrory, Price, Frith and Frith (1999)</p> <p>Elliott and Gibbs (2008)</p>

Appendix 3 – Example questionnaire

Printable version of ITE Staff questionnaire

What is your gender?

Please choose **only one** of the following:

Female

Male

What is your age?

Please choose **only one** of the following:

under 20 years

21-30 years

31-40 years

41-50 years

51-60 years

61+ years

What is your highest level of qualification?

Please choose **only one** of the following:

Professorship

PhD or Ed.D

- Masters degree
- Honours degree e.g. BSc (Hons), BA (Hons), BEd (Hons)
- Bachelors degree without honours
- Cert Ed.
- HND
- HNC
- A Levels, BTEC, Cache Diploma
- GCSE, O Levels
- CSEs
- Other
- No formal qualifications

Number of years working in an educational field

Please choose **only one** of the following:

- 0-5 years
- 6-10 years
- 11-15 years
- 16-20 years

21-25 years

26-30 years

30+ years

This does not have to be concurrent years but the overall total

What does the term 'dyslexia' mean to you? Please provide a definition.

Please write your answer here:

Give three words/phrases that you think best describe a trainee teacher with dyslexia

Trainee teacher with dyslexia

Word/phrase choice 1

Word/phrase choice 2

Word/phrase choice 3

Do you know anyone with dyslexia?

Please choose **only one** of the following:

Yes

No

Please indicate their relationship to you and approximately how often you see them.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '7 [Q0007]' (Do you know anyone with dyslexia?)

Please choose the appropriate response for each item:

	Daily	Weekly	Monthly	Yearly	Other
Mother	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Father	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brother	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sister	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Own child	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partner	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other family member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal friend	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neighbour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work Colleague	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teacher (during own schooling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Child in class/school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Below are some general statements about people with dyslexia. Please indicate to what extent you agree or disagree with the statements using the scale provided

There are no right or wrong answers or trick questions. I am interested in attitudes and beliefs so please answer honestly.

This questionnaire is entirely confidential and anonymous.

Please choose the appropriate response for each item:

	Strongly agree	Agree	Neither agree/disagree	Disagree	Strongly disagree
People with dyslexia should have the same opportunities as everyone else to train to become a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia can empathise more with children who have learning disabilities than people who do not	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia are more likely to be inclusive in their classroom practice than people without dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia are more likely to struggle with the demands of teaching than people without dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia are more likely to find the teaching of early reading and writing difficult than people without dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia should not enter the teaching profession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initial Teacher Education courses should not accept applications from people with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly agree	Agree	Neither agree/disagree	Disagree	Strongly disagree
dyslexia					
A person with dyslexia, training to be a teacher, is likely to require more support than a person without dyslexia training to be a teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia are more likely to be creative in their classroom practice than people without dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents should not be concerned if their child is being taught by someone with dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia should not expect to meet the same goals as people without dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If a person discloses, on an application form, that they have dyslexia this may decrease their chance of being invited to an interview	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a stigma attached to the term dyslexia that may prevent people from obtaining teaching posts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia are just as likely to succeed on teacher training programmes as those people who do not have dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dyslexia does not exist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly agree	Agree	Neither agree/disagree	Disagree	Strongly disagree
I would employ a person with dyslexia as a classroom teacher	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia are less likely to meet the academic demands of a teaching degree than those without dyslexia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
People with dyslexia should disclose their disability to school staff e.g. Headteachers, mentors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you consider yourself to have a disability?

Please choose **only one** of the following:

Yes

No

What disability/disabilities do you have? Please list

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '11 [Q0011]' (Do you consider yourself to have a disability?)

Please write your answer here:

Have you disclosed your own disability to your

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '11 [Q0011]' (Do you consider yourself to have a disability?)

Please choose the appropriate response for each item:

	Yes	No
Current line manager	<input type="radio"/>	<input type="radio"/>
Work colleagues (those in a non-supervisory role)	<input type="radio"/>	<input type="radio"/>
Students	<input type="radio"/>	<input type="radio"/>
Family	<input type="radio"/>	<input type="radio"/>
Friends	<input type="radio"/>	<input type="radio"/>

Please give a brief explanation why you have chosen or not chosen to disclose your disability to any of the stakeholders identified in the previous question

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '11 [Q0011]' (Do you consider yourself to have a disability?)

Please write your answer here:

Have you ever experienced

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '11 [Q0011]' (Do you consider yourself to have a disability?)

Please choose the appropriate response for each item:

	Yes	No	Uncertain
Negative comments about your disability from any member of staff in your current employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive comments about your disability from any member of staff in your current employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Yes	No	Uncertain
Negative comments about your disability from any member of staff in your past employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive comments about your disability from any member of staff in your past employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative comments about your disability from any student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive comments about your disability from any student	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative comments about your disability from any family member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive comments about your disability from any family member	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative comments about your disability from any friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive comments about your disability from any friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please provide details of any incidents regarding positive and/or negative comments and attitudes displayed towards you during your employment, in education, regarding your disability.

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '11 [Q0011]' (Do you consider yourself to have a disability?)

Please write your answer here:

Would you disclose your disability on a teaching job application form?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '11 [Q0011]' (Do you consider yourself to have a disability?)

Please choose **only one** of the following:

Yes

No

Uncertain

Thank you for taking the time to complete this questionnaire.

The next stage of this research will consist of interviewing a selection of different stakeholders who have completed this questionnaire. This is so a variety of opinions and attitudes may be further examined in more depth.

If you would like to participate in the interview process please email:

s.charles@derby.ac.uk giving your name and contact detail

Appendix 4 - Rationale for questions to be included at Phase 2 of the research process

Question	Reasoning for inclusion in schedule	Link to research objective
How old are you?	Recent research undertaken by Staniland (2009) investigated responses to a range of given disability scenarios and concluded that the impact of age on attitudes towards those with a disability was inconsistent.	4
How many years have you worked in education?	This is to examine whether there are any patterns in terms of length in service and the overall attitude expressed regarding dyslexia in later questions.	4
Which is your current position in school/the department?	As with gender, there is, in most scenarios, a positive relationship between educational level, social class and the proportion of respondents saying they would be very comfortable with disabled people (Staniland 2009).	4
Do you have relatives, friends or colleagues with dyslexia? How would you describe your level of contact with these individuals?	A number of authors, Zajonc (1968) and Antonak and Harth (1994) assert that exposure to a stimulus can be sufficient to evoke a positive attitude response toward a person, place or event (the attitude object), even if no explicit interaction with it has taken place. Slevin (1995) concluded from a study of nurses that increased frequency of contact and familiarity with disabled patients resulted in more positive attitudes of the nurses towards these patients compared to nurses whom had little contact. McConkey and Truesdale-Kennedy (2000) further argue that the type of contact is also important – personal and professional.	4

Do you have a diagnosed disability yourself that you are willing to disclose? (<i>If dyslexia is disclosed also ask questions from Section 5</i>)	The response to this question will determine whether additional questions are asked to the respondent	4
Please detail your highest qualifications gained	As with gender, there is, in most scenarios, a positive relationship between educational level, social class and the proportion of respondents saying they would be very comfortable with disabled people (Staniland 2009).	4
Did you ever read about/ receive any training about dyslexia in your studies? If yes, can you offer more information?	Praisner (2003) found that a majority of school principals had either negative or ambivalent attitudes toward inclusion. She found that principals who had completed more training (both pre-service and in service) related to inclusion and special education had more favorable attitudes.	1
How would you define dyslexia? What meaning does the word “dyslexia” have for you? Characteristics?	Since the introduction of the concept of dyslexia in the medical profession, there have been a plethora of definitions presented to describe the phenomenon of dyslexia. This mass array of definitions and accompanying multiplicity of attributes that have been described, by different researchers in the field, has, arguably, caused scepticism for its very existence (Elliott 2008).	1
Do you believe that dyslexia “exists”?	At the heart of Elliott’s 2008) argument is that belief that the term ‘dyslexia’, as is commonly used, is meaningless. Elliott asserts that the list of co-morbid characteristics, which are also characteristic of a plethora of other ‘disorders’, such as attention deficit disorder and dyspraxia, renders the term useless due its vagaries.	1
How would you describe an ITE student with dyslexia? Without?	This is ascertain whether positive or negative characteristics, verbs/nouns/phrases are used.	2

<p>Do you think students with dyslexia should enter the teaching profession? Can you explain your answer?</p>	<p>Several stakeholders answered no to this question during Phase 1 of the data collection process but there was no section to explain their answer. This question aims to capture the underlying reasons for their beliefs be the answer yes or no.</p>	<p>3</p>
<p>Is there anything that concerns you about a person with dyslexia entering the teaching profession?</p>	<p>Festinger (1957) and cognitive dissonance. Attitudes held by some of dyslexics focus on deficiencies and incapacities such people look for particular behaviour and issues, in the classroom, which reinforces their negative view rather than looking for the strengths that they may bring.</p> <p>Goldstone (2002) concluded that costs for adjustments for the retention of staff with disabilities were higher than for new recruits.</p>	<p>2, 3</p>
<p>Are they any specific strengths that you believe that people with dyslexia bring to the teaching profession?</p>	<p>In research undertaken by the University of Southampton respondents indicated that as dyslexic teachers they showed the usefulness of having an awareness of different teaching approaches, such as multi-sensory teaching, when teaching children with SEN</p>	<p>2, 3</p>
<p>Some people suggest that those with dyslexia are good role models for children with dyslexia. How do you feel about this claim? What do you see as being a 'role model'?</p>	<p>Phase 1 data results indicated that a high proportion of stakeholders saw ITE students with dyslexia as being role models to children. This question seeks to further understand why people are perceived in this way.</p>	<p>2, 3</p>
<p>Are there any other professions which may present challenges to someone with</p>	<p>The issues surrounding dyslexia do not just concern itself with those students on ITE programmes but other professional courses such as nursing. Wiles (2001) and Watkinson (2002) both recognise an under representation of research in the field of</p>	<p>3</p>

dyslexia?	nursing and suggest that the nursing media has a recognisable absence of evidence of how dyslexic clinicians can be competent practitioners leading to what they call to anecdotal rhetoric.	
Would you recommend that an ITE student with dyslexia disclose their disability to their placement school? Why? Why not? Would you recommend someone with dyslexia to disclose their disability on a teaching job application form? Why? Why not?	Despite the introduction of legislation identified earlier in this chapter, Beverton, Riddick, Dingley, English and Gallannaugh (2008) assert that when applying for ITT courses and teaching positions, many people with dyslexia still fear discrimination and are reluctant to disclose.	3
If someone applied for a teaching vacancy and disclosed having dyslexia would that influence your decision, in any way, to invite them to interview? If they informed you only at the point of interview, would this influence your choice of candidate, in any way, for the position?	For Griffiths (2011) whilst some stakeholders recognise the potential benefits that dyslexic teachers can bring to the profession: They are often seen as threats to standards and a burden, requiring extra work rather than a valuable source to promote understanding and acceptance of disability in schools (Griffiths 2011, p.2)	3
Questions given to those participants who disclosed that they have dyslexia during the interview process		
When were you first diagnosed with	Singleton, Cottrell, Gilroy, Goodwin, Hetherington, Jameson, Laycock, McLoughlin,	1

<p>dyslexia?</p> <p>What support did you receive following diagnosis? Primary school, secondary school, HE?</p>	<p>Peer, Pumfrey, Reid, Stacey, Waterfield and Zdzienski (1999) would suggest that the number of people with dyslexia is increasing and that there are three principal reasons for this: earlier identification of school children; increased support, within HE, and wider access for mature students.</p>	
<p>What are the characteristics of dyslexia, for you personally?</p>	<p>Despite the varying definitions given to explain the phenomena of dyslexia, it is my belief that every person with dyslexia is different and should be treated as an individual.</p>	<p>1, 2</p>
<p>When did you decide to pursue a career in teaching?</p> <p>What influenced your decision to choose teaching as your profession?</p>	<p>Phase 1 data results indicated that a high proportion of stakeholders saw ITE students with dyslexia as being role models to children. This question seeks establish if this is a reason those with dyslexia give for entering the profession</p>	<p>2</p>
<p>Prior to starting teaching, what challenges did you think you may face specifically in terms of teaching practice? Have these been borne out? What strategies have you employed to overcome these difficulties?</p>	<p>Farmer, Riddick and Sterling (2002) identified several issues that may present particular challenge to dyslexic students. These include: reading and memory tasks, written assessments, different types of organisational skills, oral language and the skills tests.</p>	<p>2</p>
<p>As a person with dyslexia, do you think that you bring any particular strengths to the</p>	<p>Many people with dyslexia show talents such as creativity and visuospatial abilities (Attree, Turner and Cowell 2009) which are actively sought by employers and the</p>	<p>2, 3</p>

<p>teaching profession? If so, what are these and why?</p>	<p>same factors that cause literacy difficulties may also be responsible for highlighting positive attributes - such as problem solving which can lead to more originality and creativity (Schloss 1999).</p>	
<p>Do you think having dyslexia impacts on your own classroom practice? Can you give examples?</p>	<p>In research undertaken by the University of Southampton respondents indicated that as dyslexic teachers they showed the usefulness of having an awareness of different teaching approaches, such as multi-sensory teaching, when teaching children with SEN</p>	<p>2, 3</p>
<p>Have you ever disclosed your disability whilst applying for teaching positions? If so, who did you disclose to?</p> <p>What is your perception of their response to your disclosure?</p> <p>Would you disclose to prior to future job applications? Why? Why not?</p>	<p>For those on an ITE programme, there appears to be a wider professional tension due to concerns that:</p> <p>The drive for high literacy standards will be compromised if teachers with 'weaker' literacy standards are employed (Riddick 2003, p.390)</p>	<p>3</p>

Appendix 5 – Example revised/final interview schedule

Interview schedule – ITE staff

Explain purpose of the study, read ethical guidelines, complete consent form.

Section 1: General demographic questions:	Link to research objective
How many years have you worked in education?	4
Which is your current position in school/the department?	4
As you are aware this study is about dyslexia, do you have relatives, friends or colleagues with dyslexia? If yes, how would you describe your level of contact with these individuals e.g frequency?	4
Do you have a diagnosed disability yourself that you are willing to disclose? <i>(If dyslexia is disclosed also ask questions from Section 5)</i>	4
What is the highest qualification that you have been awarded?	4
Section 2 – Awareness and understanding of the term dyslexia	
Did you ever read about/ receive any training about dyslexia in your own studies? If yes, please elaborate further.	1
When did you first become aware of the term dyslexia?	1
How would you define dyslexia? What meaning does the word “dyslexia” have for you? Characteristics?	1
Do you believe that dyslexia “exists”?	1
What do you think causes dyslexia?	1
Have you ever been a mentor/ULT for a student with dyslexia? Can you describe your experiences?	1, 2

Section 3: Perceived strengths and challenges	
What 3 words would you give to describe a student with dyslexia training to be a teacher? (Discuss the terms provided). Are these different to the words you would use to describe someone training to teach without dyslexia? Why? Why not?	2
Are there any specific strengths that you believe that people with dyslexia bring to the teaching profession?	2
Is there anything that concerns you about a person with dyslexia entering the teaching profession?	2
Some authors believe that people with dyslexia are more likely to be inclusive in their classroom practice. Would you agree/disagree? Why/why not?	2
Some authors believe that people with dyslexia are more likely to be more creative? What do you think about this? Would you agree/disagree? Why/why not?	2
Some people suggest that those with dyslexia are good role models for children with dyslexia. How do you feel about this claim?	2
Section 4; Employability	
Do you think people with dyslexia can teach all ages and subjects?	3
Overall, you think students with dyslexia should enter the teaching profession? Can you explain your answer?	3
Are there any professions which may present challenges to someone with dyslexia?	3
Would you recommend that an ITE student with dyslexia disclose their disability to their placement school? Why? Why not?	3
Would you recommend someone with dyslexia to disclose their disability on a teaching job application form? Why? Why not?	3

If two people applied for a teaching vacancy and one disclosed having dyslexia would that influence your decision, in any way, to invite them to interview? If they informed you only at the point of interview, would this influence your choice of candidate, in any way, for the position?	3
Section 5: Personal experiences of dyslexia Only to be asked to those disclosing dyslexia	
When were you first diagnosed with dyslexia?	1
What are the characteristics of dyslexia, for you personally?	1
When did you decide to pursue a career in teaching? What was the reaction of friends/family to this decision? What influenced your decision to choose teaching as your profession?	2
Prior to starting teaching, what challenges did you think you may face specifically in terms of teaching practice? Have these been borne out? What strategies have you employed to overcome these difficulties? Depending on responses to this question further questions may include: <i>Do you write your own lesson plans or do you look for plans already produced? What happens when/if a lesson doesn't run to plan? How do you manage this? How does this make you feel?</i> <i>How would you rate your confidence level of writing on a board?</i> <i>How do you prepare for writing on a board, if at all?</i> <i>Do you have any difficulties when writing on a board? If so, what are these?</i> <i>Do you ever ask children to write on the board? Why?</i> <i>What strategies do you use when marking children's work?</i> <i>Can you talk through how you complete the process of writing a letter to a parent?</i> <i>Can you recall of the children's names in the class/sets that you teach?</i> <i>What strategies do you use to learn the names of the children in your class?</i>	2
As a person with dyslexia, do you think that you bring any particular strengths to the teaching profession? If so, what are these and why?	2
Do you think having dyslexia impacts on your own classroom practice? Can you give examples?	2

Appendix 6 – Key content/criteria deemed ethically necessary for inclusion in covering letter

- The name and position/role of the researcher and who is funding it
- A description of the purpose and procedure of the research
- Where the results will be published/disseminated and who is likely to have access to them
- An offer to provide a summary of findings
- What will be expected of them if they agree to participate and how long their participation will take
- An indication of any risks associated with participation
- A statement that participation is voluntary with clear identification that they:
 - do not *have* to participate and
 - having agreed to participate can withdraw any time without any repercussions
- Details on how they can contact the researcher – should further details on differing aspects of the research, not covered in the letter, wish to be discussed.

Appendix 7 - Summary of project given to participants

Information Sheet

My name is Sarah Charles. I am currently undertaking my Ed.D at the University of Derby. Study for the Ed.D has been undertaken as part of my professional development as well as for personal interest. This research is not funded by the University of Derby although the university does contribute a small percentage to my tuition fees.

This research forms part of my final thesis and constitutes an examination of stakeholder attitudes towards those people with dyslexia, training to become classroom teachers, studying on Initial Teaching Education degree programmes.

The aim of the research is to investigate whether there are differences in the nature of the attitudes displayed, by different stakeholders, towards those with dyslexia training to be teachers. Do any of the stakeholder groups show more or less positive/negative attitudes than others? Are there any demographic influences on the nature of the attitudes held? What might be the potential impact of these attitudes on disclosure of dyslexia and future employability?

The research has two key phases of data collection. Phase 1 involves the implementation of online questionnaires to investigate attitudes/beliefs held towards those with dyslexia training to be teachers. The second phase of data collection involves the use of individual, semi-structured interviews which aim to investigate, in more depth, some of the questions asked in the questionnaires

The results of the research will be published within a copy of the thesis which will be displayed in the library of the University of Derby. The results will also be used to support a publication to a peer reviewed journal. People who work within the realm of education, classroom practitioners, school leadership teams, as well as those interested in the area of SEN and Disability will likely to access the results.

A summary of the key findings, of each stage of the data collection process, is available to all participants. A copy of key findings will be provided to anyone sending an email request to s.charles@derby.ac.uk

Should you agree to participate in this research, involvement in Phase 1 of data collection, the questionnaires, is likely to take between 10-20 minutes of your time. Involvement in Phase 2 of the data collection, the interviews, is likely to take 30-60 minutes for the interview and then a further 30-60 minutes to read through the transcript that will be provided for checking and confirmation that it represents a true reflection of the interview.

Involvement in this research is not intended to bring about harm to any participant. However, psychological effects may arise due to questioning about this issue and this research may raise questions that you had not previously considered. Support is available from wellbeing@derby.ac.uk (01332 592000) should you feel that counselling/support is needed. Contact may also be made the British Dyslexia Association on 0333 405 4555.

Participation in this research, at Phase 1 and Phase 2, is voluntary. You do not have to participate and should you choose to participate, you can withdraw at any time.

Should you wish to gain further information about the nature, design or purpose of this research, please email s.charles@derby.ac.uk or telephone 01332 592399.

Kind regards

Sarah Charles

Appendix 8 – Ethics form

Request for Ethical Approval for Individual Study / Programme of Research by University Students

Please complete this form and return it to your Independent Studies Supervisor or Co-ordinator as advised by local guidance. Feedback on your application will be via your Independent Studies Supervisor or Co-ordinator

1. Your Name:	Sarah Charles	2. Programme name and code	Ed.D PX3AA
3. Contact Info	Email: s.charles@derby.ac.uk Tel No. 07827 323668 Address:		
4. Module name and code	8EU007 Independent Studies		
5. Name of project supervisor (Director of Studies) Jill Bunce			
6. Title or topic area of proposed study			
<p>Can't Spell, Can't Teach?</p> <p>An examination of Stakeholder attitudes towards students, with dyslexia, training to be primary teachers.</p>			
7. What is the aim and objectives of your study?			
<p>The emerging key aims of the work based project (WBP)are:</p> <ul style="list-style-type: none"> • To explore the the level of understanding and awareness of dyslexia amongst a range of stakeholders involved in ITE • To identify perceived strengths and challenges, held by stakeholders, of those training to be teachers, with dyslexia • To establish whether perceptions of attitudes may influence decisions to disclose dyslexia • To investigate whether attitudes held by stakeholders may impact on the employability of trainee teachers with dyslexia. • To explore potential tension between promoting inclusive practice and meeting professional standards • To establish whether attitudes held by a range of stakeholders are positive, negative or neutral and 			

potential influences on these attitudes

- To identify perceived/real challenges and barriers faced by ITE students with dyslexia (as a consequence of their dyslexia)
- To explore potential tension between promoting inclusive practice and meeting professional standards

Anticipated outcomes are:

- A better understanding existing stakeholder attitudes towards those with dyslexia - whether these are positive, neutral or negative
- Factors which may influence these attitudes
- Increased awareness of the perceived strengths and challenges faced by those with dyslexia
- Increased stakeholder understanding of the legal rights of ITE students with dyslexia e.g. reasonable adjustments and how this link to professional standards
- An understanding of whether those in positions of authority are influenced by disclosure e.g. in terms of employability
- Establishment of whether there is a need for dyslexia awareness training within the field of education, in relation to adult learners.

8. Brief review of relevant literature and rationale for study (attach on a separate sheet references of approximately 6 key publications, it is not necessary to attach copies of the publications)

Rationale for study

The overarching focus of the work based project (WBP) is to explore attitudes of stakeholders involved in Initial teacher Education (ITE) specifically in light of issues raised by school partners (mentors and Headteachers) of the respective students' suitability to teach and the current professional tension that:

The drive for high literacy standards will be compromised if teachers with 'weaker' literacy standards are employed (Riddick, 2003, p.390)

Reid, G. (2009) (4th Ed) *Dyslexia, A Practitioner's Handbook* West Sussex: Wiley-

Blackwell

The main purpose of this text is to incorporate the most recent theoretical and practical research in the field of dyslexia and present it in a user friendly format for practitioners. It refers to the most recent government reports on dyslexia in a number of countries such as, USA, UK, Canada, New Zealand and Australia. A consideration of wider international perspectives will enable me to set my research into a global context and will inform my own understanding of the disability. While placing an emphasis on inclusion and meeting the needs of all within the mainstream system, the book also looks at best practice in specialised provision, focusing, in particular, on individualised approaches.

Chapters examine primary, secondary and adult education however this latter section is rather limiting and certainly does not address the professional needs of students on ITE courses.

Pollak, D. (2005) *Dyslexia, The Self and Higher Education*, Staffordshire: Trentham

Pollak presents an historical examination of dyslexia and the corresponding educational response that will serve to inform my own understanding of how the term and diagnosis has changed. The text considers the impact of labelling an individual as dyslexic via an examination of life histories of dyslexic students themselves. The book raises my awareness of some of the ethical issues relating to my research and the need for me to recognise the socio-emotional effects of dyslexia and the impact of labelling on the self and identity of students.

Pavey, B., Meehan, M. and Waugh, A. (2010) *Dyslexia-Friendly Further and Higher Education* London: Sage

This text presents as a practical guide for practitioners supporting students in FE and HE. It recognises the importance and impact of dyslexia friendly procedures and provides clear guidance on how these procedures can be implemented. This text will allow me to place the needs of dyslexic ITE students into the wider context of students with dyslexia studying at HE level. As the students on ITE courses are studying courses comprised of both academic as well as professional skills, I must endeavour not to ignore provision for the academic skill set (however this will a main focus for the WBP). Basic skills that will aid the transition between study and employment are examined, this may prove useful when the need for reasonable adjustments. However, as with the previous text, little is said concerning the needs of students on professional placements such as those on ITE and medical courses, this highlights a gap in this area of study.

Riddick, B. (2003) *Experiences of Trainee Teachers Who are Dyslexic*. *International Journal of Inclusive Education* 7:4 pp389-402

Riddick's research paper constitutes a good starting point -specifically examining the needs of dyslexic learners on ITE programmes. A limitation of the study is that only a sample of 5 trainee teachers were interviewed with regard to their experiences which calls into question generalisability. Nor does the report look explicitly at attitudes of stakeholders. At times the report is somewhat of a narrative and no model of support is suggested based on the different needs and experiences of the teachers interviewed. However the report does highlight the need in my study to consider how the needs and coping strategies used by dyslexic trainee teachers compare to those of non-dyslexic ITE trainee teachers to support them to successfully meet the T standards. The report also identifies how the past histories and experiences of schooling as children themselves, influenced the trainees own desire to train as teachers and whether to disclose their disability or not to educators on their ITE programmes and their school mentors.

Morgan, E. and Burn, E. (2000) *Three Perspectives on Supporting a Dyslexic Trainee Teacher in*

Innovations in Education and Teaching International 32:2 pp172-177

Morgan and Burn seek to examine the challenges faced by a single ITE student with dyslexia as identified from three perspectives – the student herself, an academic tutor and a member of the student support team at the university. This relates to my study as I will also seek to examine stakeholder attitudes towards students, with dyslexia, from a number of perspectives. It is interesting though how Morgan and Burn omit school based trainers in their examination of perspectives as I believe that school based trainers play a fundamental role in the training of ITE students. School based partners and their perspectives of the strengths, challenges and support needs of dyslexic ITE students will be addressed throughout my study.

White, J. (2007) *Supporting nursing students with dyslexia in clinical practice*. Nursing Standard. 21,19: 35-42.

Whilst the WBP with focus on the needs of ITE students, with dyslexia, on professional placement, it is evident that dyslexia affects individuals pursuing a multiplicity of professions. Comparisons may be drawn with, for example, those on nursing courses and the needs of nurses whilst on placement.

White seeks to determine whether pre-registration nursing students with dyslexia experience specific problems in developing clinical competence, identify what strategies they use and how they may be supported in clinical practice. This has clear links with my own WBP as I will be seeking to establish the perceived challenges stakeholders believe those with dyslexia will face in meeting their professional set of standards. White's research is also of relevance as a similar research method – qualitative case studies – was used, albeit with a much smaller sample of participants.

Elliott, G. J. and Gibbs, S. (2008) *Does Dyslexia Exist?* Journal of Philosophy of Education 42, 3-4: 475-491.

Controversial theories related to the notion of dyslexia and its existence will need examination as my WBP rests on the belief that it does indeed exist. It is therefore, of great importance to examine and present, within the context of the literature review, theorists and their claims that dyslexia is nothing more than a myth and excuse for poor reading and poor teaching as indeed do Elliott and Gibbs. Whilst the aim of the WBP is not to prove or disprove the existence of dyslexia such contentious views will need examination.

Further relevant texts include:

- Adams, M. And Brown, S. (2007) *Towards Inclusive Teacher in Higher Education*. London: Routledge
- Carroll, J.M., and Iles, J, E. (2006) An assessment of anxiety levels in dyslexic students in higher education In *British Journal of Educational Psychology* Vol 76: 651-662
- Elliott, J. (2005) The Dyslexia debate continues In *The Psychologist Volume 18 (12) pp 728-730* http://www.thepsychologist.org.uk/archive/archive_home.cfm?volumeID=18andeditionID=130andrticleID=959
- Farmer, M., Riddick, B. and Sterling, C. (2002) *Dyslexia and Inclusion: Assessment and Support in Higher Education*. London: Whurr
- Jamieson, C. and Morgan, E. (2008) *Managing Dyslexia at University*. Oxon: Routledge
- Pumfrey, D., and Reason, R. (1991) *Specific learning difficulties (Dyslexia): Challenges and responses*. London: Routledge
- Reid, G. (2008) *The Routledge Companion to Dyslexia*. London: Routledge
- TDA (2009) *Guidance to Accompany the Professional Standards for QTS and Requirements for ITT*. London: TDA

9. Outline of study design and methods

Punch suggests that “Education research is a political process” and as such, the methods and approaches employed to research it must reflect that claim.

Qualitative researchers seek to understand human beings through an exploration of the meanings given to events and experiences by the participants. Kincheloe (1991) defines qualitative research as being concerned with experience as it is ‘lived’, ‘felt’ or ‘undergone’.

Reflection lies at the heart of professional development and by extension qualitative research is an integral part of reflection. As the research question is primarily concerned with individual’s attitudes (Griffen and Pollack 2009), the study is carried out within the interpretivist paradigm, based on the belief that different people can view events differently (Denscombe 2007). Furthermore, much of the data to be collected is mainly verbal, being richer linguistically than positivist data, which is more reliant upon quantitative, statistical analysis.

A ‘research-then-theory’ approach will be adopted (Henn, Weinstein and Foard 2009: 16) as an exploratory inquiry to generate theory rather than predict an outcome (Creswell 2003) and ‘to learn something new rather than test something that is known’ (Richards 2009: 13).

Set within the qualitative research design, I have given much consideration to what Denzin and Lincoln

(1994) claim as inquiry paradigms. They each address 3 fundamental questions:

- 1) The ontological question – what is the form and nature of reality and, therefore, what is there that can be known about it? What reality is like.
- 2) The epistemological question – what is the relationship between the knower and what can be known? What is the relationship between the researcher and that reality.
- 3) The methodological question – how can the inquirer go about finding out what can be known? What methods can be used for studying the reality.

Data collection

For the purpose of this research the following data collection methods:

- Questionnaires
- Semi-structured interviews

These data collection instruments will be used effectively to answer the research questions posed with a variety of participants. They provide the opportunity to validate the research by triangulation (Punch 2009). Gathering evidence from different sources enables cross-referencing of data and take into account views from different groups of respondents. It is important to check the validity of results from more than one perspective.

The research instruments adopted will provide reliable and valid data. To ensure reliability all participants will be given copies of the same questionnaire. Those involved in the interviews will do so, where possible, in the same setting and with the same interviewer. The implementation of such systems and controls will strive to ensure maximum reliability of data gathered. The questionnaires and interviews conducted with the students, school partners, tutors and support staff will seek to establish their own attitudes towards dyslexic ITE students training to become teachers. Subsequently the findings should remain focused and relevant to the area of enquiry.

Questionnaires

Questionnaires can help to ensure that the issues of reliability and validity are addressed. Through careful wording and the piloting of questions the objectives of the research can be met. To ensure the validity, clarity and practicability of the questionnaire, it will be piloted with a small group of people, and questions/layout will be amended as appropriate (Clough and Newton 2007).

Semi-structured interviews

These will take the form of either individual interviews or small focus groups. This is an appropriate way of triangulating information and clarifying issues that rise out of the questionnaires and the analysis of

admissions policies and support plans - they allow the researcher to gain a richness of response not possible through questionnaires alone, where non-verbal communication is lost and the possible development of ideas curtailed, whilst giving the participants the opportunity to extend opinions/answers given in the questionnaires.

Munn and Drever (1990) describe interviews on a 'continuum of formality' with the formalised interview at one end of the scale and the informal interview at the other. In the latter, the process is shaped completely by individual responses. Semi-structured interviews provide a balance. They are very flexible and can provide rich data. Despite taking time to plan and analyse they are a valuable way through which to validate data collected from other instruments. The use of semi-structured interviews allows for some digression, should issues arise during the interview process, but ultimately they provide a more coherent framework of questions that the interviewer can ask all participants in order to establish general views, commonality/trends towards certain phenomena, ideas or beliefs, to probe responses, challenge motives and feelings, therefore eliciting richer information than in a written response alone (Punch 2009).

The interviews will be recorded. This should allow easier transcription and a reference point to which one can turn to reconsider evidence and clarify responses where necessary. It will also provide an opportunity to check my approach/technique to ensure a degree of consistency.

10. Research Ethics

PROPOSALS INVOLVING HUMAN PARTICIPANTS MUST ADDRESS QUESTIONS 10 - 14.

Does the proposed study entail ethical considerations Yes / No (please circle as appropriate)

If 'No' provide a statement below to support this position.

If 'Yes' move on to Question 11.

11. Ethical Considerations: Please indicate how you intend to address each of the following in your study. Points a - i relate particularly to projects involving human participants.

Guidance to completing this section of the form is provided at the end of the document.

As O'Leary (2004, p.50) points out, researchers are unconditionally responsible for the integrity of all aspects of the research process.

Ethical considerations come into every aspect of the research from its design through to its dissemination. Bassey (1999) argues that there are 3 major ethical values:

- Respect for democracy
- Respect for truth
- Respect for persons

"Ethical issues are intertwined with knowledge through the values individuals hold and the processes of research." Burgess et al (2006, p.34)

This research will adhere to the 'Research Code of Ethics' (University of Derby 2002) and BERAs (2004) 'Revised Ethical Guidelines for Educational Research'.

a. Consent

Clear evidence will be obtained that the participant has given informed consent to take part in the study. This will be in the form of a signed consent form. Where participants are asked to complete and return a questionnaire, the questionnaire will be accompanied by a covering letter (see attached example framework – Appendix A)

b. Deception

Participants will be told only the truth about the purpose of the study, the corresponding aims and possible implications of involvement. I will not use omission or commission techniques to illicit particular results/information.

c. Debriefing

To debrief the participants I will explain to each of them individually the nature of the study, and say why I did what I did. I will endeavor to ensure that they understand what I have told them and I will give them the opportunity to ask any questions that they want answered. I will reassure them, if necessary, about any fears that they may have had.

I recognise that, sometimes, in the course of debriefing, participants may explain that they did not understand some part of the procedure, or they may point out some flaw in the design that I am not aware of. By using a debrief in this way, I will emphasise the fact that the participants take part in the research process, and that they are not 'subjects'.

d. Withdrawal from the investigation

Participants will be clearly informed that they have the *right to withdraw* at any stage in the research process. If a participant chooses to withdraw from the research process, they will not be *pressured* and/or *coerced* in any way to try and stop them from withdrawing.

e. Confidentiality

Participants have a right to expect that any information that I collect on them is kept confidential. When collecting sensitive data, I will ensure that participant's names are not recorded next to the data. All questionnaires will remain anonymous thus protecting confidentiality

f. Protection of participants

I will need to protect my participants from both psychological and physical harm. I will need to consider the types of things that might cause stress for some people and should therefore be avoided. I will go to all possible lengths to minimise this risk e.g. I will consider how people of different backgrounds, viewpoints or religions might view the research procedure. I will need to consider the emotive effects of labelling someone with a disability and consider, carefully, my role as tutor on a course on which they study and the implications this may have on relationships etc.

g. Observation research [complete if applicable]

h. Giving advice

No advice will be given directly to participants of this study as this may negate impartiality and professionalism. General recommendations, however, will be provided in the final written thesis and good practice (e.g. model of support) will be disseminated to key audiences.

As this is a sensitive area of study, I will signpost participants to qualified staff/professionals for support/guidance, as appropriate.

i. Research undertaken in public places [complete if applicable]

j. Data protection

To comply with the Data Protection Act (1998), I will ensure that:

1. The information is being used is *exclusively* for research purposes
2. I am not using the information to support measures or decisions relating to *any* identifiable living individual.
3. I am not using the data in a way that will cause, or is likely to cause, substantial damage or substantial distress to any data subject.

4. I will not make the result of my research, or any resulting statistics, available in a form that identifies the participants.

I will also inform participants of:

1. What I am doing with the data;
2. Who will hold the data
3. Who will have access to or receive copies of the data.

I will ensure that all electronic data is kept securely on a password locked storage device/computer and that any paper based data is secured in a locked cabinet.

k. Animal Rights [complete if applicable]

l. Environmental protection [complete if applicable]

12. Sample: Please provide a detailed description of the study sample, covering selection, number, age, and if appropriate, inclusion and exclusion criteria.

Students –300 active students on the undergraduate and post graduate ITE programmes,

School Staff - Given that the institution, involved in this study, actively engages with 250 schools each academic year, using the work of Krejcie and Morgan (1970), and building in a 20% attrition and mortality rate, 150 schools would be contacted for the purpose of the study. The person contacted, via email, is determined to be the individual in charge of planning for and supporting the ITE student experience in their given school. As a result this sample group will consist of Headteachers, Deputy Headteachers, Assistant Headteachers, Senior teachers and class teachers.

University academics - Lecturers employed within a School of Education, on the ITE programmes (both undergraduate and post graduate routes into teaching). This sample group will comprise of 20 senior lecturers, including Programme Leaders, Assistant Head and Head of Department.

Parents/carers – Parents are an important stakeholder within the domain of education and therefore it is deemed essential to gather responses from parents. Gaining access to parents may prove difficult as the researcher does not work within a school setting. 20 schools will be randomly selected from the list of partnerships schools which take ITE students and support in their training. to online resources, low levels of parental engagement within the school.

13. Are payments or rewards/incentives going to be made to the participants? If so, please give details below.

N/A

14. What study materials will you use? (Please give full details here of validated scales, bespoke questionnaires, interview schedules, focus group schedules etc. and attach all materials to the application)

Questionnaires and interview schedules will be needed.

15. What resources will you require? (e.g. psychometric scales, equipment, such as video camera, specialised software, access to specialist facilities, such as microbiological containment laboratories).

A digital voice recorder will be used to record all interviews/focus group activities undertaken.

A transcriber will be employed to transcribe all recordings taken.

Use of NVivo is need to code and aid in the analysis of data

16. Have / Do you intend to request ethical approval from any other body/organisation ? No
(please circle as appropriate)

If 'Yes' – please give details below.

17. The information supplied is, to the best of my knowledge and belief, accurate. I clearly understand my obligations and the rights of the participants. I agree to act at all times in accordance with University of Derby Code of Practice on Research Ethics

<http://www.derby.ac.uk/research/ethics/policy-document>

Date of submission...19th September 2011.

Signature of applicant...S. Charles

Signature of project supervisor (Director of Studies) ...J. Bunce

Appendix 9 - Informed Consent agreement

I, the undersigned, confirm that (please tick box as appropriate):

1.	I have read and understood the information about the research, as provided in the Information Sheet	<input type="checkbox"/>
2.	I have been given the opportunity to ask questions about the research and my participation.	<input type="checkbox"/>
3.	I voluntarily agree to participate in the research.	<input type="checkbox"/>
4.	I understand I can withdraw at any time without giving reasons and that I will not be penalised for withdrawing nor will I be questioned on why I have withdrawn.	<input type="checkbox"/>
5.	The procedures regarding confidentiality have been clearly explained (e.g. use of names, pseudonyms, anonymisation of data, etc.) to me.	<input type="checkbox"/>
6.	If applicable, separate terms of consent for interviews, audio, video or other forms of data collection have been explained and provided to me.	<input type="checkbox"/>
7.	The use of the data in research, publications, sharing and archiving has been explained to me.	<input type="checkbox"/>
8.	Select only one of the following: <ul style="list-style-type: none"> • I would like my name used and understand what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognised. • I do not want my name used in this research. 	<input type="checkbox"/>
		<input type="checkbox"/>
9.	I, along with the Researcher, agree to sign and date this informed consent form.	<input type="checkbox"/>

Participant:

Name of Participant

Signature

Date

Researcher:

Name of Researcher

Signature

Date

Appendix 10 - Example overview of research and contact details for questionnaire participants

An investigation into school staff attitudes towards trainee teachers with dyslexia

This survey seeks to investigate whether different stakeholders, involved in Initial Teacher Education, hold positive, neutral or negative attitudes towards trainee teachers with dyslexia.

The research forms the basis of my Ed.D thesis and follows the recommended ethical guidelines as set out by BERA (2011) and the University Of Derby 'Research Code of Ethics' (2011). As a result, the following assurances can be given:

1. All questionnaires are completely anonymous.
2. You have the right to withdraw from the research process at any time. Only complete questionnaires will be included in the study.
3. All data obtained will remain confidential.

Should you wish to ask further questions regarding the aims of the research or the research process please email s.charles@derby.ac.uk

Many thanks for taking the time to complete this questionnaire. The questionnaire should take approximately 10-20 minutes to complete.

Appendix 11 - Timetable of continued consent

During completion of questionnaires	Partially completed questionnaires were deemed to signal withdrawal from the research process and so all data from partially completed questionnaires was omitted from the results/analysis.
Prior to interviews	Participants asked to sign a reply slip indicating that they had read the ethical considerations associated with the study (see Appendix 9).
Day of interview	On the day of the interview, participants were reminded, verbally, of their right to withdraw and they were asked to confirm, verbally, that they gave continued consent. Participants were informed that they could provide a non-response, to questions that made them feel uncomfortable in any way.
Following the interviews	Transcripts were sent for checking, participants were reminded, of informed consent of their material to be included in this study and that this could be withdrawn.

Appendix 12 - Transcriber Confidentiality Agreement

An examination of stakeholder attitudes towards students, with dyslexia, studying on ITE programmes.

This research is being undertaken by Sarah Charles in the College of Education, University of Derby, for her final thesis for the award of Ed.D.

As a transcriber of this research, I understand that I will be hearing recordings of confidential interviews. The information on these recordings has been revealed by interviewees who agreed to participate in this research on the condition that their interviews would remain strictly confidential. I understand that I have a responsibility to honour this confidentiality agreement.

I agree not to share any information on these recordings, about any party, with anyone except the Researcher of this project (Sarah Charles). Any violation of this and the terms detailed below would constitute a serious breach of ethical standards and I confirm that I will adhere to the agreement in full.

I, _____ agree to:

1. Keep all the research information shared with me confidential by not discussing or sharing the content of the interviews in any form or format (e.g. WAV files, MPEG files, memory stick, transcripts) with anyone other than the Researcher (Sarah Charles).
2. Keep all research information in any form or format (e.g. WAV files, MPEG files, memory stick, transcripts) secure while it is in my possession.
3. Return all research information in any form or format (e.g. WAV files, MPEG files, memory stick, transcripts) to the Researcher (Sarah Charles) when I have completed the transcription tasks.

4. After consulting with the Researcher (Sarah Charles), erase or destroy all research information in any form or format regarding this research project that is not returnable to the Researcher (e.g. information stored on my computer hard drive).

Transcriber –

Print Name: _____

Signed: _____

Date: _____

Appendix 13 - Key demographic characteristics of interview respondents

Participant pseudonym	Stakeholder group/position	Gender	Age	Highest Qualification	Disability disclosed?
Jayne	ITE staff – Senior Lecturer	Female	41-50	Masters	No
Emily	ITE staff - Senior Lecturer	Female	31-40	Masters	No
Lyndsay	ITE staff - Senior Lecturer	Female	41-50	Masters	No
Zoe	School staff – Headteacher	Female	31-40	PGCE	No
Ellen	School staff – Headteacher	Female	41-50	PGCE	No
Stephen	School staff – Headteacher	Male	41-50	BEd	No
Harriet	ITE student	Female	21-30	BA(Hons)	No
Wendy	ITE student	Female	21-30	BA(Hons)	Yes
Jack	ITE Student	Male	21-30	A Levels	No
Alice	Parent	Female	31-40	A Levels	No
Paul	Parent	Male	31-40	Diploma	No

Appendix 14 – Example of coding of questionnaire qualitative data using content analysis

Key word/phrase	Code
Learning difficulty/difficulties/problems with...	D1
Barrier to learning	D2
Disorder	D3
Condition	D4
Struggles	D5
Sufferers/suffers	D6
Reading including comprehension/understanding of text	D7
Interpreting of words, symbols and/or letters	D8
Writing	D9
Spelling	D10
Speech/verbal language/communication	D11
Decoding words	D12
Memory/recall	D13
Maths/numeracy/numbers	D14
Literacy/English skills	D15

Mixing up words/letters	D16
Processing –visual – seeing things differently, how see words/letters, words moving around on page	D17
Processing – information	D18
Processing – verbal	D19
Processing cognitive	D20
Processing language	D21
Organisational skills	D22
Self esteem	D23
phonological development	D24
Balance/coordination/physical issues	D25
Lifelong	D26
Complicated area/term/complex/many aspects	D27
Holistic	D28
Different experiences/difficulties faced by people	D29
Other talents/abilities/strengths	D30
Not affect intelligence/inconsistent with intelligence	D31
Lower ability	D32

Example of Colour/numerical coding of definitions – School staff

someone who has difficulty processing how they see letters but they still have many talents that should be celebrated	D1, D17, D30
Difficulties in spelling and numbers	D1, D10, D14
It means that reading, writing, number, organisation etc. are made more difficult due to words, letters and numbers appearing jumbled, moving, reversed etc.	D7, D9, D14, D22, D1, D17
difficulty acquiring basic reading and spelling skills.	D1, D7, D10
Difficulty with recognising word	D1, D7
Specific Learning Disability to do with both reading and writing.	D1, D7, D9
difficulty spelling. Some difficulties with coordination	D1, D10, D25
problems with spelling	D1, D10
Difficulty with spelling	D1, D10
A disorder linked to reading / writing. It may affect co-ordination.	D3, D7, D9, D25
A disorder linked to reading/word recognition.	D3, D7
Dyslexia is a disorder. People with dyslexia have difficulties in reading and writing.	D3, D1, D7, D9
Difficulty decoding words.	D1, D12
Difficulty with reading and spelling words.	D1, D7, D10
Difficulties with reading, writing and spelling	D1, D7, D9, D10
Difficulty reading and spelling	D1, D7, D10

Difficulties reading text and spelling	D1, D7, D10
Difficulties with spelling, organisation	D1, D10, D22
Spelling difficulties	D10, D1
Difficulties with all aspects of literacy including spelling, reading and writing	D1, D15, D10, D7, D9
Difficulties with reading, words jumbled up, problems with writing and spelling. Organisational issues.	D1, D7, D16, D9, D10, D22
Difficulties with all aspects of literacy - spelling, reading and writing	D1, D15, D10, D7, D9
A person who sees text in a different way to others. Struggles with spelling	D17, D5, D10
Difficulties decoding of words	D1, D12
Spelling difficulties	D10, D1
A condition affecting spelling and reading.	D4, D10, D7
Struggles with the reading and writing of words	D5, D7, D9
Someone who can't spell	D10

Appendix 15 - Generation of themes

Word/phrase	Students	% of student comments	School staff	% of School staff comments	ITE staff	% of ITE staff comments	Parents	% of parental comments
Committed	4	1	5	2	0	0	0	0
Dedicated	1	0	1	0	0	0	0	0
Determined	27	10	25	10	5	9	7	9
Determined to not let a disability to affect their ambition	1	0	0	0	0	0	0	0
Hard working	10	4	11	5	3	6	3	4
Positive work ethic	43	16	43	18	8	15	10	13
Aims to challenge prejudice/stereotypes	2	1	0	0	0	0	0	0
Brave	36	13	26	11	2	4	9	12
Caring	3	1	0	0	0	0	0	0
Courageous	4	1	0	0	1	2	1	1
Creative	12	4	7	3	1	2	9	12
Empathetic	7	3	7	3	0	0	1	1
Gifted in other areas	1	0	0	0	0	0	0	0
Inspirational	2	1	1	0	0	0	0	0
Inspiring	0	0	3	1	0	0	0	0
More likely to relate to learners with dyslexia in their class.	1	0	0	0	0	0	0	0
optimistic	7	3	0	0	0	0	0	0
Passionate	0	0	4	2	0	0	0	0
Positive role model for children with disabilities-promoting 'I can' attitudes	1	0	0	0	0	0	0	0
Resilient	16	6	10	4	0	0	1	1
Resourceful	1	0	1	0	0	0	0	0
Role model	25	9	17	7	3	6	5	7
Successful	1	0	0	0	0	0	0	0
Thick skinned	0	0	1	0	0	0	0	0
Understanding	16	6	2	1	0	0	5	7
Positive traits/qualities/labelling	135	51	79	33	7	13	31	41
Unorganised/disorganised	3	1	0	0	0	0	0	0
Defensive	0	0	0	0	2	4	0	0
Unfortunate	7	3	0	0	0	0	1	1
Mad	1	0	0	0	0	0	1	1
Uses the label as excuse	1	0	3	1	0	0	0	0
Negative traits/skills/qualities	11	4	3	1	2	4	1	1
Capable	5	2	0	0	0	0	0	0
Perceived ability/competence (positive)	5	2	0	0	0	0	0	0
A risk	1	0	10	4	2	4	3	4
A risk to our children	0	0	0	0	0	0	1	1
A risk to standards	0	0	0	0	0	0	1	1
Challenged	1	0	9	4	11	20	4	5
Compromised	0	0	2	1	0	0	1	1
Have to work harder	1	0	1	0	0	0	0	0
Impact negatively on standards	0	0	8	3	0	0	0	0
Issues with quality	1	0	0	0	0	0	0	0
Less able	11	4	1	0	0	0	2	3
Likely to struggle	0	0	9	4	0	0	0	0
May struggle	0	0	1	0	0	0	0	0
May struggle to keep up the demands of daily teaching	1	0	0	0	0	0	0	0
Struggle	0	0	0	0	0	0	0	0
Struggle to teach	0	0	0	0	0	0	1	1
Struggling	8	3	7	3	0	0	0	0
Struggling to meet the demands	0	0	3	1	0	0	0	0
Perceived ability/competence (negative)	27	10	51	21	13	24	9	12
Extra support	0	0	0	0	2	4	0	0
Extra support needed	2	1	12	5	1	2	0	0
Extra support needed to achieve the same	0	0	0	0	1	2	0	0
May need additional support	2	1	0	0	0	0	0	0
More support	1	0	1	0	0	0	12	16
More support needed	23	9	17	7	11	20	0	0
Needs/need support	0	0	1	0	2	4	2	3
Needy	0	0	11	5	0	0	3	4
Reliant on others	1	0	4	0	0	0	0	0
Support needed	31	12	43	18	17	31	17	23
Can't spell	5	3	2	1	1	2	0	0
Difficulty spelling	1	0	0	0	1	2	0	0
Impaired ability to spell	0	0	0	0	0	0	0	0
Issues with spelling	1	0	0	0	1	2	0	0
Poor speller	1	0	0	0	1	2	0	0
Poor spelling	0	0	0	0	1	2	0	0
Spelling issues	1	0	0	0	1	2	0	0
Struggles with spelling	1	0	0	0	1	2	0	0
Illiterate	2	1	0	0	0	0	0	0
Poor reader	3	1	0	0	0	0	0	0
Difficulties with literacy	18	7	2	1	5	9	0	0
In the wrong job/career	0	0	12	3	2	4	5	7
In the wrong profession	0	0	0	0	0	0	1	1
Misguided	0	0	6	2	0	0	0	0
Needing career advice	0	0	2	1	0	0	0	0
Should not be a teacher	3	1	0	0	0	0	0	0
Unemployable	0	0	1	0	0	0	0	0
Unsuitable	0	0	2	0	0	0	1	1
Choice of career (negative)	0	0	22	9	2	4	7	9

Statistics generated from grouping of statements into emerging themes

Theme	Students	% of student comments	School staff	% of School staff comments	ITE staff	% of ITE staff comments	Parents	% of parental comments	Total % of comments all sample groups
Positive work ethic	43	10.9	43	18.6	8	14.8	10	13.3	16.2
Positive traits/qualities	135	46.1	79	31.7	7	13.0	31	41.3	39.3
Perceived ability/competence (positive)	5	1.9	0	0.0	0	0.0	0	0.0	0.8
Negative traits/qualities	11	4.1	3	1.2	2	3.7	1	1.3	2.6
Perceived ability/competence (negative)	27	10.1	51	20.2	13	24.1	9	12.0	15.6
Support needed	31	5.6	43	14.8	17	31.5	17	22.7	16.8
Difficulties with literacy	18	6.8	2	0.8	5	9.3	0	0.0	3.9
Choice of career (negative)	0	0.0	22	8.2	2	3.7	7	9.3	4.8

Appendix 16 – Initial coding of interview data using numerical coding: Table of codes

Question number	Code	Code meaning
How many years have you worked in education?	LS1 LS2 LS3 LS4	Length of service =12 years Length of service =17 years Length of service =18 years Length of service =22 years
Which ITE programme are you on? Stage of study?	P1 P2 P3 P4	Programme = Core PGCE Programme = BEd Programme = School Direct PGCE primary Programme = School Direct PGCE Secondary
Which is your current position in school/the department?	O1 O2 O3 O4 O6 O7 O8 O9 O10	Senior Lecturer Programme Leader Assistant Head of Department Head of Department Headteacher Deputy Headteacher Assistant Headteacher Senior Management/Leadership Team member Class teacher
As you are aware this study is about dyslexia, do you have relatives, friends or colleagues with dyslexia? If yes, how would you describe your level of contact with these individuals e.g frequency?	R1 R2 R3 R4 R5 F1 F2 F3 F4 F5	Friends Family Work Colleagues (past and present) Children/students in classes Students on placement Daily contact Weekly contact Monthly contact Yearly contact Limited contact
Sub question: Is there a reason for that (not labelling as dyslexic)	DT1 PD1 ST1 SF1 LD1 LU1 IS1 AC1 ER1	Dyslexic tendencies displayed Parental diagnosis to gain label Label as a stigma Label leading to self-fulfilling prophecy Dangers with labelling Label unhelpful Importance of support given rather than label All children have needs at some point Excludes those without label to resources

Do you have a diagnosed disability yourself that you are willing to disclose? <i>(If dyslexia is disclosed also ask questions from Section 5)</i>	DD0 DD1 DD2 DD3 DD4	No disability disclosed Disability disclosed but not identified Disability disclosed as dyslexia Disability disclosed as physical disability Disability disclosed as mental health
What is the highest qualification that you have been awarded?	Q0 Q1 Q2 Q3 Q4 Q5 Q6	A levels BA(Hons)/BSc BEd PGCE Masters Ed.D/Ph.D. Professorship
Did you ever read about/ receive any training about dyslexia in your own studies? If yes, please elaborate further	T0 T1 T2 T3 T4 RT1 CT1	No training Input on ITE/ITE programme Input on placement, in school Input as NQT Independent research Recent term Common term/widely used
Sub question: Is it a term you can ever remember being used when you were at school? Or is it a term that you've only sort of heard as you've got older and ...	UT1 FT1 RT1 TT1	Unknown term in own childhood Heard due to family member with dyslexia Recent term Term heard on ITE/ITT programme
Sub question ITE Staff 1: ... testing in schools, people who haven't achieved what they wanted to achieve?	LE1 LE2	Label used as an excuse e.g. for failure, struggling, not achieving potential People hide behind the label

<p>How would you define dyslexia? What meaning does the word “dyslexia” have for you? Characteristics?</p>	D1	Learning difficulty/difficulties/issues/problems with...
	D2	Barrier to learning
	D3	Disorder
	D4	Condition
	D5	Struggles/struggling
	D6	Sufferers/suffers
	D7	Reading including comprehension/understanding of text
	D8	Interpreting of words, symbols and/or letters Writing
	D9	Spelling
	D10	Speech/verbal language/communication
	D11	Decoding words
	D12	Memory/recall
	D13	Maths/numeracy/numbers
	D14	Literacy/English skills
	D15	Mixing up words/letters/reversals
	D16	Processing –visual – seeing things differently, how see words/letters, words moving around on page
	D17	Processing - information Processing - verbal
	D18	Processing cognitive
	D19	Processing language
	D20	Organisational skills/time management/ability to meet deadlines
	D21	Self esteem
	D22	Phonological development/awareness
	D23	Balance/coordination/physical issues
	D24	Lifelong
	D25	Complicated area/complex/many aspects/broad range of issues
	D26	Holistic
	D27	Different experiences/difficulties faced by people
	D28	Other talents/abilities/strengths
	D29	Not affect intelligence/inconsistent with intelligence Lower ability
	D30	Slower reading speed/fluency
	D31	Spectrum/continuum of severity Stress
	D32	Frustration
	D33	No single definition
	D34	Useless label – has no meaning
	D35	Learning differently
	D36	Need extensions
	D37	Study advisors/support workers
	D38	Issues/difficulties performing roles and responsibilities of teaching/demands of the profession
	D39	
	D40	

	D41 D42 D43 D44	Poor class management Get tired, tiring
Do you believe that dyslexia “exists”? Professor Julian Elliott, for example, suggests that it is a middle class label for stupidity. What do you think about such a claim?	DE0 DE1 DE2 DE3 DE4 DE5 DE6 DE7 DE8 DE9 DE10 DE11	Dyslexia does not exist Something does exist which causes people difficulties Dyslexia does exist Vagueness of label is a problem, means nothing Varied/broad label/multiple definitions Need to be explicit about specific difficulties people face Label helpful in explaining difficulties faced by people Not sure that there is a definite condition Dyslexia is a term for people who are stupid Dyslexia is not a term for people who are stupid There is no link between intelligence and dyslexia
Authors such as Peter Hitchen suggest that dyslexia is an excuse for poor teaching. What do you think about that statement?	PT0 PT1 PT2 PT3 PT4 PT5 PT6 PT7 PT8 PT9	Do not agree with statement Neither disagree or agree, could be, not sure Agree with statement If not using variety of teaching strategies, this is poor teaching Dyslexia as consequence of poor teaching Other factors are/can be the cause Poor teaching not cause but can impact on learning Lazy teachers Teachers use label as excuse for lack of progress Teachers need training/CPD/support
What 3 words would you give to describe a student with dyslexia training to be a teacher? (Discuss the terms provided). Are these different to the words you would use to describe someone training to teach without dyslexia? Why? Why not?	AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15 AD16	Creative Determined Misguided A challenge/challenging Point proving Empathetic Compassionate Inclusive Extra/more/intensive support needed Monitoring needed In the wrong job Brave Parental complaints Committed Challenged Resilience

	AD17 AD18 AD19 AD20 AD21 AD22 AD23 AD24 AD25 AD26 AD27 AD28	Negative impact on standards A risk Hardworking Sympathetic Patient Detrimental to children Use label as an excuse Tenacious Not outstanding Passionate Can identify dyslexia easier than others Understanding
Is there anything that concerns you about a person with dyslexia entering the teaching profession?	CON1 CON2 CON3 CON4 CON5 CON6 CON7 CON8 CON9 CON10 CON11 CON12 CON13 CON14	Ofsted Accountability Impact on other staff/the school Writing on board – errors Errors in documentation to be sent home (e.g. letters, reports, home-school link books) Marking books/work Retention Lack of funding/time for support Negativity of the profession Critique of other stakeholders e.g parents, governors Standard use of English/correct modelling of usage Ability to teach phonics – Trust in the qualifications/assessors that they have the skills needed Unable to do work set for the children
Are they any specific strengths that you believe that people with dyslexia bring to the teaching profession?	AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15 AD16 AD17 AD18 AD19	Creative Determined Misguided A challenge/challenging Point proving Empathetic Compassionate Inclusive Extra/more/intensive support needed Monitoring needed In the wrong job Brave Parental complaints Committed Challenged Resilience Negative impact on standards A risk Hardworking

	AD20 AD21 AD22 AD23 AD24 AD25 AD26 AD27 AD28 AD29	Sympathetic Patient Detrimental to children Use label as an excuse Tenacious Not outstanding Passionate Can identify dyslexia easier than others Understanding Organised
Some authors believe that people with dyslexia are more likely to be inclusive in their classroom practice and are more creative? What do you think about this? Would you agree/disagree? Why?	CREAT1 MAD6 MAD1 MAD8 NAD8 NAD1 AD8N NCR	Depends on definition of creativity Are more empathetic Are more creative Are more inclusive Inclusive for dyslexia but not all SEND Not creative Not more inclusive Not a causal relationship
Some people suggest that those with dyslexia are good role models for children with dyslexia. How do you feel about this claim? What do you see as being a 'role model'?	YRM NRM RMCS NEGRM YRIP FEAR1 TNMRM ORM	Yes, are a role model No are not a role model Can succeed/achieve with dyslexia Negative aspects of being role model e.g when getting things wrong Role model if public about having dyslexia People afraid to go public about their dyslexia Teachers not main role models Other people in society more prominent role models
Do you think people with dyslexia may be more or less suited to teaching specific age ranges? Specific subjects?	EEA EY EO EAS CON12 SPE Sart SMusic SMaths NEA NES D34sev	Effect teaching all ages Effect teaching young children Effect teaching older children Effects all subjects Teaching of phonics – concern Best teaching secondary PE Best teaching secondary art Best teaching secondary music Best teaching secondary maths No effect on ages No effect on subjects Depends where are on spectrum of severity

<p>Sub question: Would it worry you if someone with dyslexia [was] teaching a ... a reception class with phonics if their issue was phonological awareness? Would it worry you that the thought of somebody teaching young children the segmenting and blending of sounds if they struggle to do that themselves?</p>	<p>NPTP</p>	<p>Not a problem teaching phonics</p>
<p>Have you ever been a mentor/ULT for a student with dyslexia? Can you describe your experiences?</p>	<p>SWB STA AI NE PE</p>	<p>Using word banks as a strategy Using TA as a strategy Awareness of own issues/difficulties Negative experience Positive experience</p>
<p>Overall, you think students with dyslexia should enter the teaching profession? Can you explain your answer?</p>	<p>NET SET D34sev SCREEN</p>	<p>Should not enter teaching/teaching profession Should enter teaching/teaching profession Depends on severity/where are on spectrum, if severe no Screening needed to ascertain severity</p>
<p>Are you're saying because potentially that will be a negative impact on the children?</p>	<p>NI</p>	<p>Will have negative impact on standards</p>
<p>Are there any professions which may present challenges to someone with dyslexia?</p>	<p>DOC NUR VET TEACH LIT NOE</p>	<p>Doctor Nursing Vet Any profession which includes teaching as an element Any job dependent on literacy skills e.g. editor No occupation should be exempt to someone with dyslexia</p>

Would you recommend that an ITE student with dyslexia disclose their disability to their placement school? Why? Why not?	YD DND Sup UnD Lack Sup Stig CON10	Yes disclose Do not disclose Support can be put in place Uncertain should disclose or not Lack of support from some staff/schools Stigma attached – causes some to doubt can do the job Critique of other stakeholders e.g parents, governors
Would you recommend someone with dyslexia to disclose their disability on a teaching job application form? Why? Why not?	YD DND Sup UnD Lack Sup Stig CON10 Sifttool	Yes disclose Do not disclose Support can be put in place Uncertain should disclose or not Lack of support from some staff/schools Stigma attached – causes some to doubt can do the job Critique of other stakeholders e.g parents, governors Sifting tool – used to decline applicants
If two people applied for a teaching vacancy and one disclosed having dyslexia would that influence your decision, in any way, to invite them to interview? If they informed you only at the point of interview, would this influence your choice of candidate, in any way, for the position?	YID NID Illegal BEST IDO	Yes, it would influence my decision No, it would not influence my decision Illegal to do so Best teacher would get the job Aware may/does influence decision of others
Sub question: Is there a stigma attached to dyslexia and a lack of understanding about what it means?	Stig	Yes, there is a stigma
Sub question: What do you think would help reduce this stigma?	CPD Exp	Continuing professional development/training Positive experiences of someone with dyslexia

<p>Sub question: So, if you were shortlisting, and hadn't seen those people and you could only take six people through to erm ... interview, and you had somebody with dyslexia on their application form, would you find a reason to put them in the 'no' pile?</p>	<p>YID NID Illegal BEST IDO</p>	<p>Yes, it would influence my decision No, it would not influence my decision Illegal to do so Best teacher would get the job Aware may/does influence decision of others</p>
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Appendix 17 - Initial coding of interview data using numerical coding

Did you ever read about/ receive any training about dyslexia in your own studies? If yes, please elaborate further	Not in my own training ... but when I was erm ... teaching in school, almost as an NQT, we had dyslexia training then. We went through a phase of having dyslexia training on friendly classrooms and I had children in my class quite early on as an NQT .	T0 T3
	No, never	T0
	No, never	T0
	We had a bit of input on erm ... learners with dyslexia and, as a result of my placement I was placed in two dyslexia-friendly schools so had the opportunity to work with dyslexic learners. And I've got about ten dyslexic learners, albeit not all formally diagnosed in school at the moment.	T1 T2
	I didn't as part of my ... my training ... but during the year I did the graduate teacher programme so I was in a school, in a class quite quickly and the class was there for the whole year of my training. So ... and within that class, there was a child who was having a lot of difficulties so, as a school, we needed to find out a little bit more about it but it didn't directly come from the university side ... it came because I happened to have that child in the class at that time.	T0 T2
	Not that I can remember although erm...it as a few years ago now. It's a term that I can only really remember hearing in the noughties. Before that we just had poor readers and spellers. I don't know, it could just be me but it seems to have exploded in popularity. You hear about it all of the time now.	T0 RT1 CT1
	Only on the training of the PGCE and I've looked it up and that's really helped me.	T1, T4
	Up to the point of my degree I hadn't had any training but then in my PGCE I've had a lecture and I'm also doing my essay on dyslexia so I'm looking into it myself	T1 T4
Yes, we've had a lecture about it and I did a placement and attended an INSET day about it.	T1, T2	

Appendix 18 – Memo-ing

Sarah: What is your understanding of legislation in relation to dyslexia and teaching?

School staff 3/ ^{legislation} The Equality Act is in place. This is supposed to allow equality within the workforce to ensure those with disabilities are protected. I guess the issue here is how do you support someone who struggles with literacy in a job where high literacy skills are a requirement? It seems the Act is at odds with reality and the demands of the profession. We need to protect our children and standards.

Realistic Adjustments Demands of Job

Awareness of EA + its purpose

Tension - inclusion vs daily roles/responsibilities - demands of profession

Negative standards Negative impact

Sarah: When trainee teachers are in school, whose responsibility is it to ensure the Equality Act is being employed?

School staff 3/ ^{legislation - uncertainty} I am not sure. I would say it is the university as we do not employ the student. Unless I know they have dyslexia I can't do anything about it but having said that what can I do, really?

Uncertainty about resp

Uni seen as employer observes schools

Disclaim

Reconcile Adjustments vs Demands of Job

- Disclaim - Issue of how to support.

Sarah: Do you know who to go to if you need advice about someone with dyslexia, training to be a teacher, for example if they needed support on placement or academically?

School staff 3/ ^{University staff seen as knowledge} I would direct them back to university tutors. There are issues at university though. I think the over use of technology hides their issues academically and they can get much support like extra time and allowances for spelling errors at university. I think that is wrong on a teacher training course, this should not happen. I think this is why they are exposed in school. We can't give them as much support and the allowances. If you get it wrong, you are impacting on lives.

Support

Too much support masks deficits

- on prof. courses should not get support

Negative Negative impact

- Schools not able to support as much

Appendix 19 – Data Reduction/coding

Phase 1

Red text denotes negative comments e.g. issues and deficits identified, criticism, pessimism

Green text denotes positive comments e.g. advantages and benefits identified, opportunities and optimism

Research objective 3: Employability	
Question: Do you think students with dyslexia should enter the teaching profession? Can you explain your answer?	
ITE staff Jane Response	If people have got what I consider to be more severe dyslexia then I think 'no' because of the challenges for themselves as well as the children or young people that they are teaching. Perhaps people need to be tested on application. (Jane line 473-475)
Paraphrasing (first reduction)	If severe no due to impact on selves and learners. Screening needed
Codes (second reduction)	Severity, negative implications for employability, spectrum, negative impact, screening
Abstract/conceptual considerations	<i>Implies that there is a spectrum of severity and that if at the mild end of the spectrum people are suitable to teach. Implies a negative impact if dyslexia is severe. The need to screen people is identified before they are allowed to enter the profession. Who determines what 'severe' means in practice? What are these potential challenges that people with 'sever' dyslexia and how does these compare to people with mild dyslexia?</i>
ITE staff Emily Response	I think students with dyslexia who have a desire to become a teacher require quite a rigorous screening to ascertain the levels of their dyslexic tendencies and the impact it will have not them and how hard they're going to find it but on learners who actually deserve the best we can give. Regrettably if it is that your dyslexia presents far too much of a challenge this is not the profession for you (Emily line 174-178)
Paraphrasing (first reduction)	Screening needed to establish severity and potential impact on learners rather than selves. If severe no
Codes (second reduction)	Screening, spectrum, severity, impact, negative implications for employability
Abstract/conceptual considerations	<i>Implies that there is a spectrum and that if at the mild end people are suitable to teach. Through a screening process implies that those with severe dyslexia should not be allowed to train to become teachers in the first</i>

	<i>place. Does not say the cut-off point of severity and does not suggest when people are too dyslexic to teach. Who would make that decision?</i>
ITE staff Lyndsay Response	<p>There has been a case of one student who said that due to her dyslexia she cannot read out a story unless she has been given 24 hours to practise it at home. You see, for me that is wrong, reading a story is a basic expectation of being a teacher. It seems unrealistic to me and this isn't a reasonable adjustment, it is unreasonable – it's part of the role and if you cannot do this then it calls into question your suitability for the job. Wanting to be a teacher and being a teacher are two different things. Gosh I feel awful again but I am afraid that if it is that your dyslexia presents far too much of a challenge this is not the profession for you. I think a screening process is needed. (Lyndsay line 102-109)</p> <p>if you're at the higher end of the spectrum with the most severe difficulties Mmm then the teaching profession isn't for you because potentially that will be a negative impact on the children (Lyndsay line 114-116)</p>
Paraphrasing (first reduction)	<p>If cannot perform basic expectations of role of teacher e.g. reading a story aloud, should not enter teaching. Cannot make unrealistic adjustments for activities that are part of the job.</p> <p>If dyslexia severe no Screening needed Negative impact on learners</p>
Codes (second reduction)	Roles/responsibilities, severity, negative implications for employability, screening, negative impact,
Abstract/conceptual considerations	<i>Highlights an understanding of tacit knowledge (what is needed of the job – the basic role, responsibilities and duties of being a teacher). Also links to meeting the teaching standards. Implies that there is a spectrum of severity and that if at the mild end people are suitable to teach but if at the sever end they are not due to a perceived negative impact. Screening is advocated but does not say the cut-off point of severity and does not suggest when people are too dyslexic to teach. Who would make that decision?</i>
School staff 1 Zoe Response	Over all, yes. Yes because suppose I believe there is a spectrum of dyslexia. If you are at the lower end of the spectrum I'm not sure you are any different to someone who is just a poor speller or slow reader. (Zoe line 483-485)
Paraphrasing (first reduction)	<p>Yes should teach Spectrum of dyslexia. If mild alright to teach no difference between someone with literacy difficulties</p>
Codes (second reduction)	Employable, spectrum, labelling
Abstract/conceptual	<i>Comparison made here to those with general literacy difficulties but without the official label. Calls in to</i>

considerations	<i>question the difference between those with the label and those without and the potential issues of labelling linked to the work of Elliott.</i>
School staff 2 Ellen Response	<i>If mildly dyslexic yes but if you are severely dyslexic, I don't think teaching is the profession for you. (Ellen line 425-426)</i>
Paraphrasing (first reduction)	Yes if have mild dyslexia no if severe
Codes (second reduction)	Employable, spectrum, severity, negative implications for employability
Abstract/conceptual considerations	<i>Implies that there is a spectrum and that if at the mild end people are suitable to teach. Through a screening process implies that those with severe dyslexia should not be allowed to train to become teachers in the first place. Does not say the cut-off point of severity and does not suggest when people are too dyslexic to teach. Who would make that decision?</i>
School staff 3 Stephen Response	<i>If they were mildly dyslexic, I can't see a problem (Stephen 171-172)</i> <i>Not if they have severe dyslexia. Yes, I suppose so I do think there's a spectrum....the two I had I would say were at the extreme end and I can honestly say that they would have struggled in the job. I think had they continued they would have been going down incompetency procedures in their NQT year. Schools just don't have the time to support. (Stephen line 166-171)</i> <i>but when you see that label you just don't know the severity or what exactly the issues are (Stephen line 172-173)</i>
Paraphrasing (first reduction)	Yes if have mild dyslexia no if severe. Spectrum of severity. Two previous students with dyslexia had extreme characteristics and would have struggled with demands – incompetency. Lack of time to support.
Codes (second reduction)	Employable, spectrum, severity, negative implications for employability, roles and responsibilities, support
Abstract/conceptual considerations	<i>Implies that there is a spectrum of severity and that if at the mild end people are suitable to teach but if severe they should not. Does not state how and by whom this should be determined. Issues of lack of support are raised suggesting that schools do not have the time or money to support those with disabilities</i>

ITE student 1 Harriet Response	Yes (Harriet line 416)
Paraphrasing (first reduction)	Yes
Codes (second reduction)	Employable
Abstract/conceptual considerations	<i>Firm answer given by Harriet. Nothing further offered to explain answer.</i>
ITE student 2 Wendy Response	Yes. I think so. So far there is nothing that I've come across that I think my dyslexia is causing an issue (Wendy line 293)
Paraphrasing (first reduction)	Yes. No issues caused by having dyslexia
Codes (second reduction)	Employable
Abstract/conceptual considerations	<i>As a trainee teacher with dyslexia, Wendy does not perceive that her disability has any impact upon her ability to teach and to meet the standards. However, there does appear to be some doubt as she states 'I think so'.</i>
ITE student 3 Jack Response	Yes.... if not too severe but then no but there are much worse disabilities I mean like being blind. Could you imagine the issues with behaviour management and safety of the class. That would worry me. What about someone with bi-polar or mental illness like schizophrenia. They could turn on the children at any time and harm them. That would worry me more (Jack line 129-133)
Paraphrasing (first reduction)	Yes if mild, no if severe. Other disabilities are more of a concern being blind no, mental illnesses such as schizophrenia no.
Codes (second reduction)	Employable, spectrum, severity, negative implications for employability, range of disabilities unsuitable
Abstract/conceptual considerations	<i>Implies that there is a spectrum of severity and that if at the mild end people are suitable to teach but if severe they should not. Does not state how and by whom this should be determined. Indicates wider issues of inclusion for other disabilities. Negativity surrounding physical and mental health issues.</i>

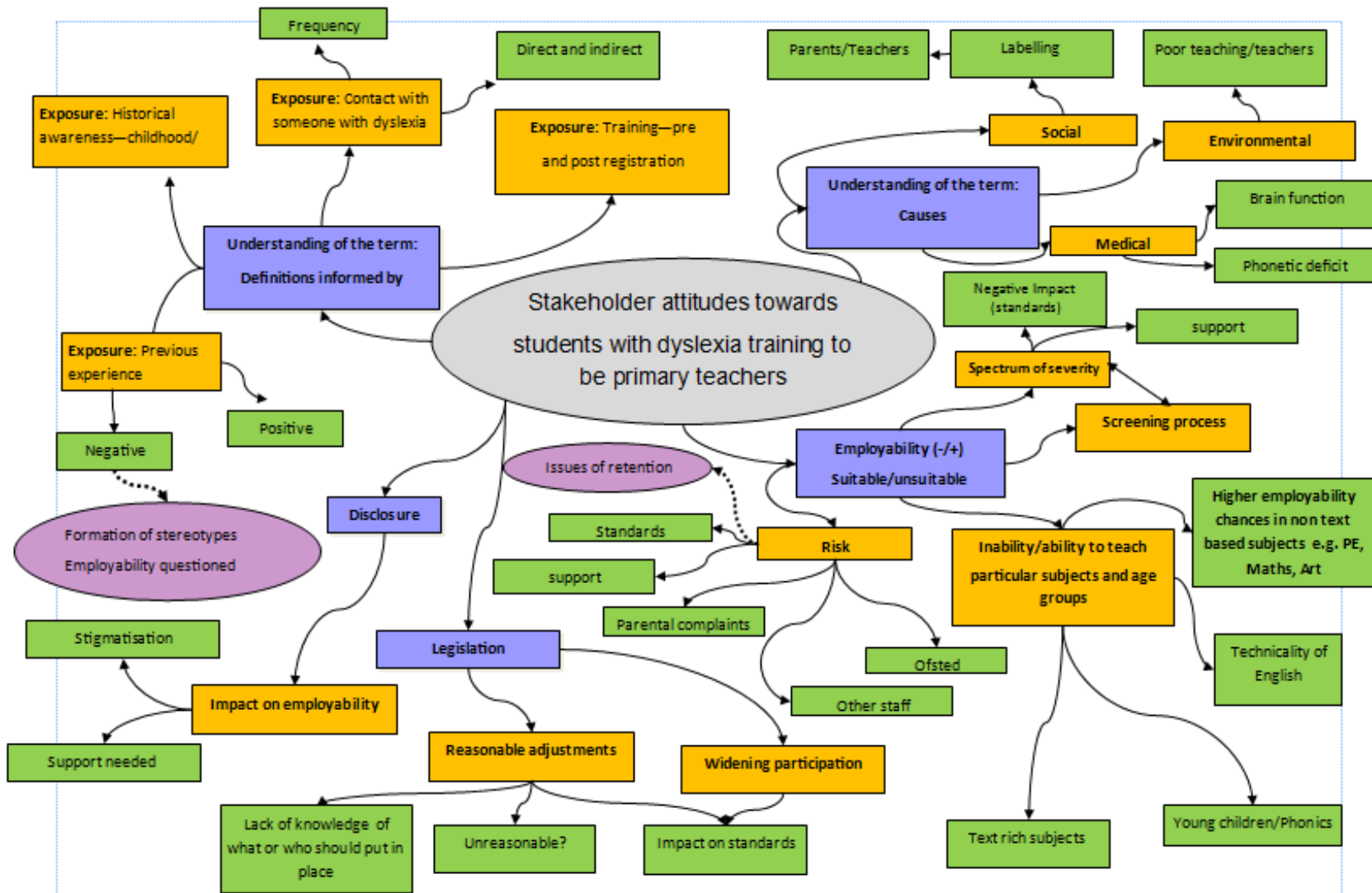
Parent 1 Alice Response	No they should not. It's too much of a risk. Our children's education is precious and we have a responsibility of providing the best teachers that we possibly can for them. Personally, I don't want my children being taught by anyone who may struggle with basic literacy themselves. I think people under estimate how complex English is to learn. (Alice line 133-138)
Paraphrasing (first reduction)	No. Risk. Need best teachers for children. Do not want children taught by those with own difficulties. Teaching English complex
Codes (second reduction)	Negative implications for employability, risk(negative impact), technicality of English
Abstract/conceptual considerations	<i>Overt negative attitude expressed. The notion of risk is presented in the context of the potential negative impact on their child's progress in literacy. A link has been made that if someone struggles with literacy skills then they will not make a good teacher. The technicality of the English language is raised.</i>
Parent 2 Paul Response	I'm not sure to be honest. I think if they have only a few issues with spelling and writing this is ok but if like, they have real problems and are severe, no they shouldn't or if they are I don't think they will last long. I know the parents at our school. They would easily complain to the Head if they noticed mistakes being made (Paul line 77-80)
Paraphrasing (first reduction)	Unsure. Depends on severity -if mild yes if severe no. If severe issues of retention Concerns about parental complaints
Codes (second reduction)	Employable, spectrum, severity, negative implications for employability, retention, risk (complaints)
Abstract/conceptual considerations	<i>Here there is uncertainty as Paul also believes that there is a spectrum of severity and that if at the mild end people are suitable to teach but if severe they should not. Does not state how and by whom this should be determined. Concerns about the pressures of parental complaints highlighted.</i>

Phase 2

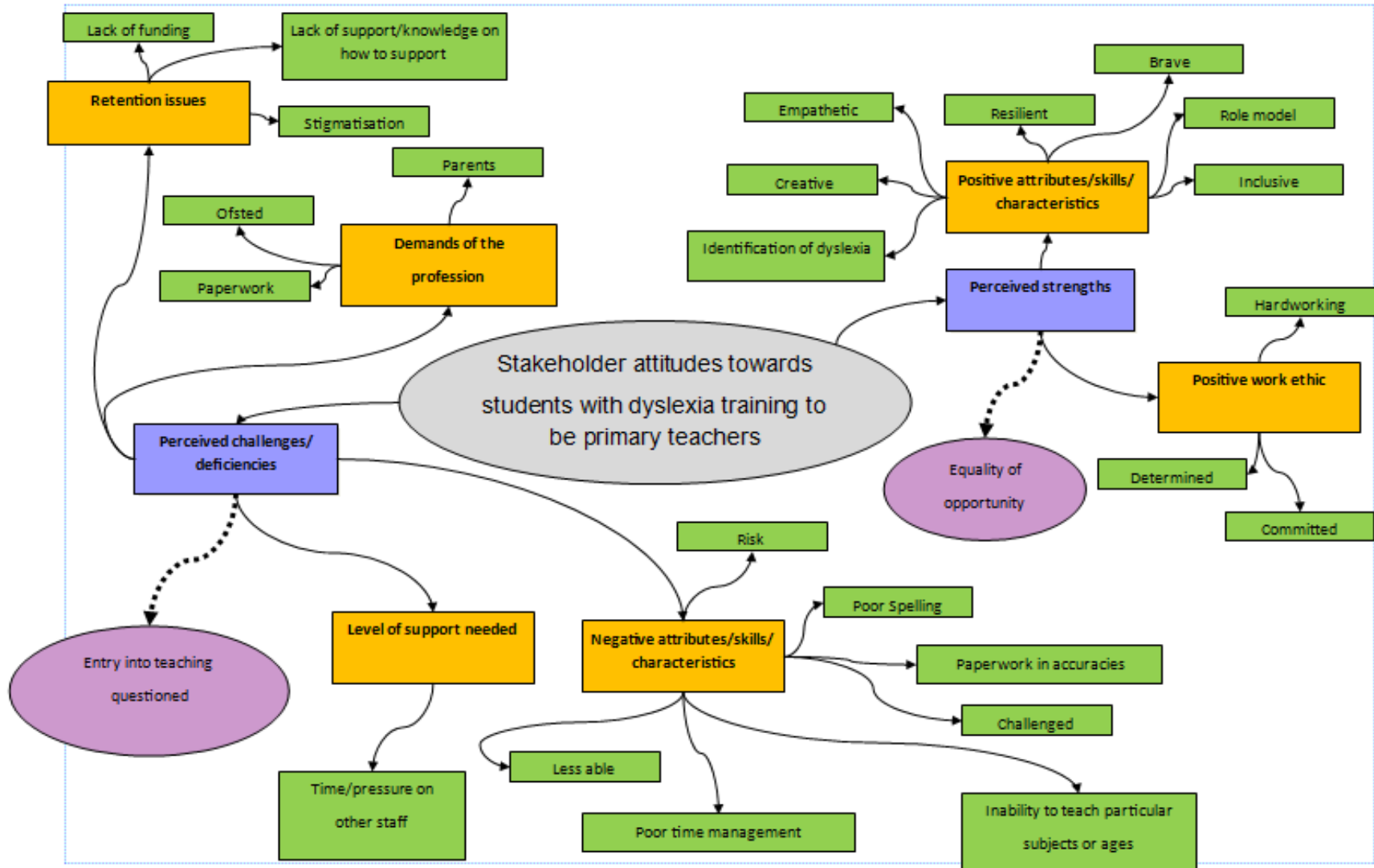
Summative analysis	Emerging themes-
Of the 11 respondents, 8 (73%) indicated those with severe dyslexia should not teach. Typically those at the 'mild' end of the dyslexia spectrum are not seen as causing a	Spectrum of severity

<p>concern to the profession.</p> <p>Of the 11 respondents, 3 (27%) stated yes outright that people with dyslexia should enter the teaching profession.</p> <p>Of the 11 respondents, 3 (27%) suggested that there needs to be screening at the point of entry to the profession to establish the severity of dyslexia and potential impact/ability to meet basic expectations of the role.</p> <p>Of the 11 respondents, 7 (64%) indicated that they believed that there was a spectrum of dyslexia.</p> <p>Of the 11 respondents, 4 implied or explicitly stated concerns that someone with dyslexia would have a negative impact on learners.</p> <p>One respondent suggested that schools have no time to support those with severe issues.</p> <p>Other disabilities are also seen as unsuitable for teaching (one respondent)</p>	<p>Employability – positive</p> <p>Employability - negative</p> <p>Screening</p> <p>Negative impact</p> <p>Support</p> <p>Retention</p>
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Appendix 20 – Key descriptive words and emerging themes (1)



Appendix 21 – Key descriptive words and emerging themes (2)



Appendix 22 – Statistical analysis of definitions following content analysis coding (Phase 1 participants)

Key word/phrase	Code	Number of ITE Student definitions including code	% of ITE Student definitions including code	Number of School staff definition which include code	% of School staff definitions which include code	Number of ITE staff definitions which include the code	% of ITE staff definitions which include the code	Number of parental definitions which include the code	% of parental definitions which include the code	% of total sample
Learning difficulty/difficulties/problems with...	D1	55	61.1	58	71.6	12	66.7	23	92	69.5
Barrier to learning	D2	3	3.3	0	0	1	5.6	0	0	1.9
Disorder	D3	8	8.9	4	4.9	4	22.2	0	0	7.5
Condition	D4	8	8.9	4	4.9	2	11.1	1	4	7.0
Struggles	D5	15	16.7	9	11.1	0	0.0	4	16	13.1
Sufferers/suffers	D6	2	2.2	0	0	0	0.0	1	4	1.4
Reading including comprehension/understanding of text	D7	68	75.6	43	53	13	72.2	16	64	65.7
Interpreting of words, symbols and/or letters	D8	4	4.4	0	0	0	0.0	0	0	1.9
Writing	D9	42	46.7	28	34.5	6	33.3	7	28	39.0
Spelling	D10	31	34.4	49	60.4	11	61.1	21	84	52.6
Speech/verbal language/communication	D11		0.0	1	1.2	2	11.1	0	0	1.4
Decoding words	D12	6	6.7	3	3.7	2	11.1	1	4	5.6
Memory/recall	D13	9	10.0	5	6.1	8	44.4	0	0	10.3
Maths/numeracy/numbers	D14	13	14.4	5	6.1	1	5.6	0	0	8.9
Literacy/English skills	D15	8	8.9	6	7.4	1	5.6	0	0	7.0
Mixing up words/letters	D16	13	14.4	3	3.7	0	0.0	1	4	8.0
Processing –visual – seeing things differently, how see words/letters, words moving around on page	D17	12	13.3	13	16	0	0.0	4	16	13.6

Processing – information	D18	3	3.3	1	1.2	0	0.0	0	0	1.9
Processing – verbal	D19	3	3.3	0	0	0	0.0	0	0	1.4
Processing cognitive	D20	1	1.1	0	0	0	0.0	0	0	0.5
Processing language	D21	1	1.1	1	1.2	1	5.6	0	0	1.4
Organisational skills	D22	3	3.3	1	1.2	9	50.0	0	0	6.1
Self esteem	D23	1	1.1	0	0	0	0.0	0	0	0.5
phonological development	D24	1	1.1	0	0	0	0.0	0	0	0.5
Balance/coordination/physical issues	D25	2	2.2	3	3.7	2	11.1	0	0	8.9
Lifelong	D26	1	1.1	0	0	0	0.0	0	0	0.5
Complicated area/complex/many aspects	D27	0	0.0	5	6.1	3	16.7	0	0	3.8
Holistic	D28	0	0.0	0	0	1	5.6	0	0	0.5
Different experiences/difficulties faced by people	D29	4	4.4	5	6.1	0	0.0	0	0	4.2
Other talents/abilities/strengths	D30	3	3.3	1	1.2	0	0.0	0	0	1.9
Not affect intelligence/inconsistent with intelligence	D31	6	6.7	0	0	0	0.0	0	0	2.8
Lower ability	D32	0	0	2	2.4	0	0	0	0	0.9

Appendix 23 - Frequency of characteristics, identified by interview respondents, in definitions provided

Characteristics of dyslexia identified by stakeholders	Frequency of the given characteristic in definitions provided	% of definitions including characteristic
Reading (including speed/fluency issues)	11	100
Spelling	9	81.8
Organisation	7	63.6
Short term memory	4	36.3
Writing (including sentence structure and getting ideas on paper)	4	36.3
Comprehension	2	18.1
Phonological issues	2	18.1
Words jumping around (visual processing)	2	18.1
Low self-esteem	1	9
Letter/number reversals	1	9
Stress/Frustration as a result of issues experienced	1	9

Appendix 24 – Relationship of known persons, with dyslexia, to sample group respondents

Known person with dyslexia	No. of incidences ITE students	No. of incidences School staff	No. of incidences ITE Staff	No. of incidences Parents	Total % of incidences reported
Mother	4	2	0	0	2.6
Father	1	1	0	0	0.9
Brother	2	3	0	0	2.1
Sister	3	3	0	2	3.4
Own child	1	3	1	2	3.0
Partner	3	1	1	0	1.7
Other family member	12	12	5	1	12.8
Friend	52	15	7	2	32.4
Neighbour	2	2	0	0	1.7
Work colleague	11	14	3	1	12.3
Teacher	8	7	3	0	7.7
Other e.g. child/student in school/class in class	18	20	7	0	19.1
Total instances	117	83	27	8	100

Appendix 25 – Frequency of contact with someone with dyslexia

Average contact	No. of incidences ITE students	No. of incidences School staff	No. of incidences ITE Staff	No. of incidences Parents	Total % of incidence
Daily	28	31	4	2	27.6
Weekly	41	15	7	2	27.6
Monthly	39	25	11	3	33.1
Yearly	6	3	3	1	5.5
Other	3	9	3	0	6.3
Total number of incidences	117	83	27	8	100%

Appendix 26 - Overview of calculation used to underpin discussion

The numerical value for each item, deemed to be positive/identifying a strength on the attitudinal Likert scale, used in Phase 1 of the data collection process was initially determined as:

Strongly agree = 5

Agree = 4

Neither agree nor disagree = 3

Disagree = 2

Strongly disagree = 1

However, the scores for the statements indicating a negative attitude or a perceived area of challenge (such as statements 4, 5, 6, 7, 8, 11, 12, 13, 18) were reversed to:

Strongly agree = 1

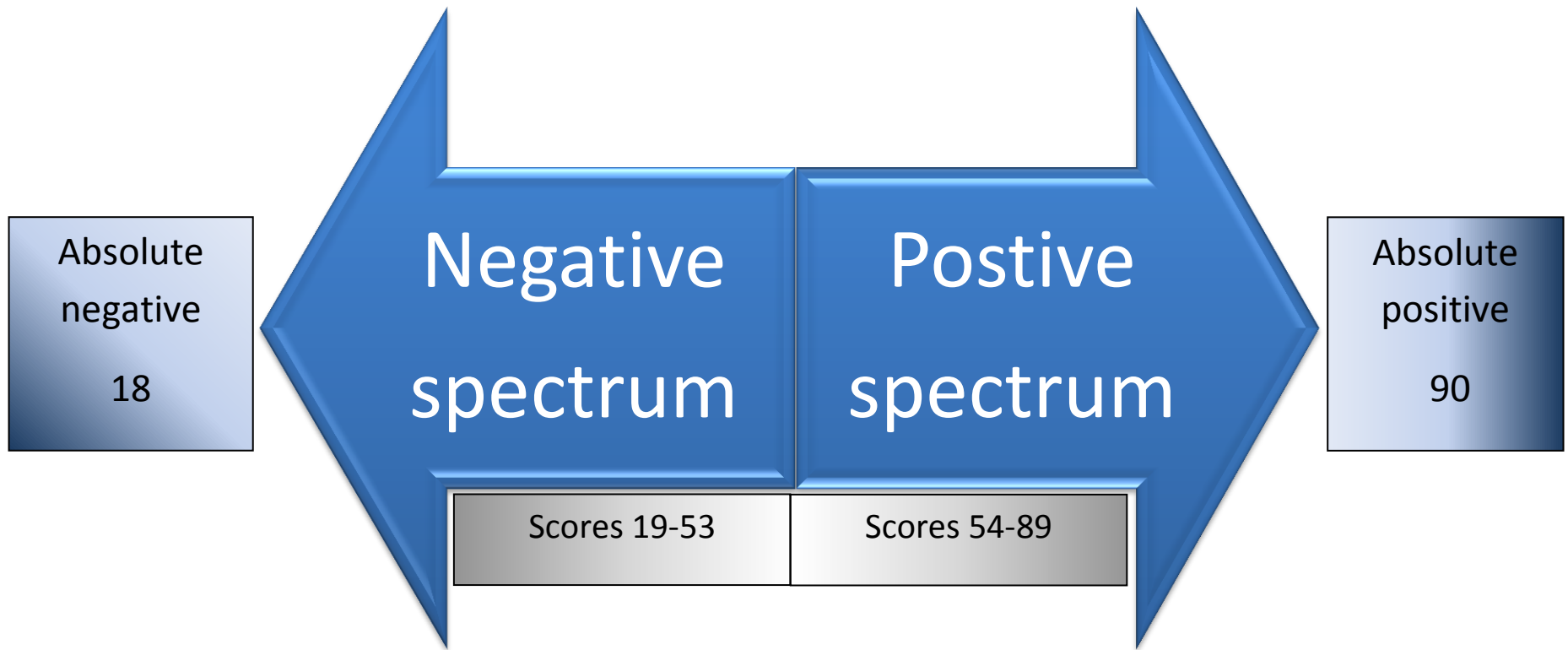
Agree = 2

Neither agree nor disagree = 3

Disagree = 4

Strongly disagree = 5

The sum of all the items was then calculated to give an aggregate score for each respondent. These were then calculated to give a mean score for the sample group. Using the above calculations the lowest score that could be achieved was 18 and the highest 90. A spectrum of positivity/negativity as devised as follows:



Appendix 27 - Timetable of Dissemination

Date	Activity
Completed	
March 2013	SEND conference – University of Derby Delivery of research aims and objectives. Synopsis of literature findings to date and potential lines of enquiry
January 2014	Agenda item - Primary ITE team meeting Introduction of research and aims
January 2014	Partnership Conference – University of Derby Overview of research aims, purpose and rationale shared. Informed school staff of email to be sent to named ITE contact in schools, requesting participation. Ethical considerations detailed to help improve response rate.
June 2014	BEd Lead lecture Outline of research aims. Ethical considerations detailed to encourage participation
June 2014	PGCE and SD Lead lectures Outline of research aims. Ethical considerations detailed to encourage participation
June 2014	Food for Thought seminar – University of Leicester Emerging findings from Phase 1 of the research process
July 2014	Partnership Conference – University of Derby Emerging findings from Phase 1 of the research process
July 2014	Agenda item – Primary ITE team meeting Emerging findings from Phase 1 of the research process
January 2016	Overview of key findings sent to all interview participants
February 2016	Lunch Box seminar – University of Derby Dissemination of research findings
May 2016	Abstract submitted for Ed.D Colloquium at Oxford Brookes University
Planned	
May 2016	Submit proposal of complete research findings to International Journal of Inclusive Education – draft journal article produced awaiting submission
June 2016	Submit article to Times Educational Supplement
October 2016	Submit BERA proposal

Appendix 28 - Potential audiences for dissemination of research findings

Potential Product User	Rationale
ITE Students with dyslexia	Internal and external ITE students with dyslexia and individuals considering applying for teaching posts
School Based Trainers – for all levels of students requiring professional placements in school settings (e.g. at secondary, tertiary and HE)	Improved awareness of attitudinal barriers, support and change of practice when mentoring ITE students with dyslexia
ITE tutors and Placement staff, APTE	Internal and external ITE tutors– improved awareness and knowledge of the impact of inclusive legislation and support on professional placements.
HE support staff	Greater awareness and understanding of attitudinal barriers and subsequent support needs of students with dyslexia on professional placement. Change in support plan policy/practice
External agencies who provide advice on dyslexic issues e.g. Dyslexia Action, British Dyslexia Association,	Improved awareness of the level of stigmatisation and discrimination of ITE students with dyslexia and the need to improve awareness and understanding
Other professionals requiring professional placements	Application of findings to other professions and professional placements

Appendix 29 - Potential Academic and Practitioner Journals for Dissemination

Proposed Academic and Practitioner Journals for Dissemination	Rationale
International Journal of Inclusive Education	<p>This peer reviewed journal provides a strategic forum for international and multi-disciplinary dialogue on inclusive education. Its audience base is comprised of educators and educational policy-makers concerned with schools, universities and technical colleges. Submissions published include multi-disciplinary research into pedagogies, curricula, organizational structures, policy-making, administration and cultures to include all students in education.</p> <p>The journal does not accept enrolment in school, college or university as a measure of inclusion alone. The focus is upon the nature of exclusion and on research, policy and practices that generate greater options for all people in education and beyond. This provides a positive base for the nature of the planned WBP. At 10 issues per year, this journal, arguably, facilitates the widest dissemination of my WBP.</p>
Innovations in Education and Teaching International	<p>This journal aims to promote innovation and good practice in Higher Education. This is achieved through staff and educational development and subject-related practices. The journal welcomes contributions from researchers aiming to promote or support change in HE. The journal places importance on research and evaluation rather than descriptions of practice. This would meet with the aims of the WBP which does not merely seek to describe current practice and attitudes to dyslexic ITE students but which also seeks to bring about improvements and a better understanding of the needs of dyslexic trainee teachers whilst on professional placement.</p> <p>The international aspect of this research journal, with four issues per year, will provide a</p>

	<p>rich audience base as the results of the WPB will be generalised and not UK specific. This will allow transferability of the practices and theories being examined.</p> <p>The journal also adheres to a rigorous peer review policy – at least two referees screen the contributions.</p>
<p>European Journal of Teacher Education</p>	<p>This journal aims to disseminate educational research which serves to investigate theory and practice of trainees and qualified teachers in Europe . Its main audience base is stakeholders with a professional involvement in the education of teachers. As with the previous journals this journal is peer reviewed however, this review is extended to include the Editorial Board. This may make acceptance for publication a greater challenge. Similarly, this a 4 issue, per year, publication on a European scale, again providing wide dissemination. Other writers, in the field of dyslexic trainee teachers have recently been successful in publication within the journal showing that this is an area of interest to the editorial team.</p>
<p>Dyslexia Journal Online</p>	<p>This is a well-established on-line journal that seeks to inform a range of professionals with an interest in dyslexia. Its primary aim is to disseminate different approaches to dyslexia amongst professional and academic audiences and to bring together disciplines that would otherwise work in isolation. The journal is updated regularly however no peer review of articles takes place, only editorial review, which may question the quality of the researched published.</p>