**UNIVERSITY OF SOUTHAMPTON**

FACULTY OF SOCIAL AND HUMAN SCIENCES
Southampton Education School

# Dyslexic Students Preparing for Examinations in Higher Education: Strategies and a Sense of Control

by

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# ABSTRACT

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This thesis reports research using a qualitative approach and a social constructivist lens to explore the experience of preparing for examinations in higher education from the perspective of fourteen dyslexic students. Particular attention is paid to students' feelings about examinations as well as their revision strategies and the influences on the development of those strategies.

The research was conducted in two phases with maximum variation purposive sampling used to recruit as diverse a range of participants as possible for each. Phase one data collection activities involved in-depth interviews and cultural probes; phase two involved participant-led, conversational interviews stimulated by photographs taken by the participants prior to the interview. Data analysis combined elements of inductive thematic analysis and life-history and life-story research approaches. A profile of each participant, in their own words, was crafted as the foundation for further interpretation. Participants described strategies which could be grouped into three broad, overlapping categories: emotional, practical and cognitive. Each individual could be placed along a strategy continuum according to his or her dominant strategy. Their 'sense of control' over their academic lives emerged as a core theme. Findings indicate that as dyslexic students gain a sense of control over their academic lives they move along the revision strategy continuum, from an initial emotional reaction to exams (emotional 'non'-strategists/anti-strategists) through a stage of dealing with exams in a practical way and experimenting with strategies (practical emergent-strategists) to a final metacognitive stage where they have found a system, method or procedure that works for them (cognitive super-strategists).The individual's journey along the strategy and sense of control trajectory is influenced by life experiences including the diagnosis of dyslexia (and its timing) and comments made by significant others or a critical incident which may act as a turning point.

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# DECLARATION OF AUTHORSHIP

I, Susan Jane Lapraik, declare that the thesis entitled 'Dyslexic Students Preparing for Examinations in Higher Education: Strategies and a Sense of Control' and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research.  I confirm that:

- this work was done wholly or mainly while in candidature for a research degree at this University;
- where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
- where I have consulted the published work of others, this is always clearly attributed;
- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
- I have acknowledged all main sources of help;
- where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
- none of this work has been published before submission

Signed: ……………………………………………………………………….

Date:………………………………………………………………………….

# Acknowledgements

Foremost I would like to thank the participants who generously gave their time to take part in my research. Although I do not give their names, I hope their voices are heard in my thesis.

Secondly, I would like to thank my supervisors: Dr. Jane Seale and Professor Melanie Nind for their constructive and supportive guidance.

Finally, I would like to thank my family: my husband for his tolerance and patience and my four children for teaching me so much.

# Chapter One: Introduction

## A personal introduction

My own dyslexia story began in the spring of 1987 when my six-year-old son - the second of my four children - was assessed and found to have a specific learning difficulty which the educational psychologist described as 'severe dyslexia'. The findings of the assessment provided an explanation for my son's difficulties and also a way forward to help him improve his literacy skills; at the time I did not anticipate the crucial role the findings would also play in determining my own career. As with many critical moments or turning points, it is only when they are viewed retrospectively that their significance and importance becomes apparent.

I begin by introducing myself as my experiences have an impact on my perspective: they influence the questions I ask and, inevitably, also the ways in which I interpret the answers. After beginning my career as a Chemistry teacher, stimulated by my son's difficulties and my growing interest in dyslexia, I soon moved into the field of 'special needs', supporting secondary school students with statements of special educational need. This led me to seek formal qualifications in dyslexia, which, in turn, provided a route to the role I took up in 2001 as a dyslexia assessor and tutor in Higher Education (HE) and later, in 2011, as the adviser to the faculties on dyslexia and disability. Meanwhile my son benefited from the recent widening participation initiatives and entered HE after passing a National Diploma rather than via the traditional A-level route; he graduated with a degree in Agriculture in 2001. My youngest child was assessed while studying for A-levels; she also was found to be dyslexic and, as I began my research, she was starting a degree in Medicine at a London university. My other two children are not dyslexic.

Although as a scientist my natural inclination is to write in the third person, I am mindful of Alcoff's (2009, p121) premise that the passive voice acts to erase 'responsibility and accountability'; therefore not only do I describe my background and the 'nature of [my] gaze' (Sikes, 2010, p13) but, in the main, I also write in the first person to keep a sense of my own voice and my position within the thesis.

In this chapter I provide the contextual background to the research by giving an overview of relevant government initiatives and legislation as well as discussing developments in both the definition and aetiology of dyslexia and its impact on study in HE. In the main I use the term dyslexia rather than specific learning difficulties (SpLD) although

occasionally they are used interchangeably, particularly when quoting from sources. I begin by outlining the stimulus for the study and the rationale underpinning the research.

## Stimulus and rationale for the research

Until shortly before the turn of the twenty-first century there were very few dyslexic students in HE (HESA, 1994/95, Richardson and Wydell, 2003, Hurst, 1999) and many of those who had managed to negotiate the hurdles tended not to disclose their disability (Riddick, 2003, Riddell et al., 2005a, Richardson and Wydell, 2003). There was little support for dyslexic students and any support provided was largely at the discretion of the university or individual lecturer or tutor rather than being statutory (Shevlin et al., 2004, Tinklin and Hall, 1999). However, recent years have started to see the promise of a sea-change as universities have begun to engage with the social model of disability and the premise that individuals are disabled not by their impairment but by practices or environmental factors which make it difficult for them to participate fully or which restrict their opportunities (Oliver, 1983). Previously the medical model of disability had shaped attitudes; the difficulty (and therefore the need to adapt and change) was considered to rest with the individual. Oliver, amongst others, argues that disability arises from societal restrictions:

> All disabled people experience disability as social restriction whether these restrictions occur as a consequence of inaccessible built environments, questionable notions of intelligence and social competence … or hostile public attitudes to people with non-visible disabilities. (Oliver, 1990, pxiv, Introduction)

From the perspective of students with dyslexia, the impairments underlying dyslexia may be transformed into disabilities by practices they encounter in HE which make it difficult for them to participate fully (Riddick, 2001). However, widening participation initiatives, government policies and changes in anti-discrimination legislation have heralded the prospect of a new inclusive era for dyslexic students. Increasing numbers of dyslexic students are entering HE and it is likely that this trend will continue and they will make up a significant and increasing proportion of the undergraduate population. The social model of disability underpins anti-discrimination legislation: the onus is on institutions to change rather than the individual to adapt. Nevertheless, although participation in HE is considered to be 'a matter of equal opportunities and empowerment' (Fuller et al., 2004b, p303), Paul (2000, p209) suggests that disabled students 'constantly face various barriers in the educational environment'. Achievement at university remains 'largely unchanged' (Riddell and Weedon, 2006, p61) and tends to be dominated by performance in traditional examinations – generally timed, written assessments at the end of a period of study

(Hanafin et al., 2007). Despite support, the underlying cognitive differences experienced by dyslexic students persist and may well make this problematic (Singleton, 1999, Desmet, 2007, Mortimore and Crozier, 2006). Indeed, Richardson and Wydell (2003, p500) have found that 'dyslexia has deleterious consequences for the likelihood of academic progression, completion and achievement' in HE. Certainly, dyslexic students tend to be less likely to complete their course of study and less likely to obtain good honours degree classifications than their non-disabled peers (Richardson and Wydell, 2003, Singleton, 1999). Even when the literacy skills of dyslexic students appear, on the surface, to be at the average level, reading and writing tends to be more effortful and reduces cognitive resources required for other tasks such as comprehension, recalling information or organising ideas (Riddick et al., 1997, Mortimore and Crozier, 2006, Beaton et al., 1997). Moreover, dyslexic students generally experience weakness in working memory which impedes the ability to remember, store and retrieve information - all essential elements of revision (McLoughlin et al., 1994, Riddick et al., 1997). Examinations are the yardstick by which students are measured. Not only do examination grades affect students' future careers but assessment practice also has an impact on their experiences of HE and communicates to them 'what they can and cannot succeed at doing' (Boud and Falchikov, 2007b, p3).

Although the increase in the number of disabled students entering HE has stimulated a corresponding expansion in research on inclusion, as Fuller et al. (2004b, p304) observe 'beyond the anecdotal, little is known about how disabled students experience teaching, learning and assessment in higher education'. Despite the rise in the number of dyslexic undergraduates and the wide body of research that has been carried out into dyslexia in children, there has been little systematic published research into dyslexia in HE (Riddick et al., 1997, Snowling et al., 1997, Morgan and Klein, 2000). Furthermore, research on dyslexia in childhood has been dominated by the 'deficit-diagnosis-remediation model' (Mortimore and Crozier, 2006, p237) with a focus on the development of therapeutic intervention strategies; this is largely inappropriate in HE where students have, in the main, achieved adequate literacy skills and developed strategies that have made it possible for them to meet the necessary admission criteria (Herrington, 2001, Richardson and Wydell, 2003, Mortimore and Crozier, 2006).

Despite their greater presence in HE, the voices of disabled students are rarely heard, although there are some notable exceptions including a small-scale study by Holloway (2001), an Irish study by Hanafin et al. (2007), research incorporating video data by Goode (2007), a small-scale group-interview study by Fuller et al. (2004a) and three larger scale research projects summarised by Healey et al. (2006b). Research has sometimes relied on statistical data without any direct contact with students (e.g. Osborne, 1999) or

relied on responses to questionnaires or large-scale surveys (e.g.Reindal, 1995, Heiman and Precel, 2003, Hall and Healey, 2005, Carroll and Iles, 2006). Many studies have been concerned predominantly with access and the provision of academic support within Higher Education Institutions (HEIs) (e.g. Tinklin and Hall, 1999, Reindal, 1995, Avramidis and Skidmore, 2004, Shevlin et al., 2004, Konur, 2006) or with inclusive practice and attitudes towards disabled students (e.g. Ash et al., 1997, Mortimore, 2012).

A limited body of research has been published into activities relating to dyslexia and examination revision such as note-taking (Suritsky and Hughes, 1991, Boyle and Weishaar, 2001, Piolat et al., 2005), fieldwork (Hall and Healey, 2005), essay writing (Price, 2003), study skills (Mortimore and Crozier, 2006) and the 'backwash' effect of assessment practices (Hanafin et al., 2007). However, although it is recognised that dyslexic students 'need quite different ways of revising' (Singleton, 1999, p38), as Hanafin et al. (2007, p438) observe 'there is little understanding about how disabled students experience assessment in higher education nor of the effects of assessment on them'. Very little research has been conducted into the actual strategies dyslexic students use, the influences on the development of those strategies and dyslexic students' feelings about examinations.

My research was stimulated by my experiences supporting dyslexic students in HE. Examinations and assessment are of central importance to all students (Brown et al., 1997) since grades achieved often have far-reaching consequences for life-chances and career options as they represent 'a passport to better paid work' (Riddell et al., 2005a, p1); however, the underlying cognitive differences experienced by dyslexic students may well make this problematic. Dyslexic students are operating in and competing in an educational environment where they are required 'to demonstrate their talents and learned capabilities using a medium (recall and written expression under conditions of extreme time pressure) *which impinges directly on the core of their disability* (memory and written language)' (Singleton, 1999, p138, original emphasis). Providing a participatory and inclusive environment for dyslexic students poses important challenges for universities and other HEIs, most especially in the light of recent legislation. An inclusive environment requires that universities should be proactive in anticipating the needs of dyslexic students in their strategic planning and that practices should be embedded and perceived as a core element of the university culture rather than being provided as an add-on; the voices and perceptions of the students themselves are crucial to this process. It is important that as much as possible is known about dyslexic students' experiences of examinations as this may have implications for support provided within the university, pedagogy and future assessment practice. My aim was to gain insight into the experience of examinations from the perspective of students themselves - to make

connections between the 'structural conditions and the lived reality' (Barton, 1996, p3) of dyslexia in HE.

My specific research questions were:

- How do dyslexic students revise for examinations in HE?
- Are specific tactics or learning strategies used?
- What has influenced the development of the strategies?
- How do dyslexic students feel about the experience of examinations?

# Contextual background: government initiatives and legislation

Since the early 1980s HE has seen a dramatic rise in student numbers; however, not only has the number of students increased but, most crucially, the student profile has diversified (Riddell et al., 2005a). Much of the expansion in numbers and increase in diversity has taken place in response to government policies and, more recently, as a result of initiatives funded by the Higher Education Funding Council (HEFCE), which have led to a widening of opportunity for participation from previously under-represented groups. Many of those previously excluded from HE are now included.

**The Higher Education Funding Council for England**

HEFCE was established following the Further and Higher Education Act of 1992, which abolished the division between universities and polytechnics and created one unified education sector across the United Kingdom. As such, HEFCE is the body responsible for distributing public funds for HE in England (there are similar bodies for Scotland and Wales); it has the strategic aim of widening participation and providing fair access.

Until the early 1990s disabled people had largely been neglected as the majority of government widening-participation strategies had been aimed at attracting students from non-traditional backgrounds such as individuals from lower socio-economic groups and under-represented ethnic minorities (Hurst, 1999, Dearing, 1997). However, HEFCE set about the task of improving access to HE for students with disabilities. This objective was explicitly expressed in a letter of guidance, dated June 1992, written by the secretary of State for Education to the Chairman of HEFCE:

> The Council should consider how access to higher education for students with special educational needs can be facilitated. It will need to give attention to providing for these students in its funding. (HEFCE, 1996, p6)

Thus one of HEFCE's key aims was defined and the prospects for many dyslexic students improved. Not only was access to be made easier for dyslexic students but also funding was to be provided to ensure that this would happen.

As a result, between 1993 and 1995, 88 projects were funded by HEFCE. The aim was to 'pump-prime new projects in centres of excellence; to break new ground; and to stimulate imaginative approaches to the needs of students with a wide range of disabilities' (HEFCE, 1996, p6). Whilst many of the projects involved improvements in physical access for students with sensory/physical disabilities, 15 projects had the direct aim of addressing the problems of dyslexic students. HEFCE established an Advisory Group on Access and Participation (AGAP), the Dyslexia Working Party was set up and SKILL, the National Bureau for Students with Disabilities, was engaged to ensure widespread dissemination of information and collaboration between institutions in order to benefit the sector as a whole. These projects led to the establishment of support for dyslexic students where none had previously existed as well as the expansion of existing provision. HEIs appointed specialists in dyslexia and specific learning difficulties, mechanisms were set up for identifying, monitoring and supporting dyslexic students and, most crucially, universities began to embed support into all areas of their academic provision (HEFCE, 1996). Indeed, my own career move to HE was made possible by this HEFCE initiative.

**The Dearing Report 1997**

In May 1996 the National Committee of the Inquiry into Higher Education was set up under the chairmanship of Sir Ron Dearing. It was the first far-reaching examination of HE since the Robbins Committee report of 1963 and as such its remit was 'to make recommendations on how the purposes, shape, structure, size and funding of higher education, including support for students, should develop to meet the needs of the United Kingdom over the next 20 years' (Dearing, 1997, foreword). Initially no mention was made of disabled students in the terms of reference; however, in order that the needs of students with disabilities and learning difficulties should not be neglected, the voluntary organisation for disabled students, SKILL, negotiated an invitation to submit both written and oral evidence to the Committee (Corlett, 1997, Hurst, 1999). The Committee findings proved to be yet another determining factor influencing the rise in the number of dyslexic students in HE, as it was recognised that whereas student numbers in general had increased, groups such as disabled students remained under-represented. Moreover, it was acknowledged that additional funding was required to

reflect the additional costs incurred both by the institutions and by disabled students themselves: a seminal decision. The Committee reported in 1997 and made the specific recommendation that funding should be targeted at institutions which had demonstrated a commitment to widening participation and which had in place a participation strategy and a monitoring process:

> We recommend to the Government and the Funding Bodies that, when allocating funds for the expansion of higher education, they give priority to those institutions which can demonstrate a commitment to widening participation, and have in place a participation strategy, a mechanism for monitoring progress, and provision for review by the governing body of achievement. (Dearing, 1997, chapter 7, recommendation 2)

Furthermore, the Committee recommended that funding should be made available to HEIs to provide learning support for students with disabilities; the Disabled Students' Allowance (DSA) should no longer be subject to a parental means test and its scope should be extended to encompass part-time students, postgraduate students and students wishing to obtain a second higher education qualification (Dearing, 1997, chapter 7, recommendation 6).

**Disabled Students' Allowance**

The Disabled Students' Allowance (DSA) is a government grant made available to dyslexic students (and other disabled students) to help towards the additional expenses that they face when studying at HE level. It comprises three elements: an equipment allowance which can fund technological equipment such as computers and digital recorders; a non-medical helper allowance which can fund specialist study skills support; a general allowance which is used to cover the cost of extra items such as books, photocopying or coloured overlays. Until recently, the DSA was administered by Local Authorities and the NHS Student Bursaries Unit (for students on medical courses); however, since September 2009 administration has been taken over by the Student Loan Company and Student Finance England. Funding is allocated to HEIs by HEFCE on the basis of the number of students claiming the DSA. Therefore, not only does the DSA provide an incentive for dyslexic students to declare their disability, when previously it may have remained hidden, but it also provides a basis for support within the HEI. It has played a significant role in influencing the dramatic rise in dyslexic students able to participate in HE and in the choices made available to them including the ability to continue to higher degrees.

**HESA and the incidence of dyslexia in HE**

In 1993 the Higher Education Statistics Agency (HESA) was established to collect, analyse and disseminate quantitative information about HE. One of its stated missions was to support and enhance 'the ability of Government and its Agencies to determine higher education policy and allocate funding' (HESA, 2009). HEIs are required to provide HESA with information about the number and categories of disabled students; premium funding is awarded on this basis. HESA therefore provides a valuable bench-marking tool and allows assessment of the effectiveness of many of the widening participation initiatives.

According to HESA's records the number of first year students declaring specific learning difficulties (SpLD)/dyslexia on entering HE has increased from 2,337 in 1994/95 to 34,095 in 2010/11.This represents an increase from 0.4% to 3.8% of the student population and is illustrated in Table (1.1).

| Year | Total number of students entering HE | Total declaring SpLD/dyslexia | Percentage with SpLD/dyslexia |
|------|--------------------------------------|-------------------------------|-------------------------------|
| 1994/95 | 592,839 | 2,337 | 0.4 |
| 2001/02 | 818,445 | 13,800 | 1.7 |
| 2010/11 | 906,260 | 34,095 | 3.8 |

Table 1.1. First year UK domiciled students in HE (HESA, 2011)

Over the same period the total number of students declaring a disability has increased from 15,699 in 1994/95 to 38,020 in 2010/11(HESA, 2011). The categories of disability and the percentages of students within each category are displayed in Figures 1.1, 1.2, 1.3.

**1994/95: 15% of disabled students declared SpLD/dyslexia**

- SpLD — 15%
- Visual Impairment — 4%
- Hearing Impairment — 7%
- Mobility Difficulties — 7%
- Personal Care Support — 0%
- Mental Health Condition — 0%
- Austistic Spectrum — 2%
- Long Standing Health Condition — 49%
- Multiple Conditions — 5%
- Another Impairment — 11%
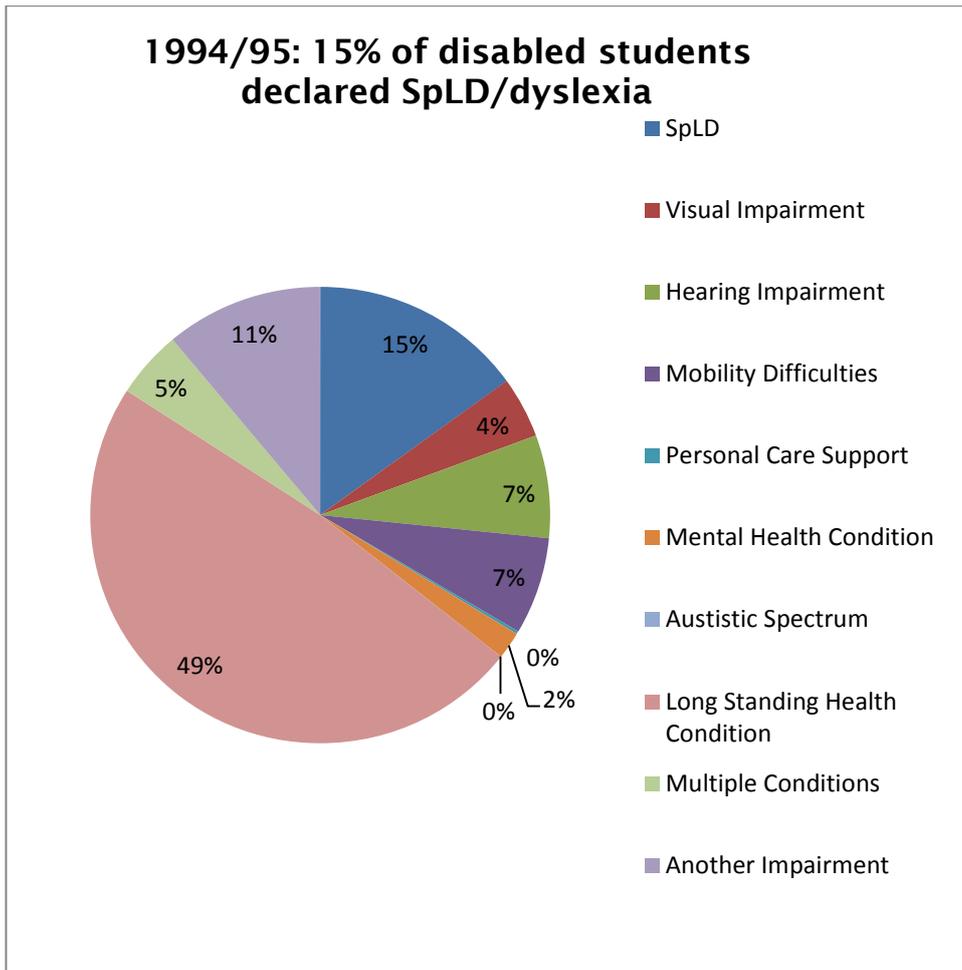
**Figure 1.1 Categories of disability as given by HESA and percentages of UK domiciled disabled undergraduates in each category (HESA, 2011).**

**2001/02: 36% of disabled students declared SpLD/dyslexia**

- SpLD
- Visual Impairment
- Hearing Impairment
- Mobility Difficulties
- Personal Care Support
- Mental Health Condition
- Unseen Disability
- Multiple Conditions
- Another Impairment

36%
3%
7%
5%
0%
4%
25%
7%
13%
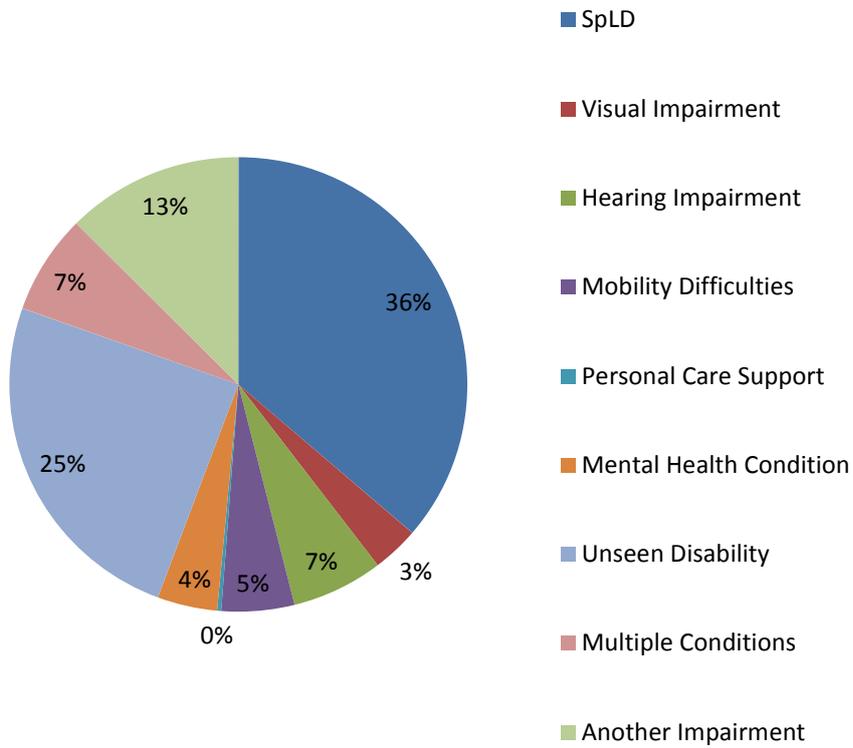
**Figure 1.2 Categories of disability as given by HESA and percentages of UK domiciled disabled undergraduates in each category (HESA, 2011).**

**2010/11: 46% of disabled students declared SpLD/dyslexia**

Legend:
- SpLD
- Visual Impairment
- Hearing Impairment
- Mobility Difficulties
- Personal Care Support
- Mental Health Condition
- Austistic Spectrum
- Long Standing Health Condition
- Multiple Conditions
- Another Impairment

Pie chart values: 46%, 2%, 4%, 4%, 0%, 8%, 2%, 11%, 8%, 15%
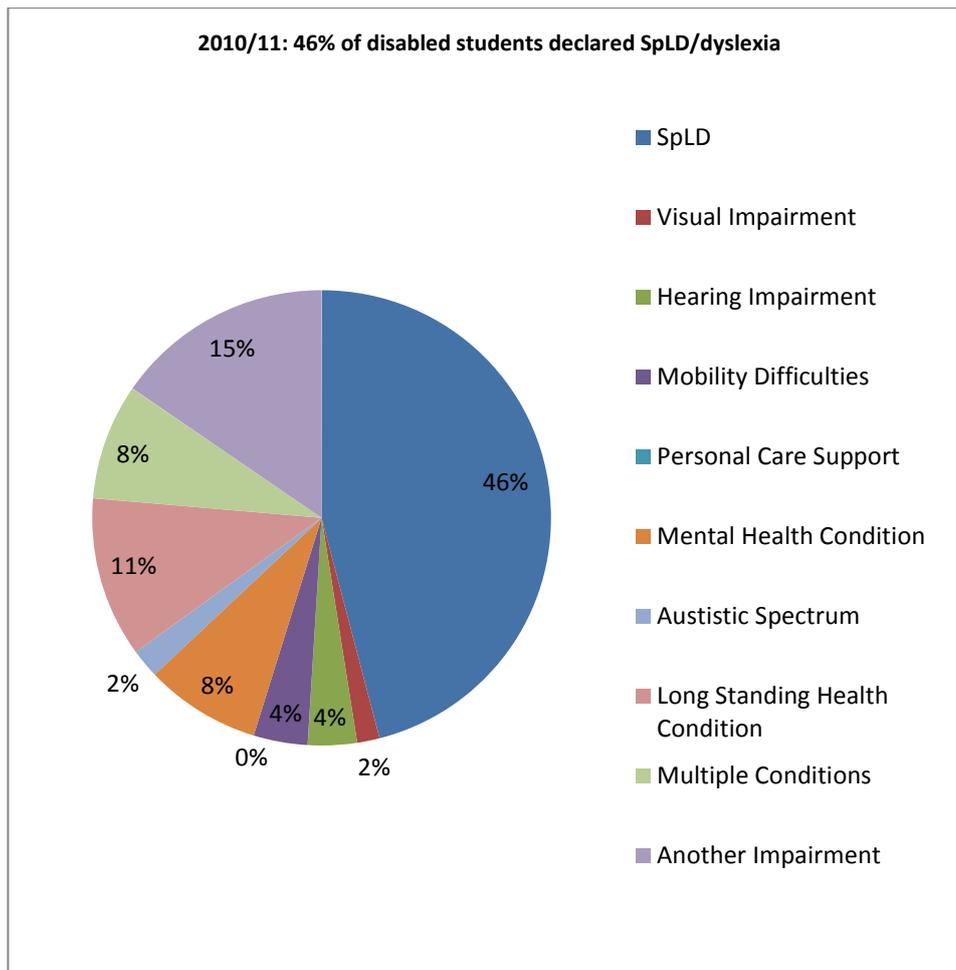
**Figure 1.3 Categories of disability as given by HESA and percentages of UK domiciled disabled undergraduates in each category (HESA, 2011).**

As illustrated in Figures 1.2 – 1.3, students with dyslexia now represent the largest single group of disabled students in HE with 46% of first year undergraduates self-declaring a disability identifying SpLD/dyslexia in 2010/11, whereas in 1994/95 only 15% of students self-declared dyslexia (HESA, 2011). However, these figures may well underestimate significantly the actual number of dyslexic students, as they do not include students who choose not to declare their disability, nor do they include students who are 'diagnosed' after entering HE; the latter represent a significant number. Certainly, the Report of the National Working Party on Dyslexia in Higher Education found that only half of all dyslexic students had been recognised as having dyslexia before they entered HE (Singleton, 1999). The Working Party considered that the increase in the number of dyslexic students entering HE was due not only to widening participation policies and the increase in financial support, but also as a result of fairer exam provision in secondary schools, earlier identification, better provision for schoolchildren, increased public awareness of dyslexia and reduction in the fear of stigmatisation (Singleton, 1999). Indeed, my

personal experience supports these figures as in 1996 only 124 dyslexic students requested help from the dyslexia support services at the university under study (Price, 2003) whereas in 2009 over 1200 students were registered with the dyslexia support services - approximately one third of whom were found to be dyslexic after entering HE.

**The Disability and Discrimination Act 1995 and the Equality Act 2010**

Dyslexia was first mentioned as a disability from a legal and educational perspective in 1970 under the Chronically Sick and Disabled Persons Act when the term 'acute dyslexia' was included in a directive to local education authorities considering 'the provision of access and facilities for the disabled in educational buildings' (Department of Health and Social Security, 1970, p3). Notwithstanding this, the Disability Discrimination Act (DDA) of 1995, which made it unlawful to discriminate against disabled individuals by denying them services that are available to other people, initially excluded students in post-16 education. It was not until September 2002 that this anomaly was addressed with the passing of the Special Education Needs and Disability Act (SENDA) (2001). The DDA was subsequently replaced by the Equality Act (2010) which subsumed a range of anti-discrimination legislation. The DDA proved to be a key driving force affecting widening access and providing a 'major impulse to action' (Riddell et al., 2007, p626); this has continued and been strengthened under the Equality Act (2010).

The Equality Act (2010) defines disability as 'a physical or mental impairment' where the effects are 'substantial and long-term' and where the impairment may affect 'normal day to day activities' including the ability to 'learn or understand'. Importantly, it stipulates that it is 'unlawful for the body responsible for the educational institution to discriminate against a disabled student in the student services that it provides' and that 'reasonable adjustments' should be made if otherwise an individual would be placed at a 'substantial disadvantage' (Equality Act, 2010). Not only is it a requirement that the adjustments must counteract any inequality but also that they must be anticipatory. The provision of reasonable adjustments has far-reaching implications for pedagogy, curriculum design and assessment. This influential disability discrimination legislation has therefore had a significant impact on universities and been a powerful factor in prompting a re-examination of the support provided for disabled students and a re-thinking of teaching and assessment practices. However, changes remain contentious as they raise questions concerning fairness and the maintenance of academic standards as well as competence and fitness to practise; certainly, it has been found that adjustments in pedagogy and curriculum are particularly hard-won (Riddell and Weedon, 2006, Riddell et al., 2007, Riddell et al., 2005a). Riddell and Weedon (2006, p66) cite the example of Liam, a dyslexic fourth-year student at an ancient Scottish university whose coursework was 'first class'. Liam's tutor felt that alternative forms of assessment should be sought as although

he had been allowed additional time in examinations, this was not 'adequate compensation' and 'unlikely to be helpful in overcoming the barriers faced' as he was being assessed 'within a system of assessment that is obviously not giving him a fair deal because he can't really demonstrate what he is capable of' (Riddell and Weedon, 2006, p66).

**The Quality Assurance Agency**

The Quality Assurance Agency for Higher Education (QAA) was established in 1997 to safeguard quality and standards in HE and to check how well HEIs are meeting their responsibilities (Quality Assurance Agency (QAA), 1997). The QAA also identifies good practice, makes recommendations for improvement, publishes guidelines 'to help institutions develop effective systems to ensure students have high quality experiences' and conducts audits and reviews (Quality Assurance Agency (QAA), 1997). Between 1998 and 2001, in response to the Dearing Report, the QAA drew up a Code of Practice (CoP) intended as a guide to best practice. Whilst the CoP is not a statutory requirement, it does identify a series of system-wide key principles (termed precepts), which can be used as reference points by institutions.

Section 3 of the CoP (updated in 2009) is concerned with disabled students. The QAA adopts the social model of disability which, as previously discussed, is underpinned by the premise that individuals are disabled by discrimination and attitudinal and environmental barriers that make it hard for them to participate fully and which restrict their opportunities rather than by their impairments; educational disadvantage and exclusion are not inevitable results of impairment. The central underlying principle rooted within the CoP precepts is that disabled students 'are an integral part of the academic community'; provision should not be seen as an add-on but should be embedded as a core element in strategic planning; institutions should be proactive and anticipate the needs of disabled students rather than responding to individual cases on an *ad hoc* basis. As anticipatory practice is required, it is essential that more is known about the experiences of disabled students in HE from the perspective of the students themselves.

Certainly, the QAA precepts have a wide scope, encompassing a range of issues relevant to disabled students including curriculum design, admission processes and policies, careers, learning and teaching, academic support and academic assessment. Precept 11 is particularly relevant to the present study as it addresses academic assessment and states:

Academic assessment practices ensure that disabled students are given the opportunity to demonstrate the achievement of competence standards and learning outcomes. (Quality Assurance Agency (QAA), 1997, Section 3, p15)

The QAA provides further explanation of the precept and suggests that assessment systems and procedures should be 'sufficiently flexible'; not only might there be 'more than one way of demonstrating the attainment of a learning outcome' but also 'various possibilities should have been considered in the process of programme design' and 'institutions should use a range of assessment methods as a matter of good practice to provide opportunities for disabled learners to show that they have attained the required standard'. Other suggestions include: transparency of assessment criteria and mark schemes; monitoring of both the quantity and timing of assessments to avoid overload; advice for staff on inclusive assessment strategies and the implications for individual students.

The CoP lists the following adjustments for consideration by institutions:

- Flexibility in the balance between assessed course work and examinations.
- Demonstration of achievement in alternative ways, such as through signed presentations or viva voce examinations.
- Additional time allowances, rest breaks and re-scheduling of examinations.
- The use of computers, amanuenses, readers and other support in examinations.
- The availability of examinations or the presentation of assessed work in alternative formats.
- The provision of additional rooms and invigilators for those using alternative arrangements.

In practice, it has been found that 'almost all' HEIs allow dyslexic students an extra ten - fifteen minutes per hour to complete written examinations (Singleton, 1999, p137). Other special arrangements allowed by some HEIs may include use of a word processor, an amanuensis, a reader and in some cases an oral examination rather than a written examination. Although it was found that the latter tended to be limited to the 'new' universities - i.e. post-1992 (Singleton, 1999), more recent research indicates that legislative imperatives have encouraged a wide range of special arrangements throughout HEIs; nevertheless practice appears to remain unevenly distributed (Rust, 2002, Weedon and Riddell, 2005).

**Disability Equality Duty and the Public Sector Equality Duty**

In December 2006 the Disability Equality Duty was introduced requiring public bodies to promote equality of opportunity, to eliminate unlawful discrimination and 'to be proactive in ensuring that disabled people are treated fairly' (Disability Equality Duty, 2006, p5). Disability Equality Schemes were drawn up by HEIs including action plans of practical ways in which improvements would be made and outlining the arrangements for gathering information. HEIs have also been required to produce annual reports summarising the steps taken to fulfil the duty, how information has been gathered and how it has been used. The Disability Equality Duty has helped to encourage HEIs to look at their organisational culture, to create an inclusive environment and to encourage adoption of the social model of disability where the onus is on the institution rather than the individual to change. This has been continued under the Public Sector Equality Duty of the Equality Act (2010) which replaced the Disability Equality Duty. It came into force in April 2011 and explains that providing equality of opportunity for all involves having due regard to:

- Removing or minimising disadvantages suffered by people due to their protected characteristics;
- Taking steps to meet the needs of people from protected groups where these are different from the needs of other people; and,
- Encouraging people from protected groups to participate in public life or in other activities where their participation is disproportionately low. (Equality Duty, 2011, p4)

The Equality Duty (2011, p9) does not require public bodies to treat everyone the same but suggests that they should 'think about people's different needs and how these can be met'. Most significantly, rather than justifying decisions retrospectively, it requires 'a conscious approach and state of mind' in the development of policy options and decisions and also in their review (Equality Duty, 2011, p8). This has important implications for HEIs and the need to embed inclusive practice within university strategy at the planning stage.

# Defining dyslexia

Dyslexia has been characterised by controversy over fundamental issues such as definition, diagnosis, cause, remediation and even its very existence since Pringle Morgan (1896), a general practitioner, first published an account in the British Medical Journal over a century ago. Pringle Morgan described the perplexing case of Percy, 'a bright and

intelligent' boy of 14 who was 'in no way inferior to others of his age' but could 'only with difficulty spell out words of one syllable' and wrote his name as 'Precy'' (Morgan, 1896, cited in Miles and Miles, 1999, p4). Morgan attributed Percy's difficulties to a defect in his visual memory – a view echoed by James Hinshelwood, a Glasgow eye surgeon, who described the difficulty as 'congenital word blindness' and provided one of the earliest definitions:

> By the term congenital word blindness, we mean a congenital defect occurring in children with otherwise normal and undamaged brains characterised by a difficulty in learning to read, so great that it is manifestly due to a pathological condition, and where attempts to teach the child by the ordinary methods have completely failed. (Hinshelwood, 1917, p40)

Hinshelwood (1917) considered the condition was analogous to cases of word-blindness caused by disease, with which he was already familiar, and explained the phenomena by assuming that damage had occurred to the 'visual word-centre' (Miles and Miles, 1999). Similarly, Orton (1925), a paediatric neurologist, observing the high incidence of reversals, mirror imaging and disorders of orientation amongst children with reading difficulties, introduced the term strephosymbolia (symbol twisting). However, unlike Hinshelwood (1917), rather than assuming that some form of damage had occurred to a specific centre, he postulated that these problems arose from anomalies in the normal neurological development process by which the brain became lateralised, with the left hemisphere assuming responsibility for language related functions and the right hemisphere for spatial functions.

Thus dyslexia, or 'congenital word blindness', was viewed by these early pioneers through the conceptual lens of the medical clinician and perceived as a visual difficulty - the symptom of a physiological anomaly. However, the succeeding century has seen many exciting developments as researchers from a range of disciplines including cognitive psychology, education, molecular genetics, neurobiology and behavioural science have striven to understand and explain the puzzling paradox. Dyslexia is no longer regarded as the symptom of a medical condition neither are its effects considered to be confined to the narrow focus of problems with reading and writing.

Dyslexia is often described as a *syndrome* or 'collection of associated characteristics that vary in degree from person to person' (Singleton, 1999, p25). In addition to difficulties with reading and spelling, typical problems include: confusing left and right; difficulties discriminating between sounds such as b/d and f/th/v; poor recall of simple sequences such as the months of the year, the alphabet or the multiplication tables; problems

recalling names, facts, dates, telephone numbers or other simple sequences of digits; pronunciation difficulties; difficulties with fine or gross motor skills (Miles, 1993). Dyslexic students are therefore likely to have encountered myriad difficulties as they have negotiated the academic hurdles, often in the form of summative assessments, on their path to HE.

Although there is broad consensus concerning many of the behavioural characteristics of dyslexia, a universally accepted definition remains elusive. Despite some commonalities, definitions tend to reflect contextual purpose, research interests or causal theory. Indeed, as Miles and Miles (1999, p170) point out, it may well be that 'a single all-purpose definition' is inappropriate as 'different kinds of language are suitable for different purposes'. Notwithstanding this, definitions abound; indeed, Pumfrey and Reason (1991) provide eleven definitions whilst Rice and Brooks (2004) list 40 definitions. Many definitions may be described as 'discrepancy definitions' in that they reflect the requirement for a discrepancy to be found between literacy skills and intellectual ability; an example is the oft-quoted definition given by World Federation of Neurology where dyslexia is described as:

> A disorder in children who, despite conventional classroom experience, fail to attain the language skills of reading and writing and spelling commensurate with their intellectual abilities. (World Federation of Neurology, 1968, cited in Pumfrey and Reason, 1991, p14)

Likewise, Critchley and Critchley retain the discrepancy requirement whilst also emphasising other exclusionary causal criteria:

> Developmental dyslexia [is] a learning disability which initially shows itself by difficulty in learning to read and later by erratic spelling and by lack of facility in manipulating written as opposed to spoken words. The condition is cognitive in essence and usually genetically determined. It is not due to intellectual inadequacy or to lack of sociocultural opportunity, or to emotional factors, or to any known structural brain defect. (Critchley and Critchley, 1978, cited in Rice and Brooks, 2004, p138-139)

Until recent years much research had centred on younger children and been dominated by difficulties in learning to read. Definitions have tended to reflect this narrow focus and the terminology employed has been bound up with such difficulties - terminology that is largely inappropriate for the dyslexic university student whose reading may well be at an adequate level or who may be able to employ compensatory strategies (McLoughlin et al.,

1994). Indeed, Miles and Miles (1990, pix) observe 'there is no contradiction in saying that a person is dyslexic while nevertheless being a competent reader; and indeed many dyslexic adults come into this category'; such individuals do, nevertheless, continue to experience the underlying difficulties associated with dyslexia, which were responsible for their slow acquisition of literacy in childhood, although the 'incongruity' between general ability and literacy skills 'can be very subtle' (McLoughlin et al., 1994, p19). McLoughlin suggests that the following definition is more relevant and appropriate to adults who are dyslexic:

> Dyslexia is an inefficiency in the cognitive processes that underlie effective performance in conventional educational and workplace settings. It has a particular impact on written and verbal communication, as well as organisation, planning and adaptation to change. (McLoughlin, 2004, p179)

However, such a definition fails to reflect the full 'pattern of difficulties' (Miles, 1993) associated with dyslexia. Indeed, a clear definition acceptable to all remains elusive, and may well be inappropriate; as the research base has expanded definitions, in turn, have become more extensive. Certainly the British Dyslexia Association (BDA) attempts to capture the wider essence of dyslexia:

> Dyslexia is a specific learning difficulty which 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 effects can be mitigated by appropriately specific intervention, including the application of information technology and supportive counselling. (British Dyslexia Association, 2007)

Unlike many previous definitions, the one offered by the BDA omits exclusionary criteria or any attempt at causal explanation. However, although it emphasises problems with information processing and short-term or working memory, it was not drawn up specifically to reflect the impact of dyslexia in HE.

In 2005, following a request from Local Education Authorities (who were at the time responsible for administering the DSA), the Department for Education and Science (DfES) convened a Working Group whose main aim was to clarify what would constitute acceptable evidence of dyslexia and other SpLDs in HE. Rather than relying on one of the

very many working definitions of dyslexia with their emphasis on differing aspects of dyslexia, the Working Group drew up a 'description' of dyslexia:

> Dyslexia is a combination of abilities and difficulties; the difficulties affect the learning process in aspects of literacy and sometimes numeracy. Coping with required reading is generally seen as the biggest challenge at Higher Education level due in part to difficulty in skimming and scanning written material. A student may also have an inability to express his/her ideas clearly in written form and in a style appropriate to the level of study. Marked and persistent weaknesses may be identified in working memory, speed of processing, sequencing skills, auditory and/or visual perception, spoken language and motor skills. Visuo-spatial skills, creative thinking and intuitive understanding are less likely to be impaired and indeed may be outstanding. Enabling or assistive technology is often found to be very beneficial.(SpLD Working Group, 2005, p5)

As this definition, or description, is consistent with the social model of disability, was drawn up with HE students in mind, emphasises strengths as well as weaknesses and is the recognised basis for the identification of dyslexia and provision of the DSA, it is the definition used in my study.

## Aetiology of dyslexia

Since the early days of Hinshelwood (1917) and Orton (1925) the search for an underlying cause of dyslexia has developed apace. Although no clear, undisputed aetiology of dyslexia has been determined, it is widely accepted that it is a constitutional condition and that genetic factors are important (Beaton, 2004). In this section I outline the most widely accepted theories.

**A causal theoretical framework**

Almost two decades ago Morton and Frith (1995) developed an inclusive causal model, or theoretical framework; this brought together many disparate views and continues to provide a useful explanatory structure for dyslexia. The framework entails three interrelated levels: biological, cognitive and behavioural - whilst environmental and cultural factors can influence each level. Dyslexia is therefore perceived as a developmental disorder of biological origin leading to cognitive differences resulting in a particular pattern of behavioural signs (Frith, 1995). As Frith (1997, p2) makes clear, 'the behaviour can be explained by a cognitive dysfunction; the cognitive dysfunction can be explained by a brain dysfunction'. The term 'cognitive dysfunction' implies a specific

problem in the normal working of a mental component and may be inferred only from observed behaviour. It is at the biological and environmental level that causes and cures may be found and at the behavioural level where assessments and observations may be made (Frith, 1997). Notwithstanding this, Frith (1997) considers that it is important to take account of the interaction between biological and environmental factors which may affect behavioural signs; factors may be protective, such as excellent remedial teaching, or aggravating, such as socio-economic problems (Frith, 1995).

**A phonological processing deficit**

Influenced by the work of Orton (1925) and Hinshelwood (1917), most early research into the causes of dyslexia focused on visual processing difficulties and the reading problems of young children; however, following a seminal review by Vellutino (1979) research attention began to focus on verbal and phonological skills. Consequently, by the 1980s the phonological deficit hypothesis came to prominence and remains the dominant theory today. Phonological processing is considered to be 'the way in which people process phonemes, or sounds within words at the cognitive rather than the hearing level' (Mortimore, 2008, p52). Phonological awareness is therefore the ability to identify and manipulate the sounds in words and is considered fundamental to learning to read and spell (Gallagher et al., 2000, Goswami and Bryant, 1990, Bradley and Bryant, 1983).

At the biological level brain abnormalities have been found within the left cerebral hemisphere which are thought to affect phonological processing at the cognitive level (Paulesu et al., 1996). Most significantly, a number of studies have shown that not only is a weakness in phonological processing critical at the early stages of acquiring literacy skills, but these weaknesses persist into adulthood even when basic literacy has been acquired (Gallagher et al., 2000, Hatcher et al., 2002, Snowling et al., 1997). Indeed, as Hatcher et al. (2002, p120) have found, the residual difficulties such as 'a slow speed of reading, phonetic spelling and poor written expression' persist and continue to have an impact on the academic performance of dyslexic students even when literacy skills have been well compensated.

**The automaticity deficit hypothesis**

Although phonological skills are considered central to gaining literacy, and many remedial teaching programmes since the 1980s have been developed on this basis, phonological difficulties alone do not account for the myriad problems associated with dyslexia – most particularly those experienced by dyslexic students in HE.

In 1990 Nicolson and Fawcett (1990) proposed a controversial alternative framework for dyslexia research: the automaticity deficit theory. Rather than being regarded as primarily a language-based problem, they suggested that the underlying difficulty might be perceived as one of automatisation failure, producing a more generalised difficulty in the acquisition of skills. Skill automatisation is defined as 'the process by which, after long practice, skills become so fluent that they no longer need conscious control' (Nicolson et al., 2001, p508); a skill which has become automatised does not place demands on the overall processing capacity and therefore does not impede competing activities. An automatisation difficulty would have deleterious consequences for a wide range of skills unrelated to reading, as only by allocating additional resources to the task are dyslexic individuals able to perform at the 'normal' level; as Fawcett and Nicolson (2004) explain, dyslexia is akin to operating in a foreign country. In addition to weak phonological skills and poor literacy, problems have been identified with balance, motor skills, memory and processing speed; Nicolson et al. (2001) suggest that an abnormality in the cerebellum should be considered the prime candidate for the cause of these difficulties.

**Neuro-pathological causation**

Evidence for a neuro-pathological causation of dyslexia is certainly persuasive. Early research, which relied on post-mortem studies of the brains of dyslexic individuals, indicated anatomical differences with a predominance of anomalies in the left hemisphere including ectopias and dysplasias and an unusual hemispheric symmetry of the planum temporale (Galaburda et al., 1985, Geschwind and Levitsky, 1968). In the last twenty years research at the neurological level has been facilitated by the development of brain imaging techniques such as Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI), which allow investigation of the living brain. Brain activity is indicated by increased blood flow; PET and MRI scans give a computer display indicating 'hot-spots' where activity is taking place in the brain.

**The magnocellular deficit hypothesis**

In recent years such brain imaging techniques have led to a resurgence in the study of the visual aspects of dyslexia and, most particularly, the role played by magnocellular neurones. Fluent reading involves translating the orthography, or visual form of words – the shape of letters, their order in words and common spelling patterns - into meaning directly without the need to sound out (Stein, 2001). The magnocellular deficit hypothesis proposed by Stein (2001) and subsequent studies (Stein, 2007) indicate that the visual magnocellular system is impaired, with many dyslexic individuals showing weak vision motion sensitivity and poor binocular stability. This, however, is not to dismiss the

phonological basis to dyslexia. Indeed, magnocellular neurones are not restricted to the visual system but are also present in all sensory and motor systems. Indeed, PET scans have indicated abnormal cerebellar activation during tasks involving motor skills (Nicolson et al., 1999).

Stein (2001) suggests a genetic basis for poor transient sensitivity. The cerebellum or 'hind brain', described by Stein (2001, p27) as the brain's 'autopilot' is considered to be the 'major system for integrating sensory information, for predicting the expected consequences of actions in terms of muscular outcomes and for tuning automatisation actions' (Fawcett and Nicolson, 2004, p25). Sensory information is communicated to the cerebellum via the magnocellular system. Stein (2001, p26-27) suggests that 'magnocells in general might be affected' in dyslexic individuals and believes that 'there may be some underlying factor that determines the development of all magnocells throughout the brain'. Indeed, since the early pioneering days of Hinshelwood (1917), it has been recognised that reading difficulties have a tendency to run in families; a number of twin studies have indicated strong heritability (see DeFries, 1991, Gallagher et al., 2000). More recently work by researchers such Cope et al. (2005) and Stevenson et al. (2005) has identified a susceptible gene on chromosome 6p that is associated with an increased risk of dyslexia; however, such research remains in its infancy.

Lack of a universally accepted definition or a clear causation of dyslexia is not, however, to say that there is no consensus over the behavioural manifestations and the difficulties this may present for students in HE.

## The impact of dyslexia on study in HE

Although most dyslexic students who reach HE have, on the surface, achieved a competent level of literacy the underlying cognitive differences persist despite the development of compensatory strategies (Riddick et al., 1997, McLoughlin et al., 1994). Literacy skills can appear to be superficially adequate as single-word reading accuracy may well be at the average level; however, it is likely that a dyslexic student's reading rate will be slow, reading will lack automaticity and comprehension may well be compromised as cognitive resources are employed with decoding text rather than absorbing content (Simmons and Singleton, 2000, Everatt, 1997, Singleton, 1999). These difficulties are likely to affect many of the skills required in HE including revising or preparing for examinations, as detailed below. Some of the difficulties often experienced by dyslexic adults are noted by Reid and Kirk (2001) as:

- Difficulties in reading accuracy.

- Speed of reading difficulty.
- Persistent spelling errors.
- Difficulties with grammatical structure.
- Sequencing difficulties in words and in ideas.
- Need to re-read text.
- Difficulties planning and organising written work.
- Difficulty in memorising facts.
- Difficulty in memorising formulae.
- Following a number of instructions if given at the same time.
- Taking notes- for example, in lectures.
- Planning study and general study skills.
- Transferring learning from one situation to another.
- Noting inferences in text.
- Written examinations, particularly if timed. (Reid and Kirk, 2001, p3)

In addition, the National Working Party on Dyslexia in Higher Education includes the following difficulties:

- An inability to skim through or scan over reading matter.
- Frequent loss of place when reading.
- Misreading instructions on examination papers.
- Misreading or misinterpreting examination questions. (Singleton, 1999, p28 and p142)

Many of the skills listed above rely on working memory. Indeed, there is a school of thought that the pattern of difficulties associated with dyslexia in adults may well be accounted for by a specific memory deficit (McLoughlin et al., 1994) which is also implicated in the acquisition of literacy skills (Gathercole and Baddeley, 1990, Berninger et al., 2006). Although reading and spelling may well be more effortful than for non-dyslexic students, it is often problems with working memory and processing speed and the need to carry out tasks placing high demands on working memory that have the greatest impact on study in HE and are 'the most significant and pervasive problem dyslexics experience' (McLoughlin et al., 1994, p17). Certainly, a common indicator of dyslexia in adults is a weakness in working memory. Morgan and Klein cite the words of Mark, a mature adult, describing his memory problems:

> My memory is like a bridge going across a deep ravine and if I load too much on, the bridge will break. (Mark, quoted in Morgan and Klein, 2000, p14)

Working memory (sometimes referred to as short-term memory) is considered to be 'the immediate mental workspace sharing its limited resources between the functions of processing and storage' (Pumfrey and Reason, 1991, p74). Unlike long-term memory, working memory has limited capacity – it is where information is held for a short time while it is manipulated or processed; it is able to activate components of long-term memory (Baddeley, 1996) and 'supports human thought processes by providing an interface between perception, long-term memory and action' (Baddeley, 2003, p829) and is therefore crucial to the ability to store and retrieve information and fundamental to educational success. Working memory difficulties and a slow speed of processing may well mean that a dyslexic student's working memory is quickly overloaded as information is held onto longer in order to be processed. This is likely to affect revision skills as well as the student's ability to extract meaning from complex text and to organise ideas in examinations, as these activities require simultaneous retention and consideration of information.

The most widely accepted model of working memory is that first proposed by Baddeley and Hitch (1974) which posits a central controlling system – the central executive – which supervises two main slave systems: the phonological loop, which is responsible for the manipulation of verbal information; the visuo-spatial sketchpad, which is responsible for information with a strong visual or spatial component. This model was later modified by Baddeley (2000) to include the episodic buffer, which acts as a temporary storage system linking working memory with long-term memory and integrating information from different sources; recent research has attempted to explain the means of this linkage (Baddeley, 2007).

Many of the skills required in HE such as taking notes at speed in lectures, extracting information from complex text, organising ideas into a coherent, logical structure in extended written assignments and revising for examinations impose considerable demands on the working memory. The phonological loop, which acts as an articulatory rehearsal system, is thought to be crucial for rote learning (Blakemore and Frith, 2005 cited in Desmet, 2007). The National Working Party on Dyslexia in Higher Education makes the following observation about the impact of dyslexia on examinations and assessments:

> Written examinations are particularly stressful for students with dyslexia because they usually have few methods which are appropriate for this situation. Because their note-taking in lectures has been deficient, they typically have inadequate material from which to revise, in a form which they can absorb. *They find rote-learning ineffective and so need very different ways of revising.* Their

spontaneous recall is usually very limited, and so however hard they have prepared, they may feel that they know very little … in the examination situation itself, panic can quickly set in and may immobilise them. (Singleton, 1999, p38, emphasis added)

Examinations matter; they matter to HEIs and to employers (Brown and Glasner, 1999) but most of all they matter to students. They are 'the deliberate and overt measurement of educational performance' (Broadfoot, 1996, p6); they are a form of discipline, a way of 'passing judgment on people' (Broadfoot, 1996, p3), the yardstick by which students are measured and 'the instrument for sorting the good students from the bad' (Biggs and Tang, 2007, p16). In explaining the importance of examinations within the structure and history of the educational system Bourdieu and Passeron argue that:

> It is all too obvious that, at least, in present-day France, examinations dominate university life … the examination is not only the clearest expression of academic values and of the educational system's implicit choices: in imposing as worthy of university sanction a social definition of knowledge and the way to show it, it provides one of the most efficacious tools for the enterprise of inculcating the dominant culture and the value of that culture. (Bourdieu and Passeron, 1977, p142).

Over thirty years later (and in the UK), Bourdieu and Passeron's (1977) words still have resonance. HEIs not only equip students with knowledge but they also act as sites for 'the accumulation and distribution of social capital' (Riddell et al., 2005a, p57); HE is a 'potentially empowering experience' (Fuller et al., 2004b). Examinations dominate university life, they are *the* central catalyst for learning influencing not only how students spend their time but also 'how they come to see themselves as students and then as graduates' (Brown et al., 1997, p7). Results convey important messages to students about 'what they can and cannot succeed in doing' (Boud and Falchikov, 2007b, p3), they have 'far-reaching consequences' often determining the next stage in a student's career (Singleton, 1999, p137), influencing life chances and acting as a 'passport to better paid work' (Riddell et al., 2005a, p1); they are a crucial source of empowerment - most particularly for dyslexic students.

Examinations and assessment practice are increasingly under scrutiny as HEIs respond to accommodate the needs of an ever more diverse student population. If inclusive practice is to be embedded within university culture rather than considered later as an afterthought after choices have been made and strategic decisions taken, it is important to include the voices of dyslexic and disabled students within the debate. At present little

is known about dyslexic students' experience of HE and even less is known about their experience of examinations. My work explored the experience of examinations from the perspective of dyslexic students themselves as a way of understanding the 'lived reality' (Barton, 1996, p3) of dyslexic students in HE; it adds their voices to the debate.

## Summary

In this chapter I have set out the backdrop to my research including recent government initiatives and legislation that has placed the imperative on HEIs to be proactive and anticipatory in their inclusive practice. I have outlined the historical background to dyslexia research and current theories of dyslexia including the impact of dyslexic difficulties on study in HE. In the following chapter I discuss existing research relevant to my own study as well as related theories and concepts.

# Chapter Two: Setting the scene: a journey through the literature

## Introduction

In this chapter I set the scene for my own work by critically engaging with previous research that has explored the experiences of dyslexic students in HE. I also discuss relevant concepts including theories of learning, students' approaches to learning, modes of assessment used in higher education and the impact of assessment on learning. I begin by briefly setting out my 'angle of repose' (Richardson, 1994, p522) or theoretical framework (I expand on this in Chapter Three) since inevitably this influences the perspective I take both in my own study and also when reviewing the literature and previous research.

I have taken a social constructionist approach; this emphasises the contextual and subjective nature of knowledge and the importance of social interaction and language in the meaning-making process (Crotty, 2003, Berger and Luckmann, 1966, Burr, 1995). It is underpinned by the following basic tenets:

- Knowledge and the way we understand the world is culturally and contextually bound.
- Knowledge is created through social interaction - language is often important in this process.
- There is no such thing as an objective 'fact'; all knowledge is derived from taking an individual or particular perspective. (from Burr, 1995, p3-8)

From this perspective the reality perceived by individuals is subjective and influenced by societal conventions, expectations and norms. My interest was in the experiences of individual dyslexic students and their ways of constructing meaning and knowledge which I understood to be situated in their particular contexts. Reviewing the literature helps in understanding those contexts.

My work is underpinned by the social model of disability, a construct first developed in the 1970s by the Union of Physically Impaired Against Segregation (UPIAS).This model draws a distinction between impairment and disability arguing that 'it is society which disables physically impaired people' (UPIAS, 1976, p4). The belief that individuals are disabled by restrictions imposed by society or the environment is central to the social

model; it locates the problem, and therefore the need to change, with society rather than with the individual (Oliver, 1983) and attention is shifted from the treating the individual to the removal of exclusionary barriers (Shakespeare, 2006). This is in contrast to the medical model, or in Oliver's (1990, p1) terms the 'individual' or 'personal tragedy' model of disability which locates the 'problem' of disability and the need to change with the individual.

In my work, however, I was also mindful that although Oliver (1996), amongst many others (e.g. Barton, 1998, Barnes, 1998), argues powerfully for a distinction between impairment and disability, this polarisation can be problematic. Shakespeare (2006, p36) rejects the binary distinction and 'crude' dichotomy and criticises the social model for failing to recognise the 'inextricable interconnection' between impairment and disability; he advocates an alternative social-contextual approach which recognises this interplay. Further, he argues that an 'interactional' approach, rather than defining disability as arising entirely from extrinsic disabling barriers within society also acknowledges factors intrinsic to the individual, such as the 'nature and severity' of the impairment and the individual's attitude, personal ability and personality (Shakespeare, 2006, p55). He criticises the social model for the supposition that impairments are neutral instead of, in many cases, 'limiting or difficult' and suggests that many disabled individuals experience both intrinsic limitations imposed by their impairment and also extrinsic limitations imposed by 'social discrimination' (Shakespeare, 2006, p41).

Until recent legislation provided the driving force for change, the conventional medical model of disability prevailed in HE: disability was regarded as a 'master trait'; the onus was on disabled students to adapt to traditional educational expectations, including assessment practice (Porter, 1994, 70). The 1996 Tomlinson Report was the result of the first national inquiry in England into post-school educational provision for students with learning difficulties. It played a pivotal role in reframing policy and practice and resulted in a major cultural shift as it placed the social model of disability at the very heart of inclusive practice. Rather than expecting disabled students to turn themselves into 'round pegs for round holes', Tomlinson (1996) proposed that institutions should themselves change to accommodate a diverse range of students. Tomlinson defined inclusive practice as:

> The greatest degree of match or fit between individual learning requirements and the provision that is made for them. (Tomlinson, 1996, p26)

However, although increasing numbers of dyslexic students are entering or being included in HE (HESA, 2011), this increase in participation does not itself represent

inclusive practice (Waterfield and West, 2006b) if the institutional culture does not change and students are assimilated into or accommodated within 'an essentially unchanged system of educational provision and practice' (Barton, 2003, p13). The theoretical literature on inclusion illustrates how it does not mean simply 'broadening the base of recruitment' to include students previously excluded, but should also focus on 'the criteria for judging success and by whom and how success is determined' (Nunan et al., 2000, p65). According to the bulk of literature, it involves cultural change and the transformation of attitudes, behaviour and practice.

## Researching the experiences of disabled students in HE

Historically research into the experiences of disabled learners in HE has been a neglected field (Hurst, 1996); disabled students have remained the 'invisible scholars' (Stage and Milne, 1996), an 'almost invisible group' in HE (Riddell, 1998, p212). Until recent widening participation initiatives and anti-discrimination legislation came into effect few studies had been carried out and those that had related in the main to physical barriers caused by the environment and technical difficulties accessing the curriculum or student accommodation (e.g. Baron et al., 1996, Tinklin and Hall, 1999). Very little was known about the experience of HE from the perspective of disabled students themselves. As I described in Chapter One, students in post-16 education were initially excluded from the DDA (1995). This anomaly was addressed by the Special Education Needs and Disability Act (SENDA) (2001) - later part IV of the DDA which came into effect in September 2002 and now subsumed within the Equality Act (2010) - which made it unlawful to discriminate against disabled students in the provision of services including curriculum, pedagogy and assessment. This key legislation proved to be 'a major impulse to action' (Riddell et al., 2007, p626) influencing not only access and support for dyslexic students but also stimulating research.

A number of published studies have looked mainly at policy and provision both pre and post implementation of the DDA Part IV (e.g. Tinklin et al., 2004, Riddell, 1998, Mortimore, 2012), whilst others have focused primarily on barriers to participation (e.g. Tinklin and Hall, 1999, Shevlin et al., 2004). Some studies have focused on the experiences of disabled students studying within one particular subject area (e.g. Baron et al., 1996, Hall and Healey, 2005), or those with physical disabilities or mobility problems (e.g. Borland and James, 1999, O'Connor and Robinson, 1999), whilst others have focused on only one particular aspect of academic life such as note-taking (Suritsky, 1993, Hughes and Suritsky, 1994), the use of technology (Price, 2006), experiences of fieldwork (Hall and Healey, 2005) or performance in written assessments (Osborne, 1999). A few studies have explored HE from the perspective of disabled students themselves, although some

of these have been very small-scale (Holloway, 2001, Goode, 2007, Hanafin et al., 2007) or, if on a larger scale, have relied on group interviews (Fuller et al., 2004a) or questionnaire surveys (Fuller et al., 2004b). While most research into the experiences of disabled students has included dyslexic participants, a small number of studies have been conducted which have focused exclusively on dyslexic students, including a large-scale questionnaire survey across 17 HEIs by Mortimore and Crozier (2006), an interview study of 33 dyslexic students across four HEIs by Pollak (2005) and an in-depth, small-scale study involving a writing task, self-esteem and anxiety questionnaires and individual interviews by Riddick et al. (1997). In this section I outline the findings of these studies and other research relevant to my work before exploring in more detail the emotional impact of dyslexia and concepts related to assessment and learning. This is an important step as it ensures that my own research adds to or complements, rather than duplicates, existing knowledge.

As part IV of the DDA provided something of a watershed not only in the number of disabled students entering HE but also in policy, provision and research, I start by discussing the findings of research conducted prior to its implementation followed by that conducted after it came into effect. Firstly, I look at relevant research which has focused on disabled students in general. Secondly, I look at studies which have addressed the particular concerns of dyslexic students.

**Research prior to implementation of part IV of the DDA**

Prior to the implementation of part IV of the DDA in September 2002 two small-scale studies into disability in HE were conducted across Scottish HEIs. The first, undertaken at Stirling University by Baron et al. (1996), explored the barriers to training for disabled social work students whilst the second, carried out by Tinklin and Hall (1999), sought to gain an understanding of the experience of HE from the perspective of disabled students. Although small-scale, both studies involved a number of institutions and employed semi-structured interviews, allowing questions to be clarified and explored in depth. However, Baron et al. (1996, p365) limited their research to only eight disabled trainee social workers (alongside eight practice teachers and seven tutors) and did not give details of their impairments. Although interviews were recorded they were not fully transcribed. Patton (2002, p380), however, advises that it is necessary 'to capture the actual words of the person being interviewed'; similarly, Hurst (1996, p133) suggests that the views of disabled students should be 'reported verbatim'. In contrast with the narrow base of Baron et al's (1996) study, Tinklin and Hall (1999) sought the perspectives of students with a range of impairments, studying a variety of subjects across nine different HEIs - although again information about the number of dyslexic students within the sample of

twelve students interviewed was unspecified. Both studies concluded that a reactive rather than a proactive approach to support was prevalent at the time. Tinklin and Hall (1999, p193) termed this a 'pragmatic approach' as resources were channelled towards helping disabled students overcome obstacles rather than being directed towards the removal of obstacles. Similarly, both studies noted a range of barriers that excluded students from full participation, including initial entrance procedures and access to information as well as a lack of awareness about disability from staff. Most crucially, from the perspective of my own work, Baron et al. (1996, p372-373) found that not only were dyslexic students 'sensitive about disclosure of their dyslexia' but also assessment based on the HE tradition of 'privileging the written word' placed dyslexic students at a disadvantage.

Also pre-dating the implementation of part 1V of the DDA, a small-scale investigation was carried out by Holloway (2001) at an English university; it involved both semi-structured interviews with six disabled students and analysis of university policy documents. Holloway (2001, p598) acknowledges the limitations in size of her study and recognises that findings 'cannot claim to have a wider applicability'; nevertheless, semi-structured interviews allowed students to speak freely and to raise issues of possible relevance to other disabled students and to other HEIs. Many participants expressed concern about time pressure and the additional stress experienced in negotiating special arrangements such as extra time in examinations. These are recurring themes in the research literature (Stage and Milne, 1996) and reflect the individual-deficit approach to disability provision, described by Riddell (1998, p204) as the 'liberal approach', where 'the onus is on the individual to effect change for him/herself'.

**Research post implementation of part IV of the DDA**

Although equal opportunities policies are still in their infancy, it is clear that some changes have taken place within universities in the light of the legislative imperative provided by implementation of part IV of the DDA and later by the Equality Act (2010).

In 2002, in an Economic and Social Research Council (ESRC) funded project, *Disabled Students and Multiple Policy Innovations in Higher Education,* Riddell et al. (2002) set about the task of exploring current policy and practice and the way in which it was influenced by or was influencing other priorities within HEIs in the light of the DDA part IV. They included a questionnaire survey of all HEIs in Scotland and England, case studies of eight HEIs and case studies of 48 disabled students within those eight HEIs. As the survey was concerned, in the main, with policy and practice, questionnaires were sent to senior management within HEIs. Comparisons were made between provision in Scotland and England and also in terms of pre or post 1992 HEIs as 'new and old universities have

different histories in terms of governance, funding and degree-awarding powers' (Riddell et al., 2005b, p629). Findings indicated that considerable progress had been made since the introduction of anti-discrimination legislation. Nevertheless, interviews with disabled students suggested that gaps remained between policy and practice: resources often tended to be devoted to helping individual students negotiate barriers rather than to fundamental change within institutions and lecturers appeared reluctant to making adjustments to teaching and learning. Thus, whereas HEI policy supported the social model of disability, in practice the medical model prevailed. Cultural barriers were also evident as lecturers, 'particularly in the pre-92 universities', expressed concern that providing alternative forms of assessment might result in a lowering of standards (Riddell et al., 2004, p23). Equality was sometimes conceptualised as 'treating everyone in exactly the same way' (Riddell et al., 2005a, p52) which, instead of guaranteeing equality, might be seen to advantage those already advantaged (Bourdieu and Passeron, 1977). However, it was clear that in the light of recent legislation significant steps had been taken in provision for disabled students and that rather than the *ad hoc* reactionary approach previously found by Tinklin and Hall (1999), institutions were beginning to move towards a more proactive, anticipatory approach (Riddell et al., 2005a).

In September 2001, on the eve of new legislation and in response to Hurst's (1996) call for the voice of disabled students themselves to be heard, Fuller et al. (2004b) instigated the initial phase of an 18 month project. This represented one of the first systematic analyses of the barriers faced by disabled students - disabled students' themselves were to be consulted. The aim was to identify and evaluate students' experiences of teaching, learning and assessment and to make recommendations to improve practice. Although narrow-based in that it was carried out across only one UK HEI, the response rate was high and postal questionnaires were completed by 173 disabled students, approximately 35% of whom were dyslexic. It emerged that one in eight students had taken their disability into account when choosing their course and field of study; this figure doubled to one in four in the case of dyslexic students. Most significantly, in relation to my study, dyslexic students chose 'courses in which learning and assessment required little written work, or few or no examinations' (Fuller et al., 2004b, p308). Two thirds of dyslexic students reported problems note-taking at speed in lectures or making field notes whilst off campus as well as difficulties coping with the volume of reading required, dealing with non-user-friendly hand-outs and accessing information in the library. Most crucially, barriers in assessment were identified, not only assessment in the form of timed written examinations, but also assessed coursework and to a smaller extent assessed oral presentations. Many students mentioned nervousness and anxiety about assessment as well as the excessive time expended finding out about the support and assistance available for both learning and assessment (Fuller et al., 2004b).

Findings from the initial questionnaire-based phase of Fuller et al.'s (2004b) study were explored further in group interviews; approximately 30% of the twenty students who took part were dyslexic and a further 20% declared multiple impairments (of which dyslexia may have been one) (Fuller et al., 2004a). However, neither the nature of the students' impairments nor their field of study was reported in the published direct quotations from students, as the researchers aimed to 'identify the experiences and concerns relevant to all disabled students' (Fuller et al., 2004a, p458-9). While group interviews are believed to encourage 'self-disclosure among participants' and to promote more open discussion of sensitive issues than might be possible in individual interviews as well as allowing researchers to hear participants talking with their peers (Wilson, 1997, p209), they are not without their difficulties. Dynamics within a group may preclude the disclosure of very personal information (Watts and Ebbutt, 1987) and responses may be subject to 'group think', if 'group culture' interferes with 'individual expression' (Fontana and Frey, 2008, p128). As in the first phase of the study, students highlighted difficulties with note-taking and accessing information (Fuller et al., 2004a). Most significantly, however, concerns were voiced about assessment; it was clear that many students had chosen not only their course and HEI on the basis of the mode of assessment but also modules within the course. The third phase of the project surveyed non-disabled students and the final phase, carried out in 2003, after implementation of part IV of the DDA, targeted disabled students studying geography, earth and environmental sciences and related subjects across six HEIs; it had the advantage of encompassing a broader range of institutions although across a narrower range of subjects. Findings had significance for my own work as they showed that the most prevalent barrier, identified by approximately two thirds of disabled students, involved assessment (Healey et al., 2006a).

Weedon and Fuller (2004) sought to take advantage of the benefits of the survey approach to explore a range of issues across a broad field, whilst overcoming some of the methodological limitations of surveys such as the inability to provide fine detail or explanatory information. Their initial questionnaire-based survey formed phase one of a four-year longitudinal mixed methods project funded by the ESRC/TLRP, *Enhancing the quality outcomes of disabled students' learning in higher education.* It explored the learning experiences and outcomes of over 1000 disabled students across four discipline areas in four HEIs. Responses to questionnaires were anonymous to reduce the 'social desirability response' intrinsic to questionnaires (Robson, 2002, p231). In this way baseline information was gathered allowing change over time to be plotted and also aiding development of specific research questions to be addressed in interviews during phase two. As with the earlier studies, the researchers were particularly interested in barriers to learning and also evidence of good practice. Dyslexic students formed the

largest single group of disabled students (604) in the survey; Weedon and Riddell (2005) provide an analysis of the responses given by dyslexic students. Although discussion concerning the findings of the survey focused largely on similarities and differences between HEIs, factors relevant to students' experiences of assessment emerged. Approximately half the dyslexic students were unclear about assessment criteria and many also found written coursework problematic. Furthermore, despite a greater diversity in assessment practice than had traditionally been the case (Rust, 2002), fewer than one third of the dyslexic respondents indicated that they had experienced flexibility or variety in the format of the assessment, other than extra time. 'This lack of flexibility was most evident in the most traditional institutions' (Weedon and Riddell, 2005, p6). This may well reflect that, as Tinklin et al. (2004, p652) found, academics and senior managers in HEIs were concerned that providing alternative means of assessment might result in 'lowering standards'.

Negative attitudes towards change were also identified by Hanafin et al. (2007) and Shevlin et al. (2004) who reported on an Irish study exploring the assessment challenges of 16 disabled students, seven of whom were dyslexic. Although the study was small-scale, it was carried out across two HEIs and included semi-structured interviews with students from a range of disciplines. Assessment was 'fraught with additional limitations' for disabled students, particularly when they were required to demonstrate their understanding through written assessment within a rigid time frame (Hanafin et al., 2007, p435). Access to lecture notes was described as a 'burning issue' as they were the 'currency' for revision; provision of notes was piecemeal, there was much variability between departments and it was often considered to be an add-on or a 'private grace and favour arrangement' (Hanafin et al., 2007, p440) - further evidence of the pragmatic response observed by Tinklin and Hall (1999). Dyslexic participants were 'far more likely to encounter responses coloured by ambivalence and suspicion' than other disabled students as their difficulties are relatively invisible; although institutional policy supported the social model, Shevlin et al. (2004, p27) argue that in practice the medical model was 'deeply ingrained and dominant'. Many students were denied access to notes as lecturers considered that this might 'interfere with the competitive hierarchy of the examination' (Hanafin et al., 2007, p440). Similar findings were reported by Riddell et al. (2005a, p92) who found that lecturers were reluctant to comply with a request for lecture notes in electronic format before lectures as this might dissuade students from attending lectures, whilst some lecturers considered lecture notes to be their intellectual property and others argued that they 'lecture spontaneously' without the aid of formal notes. Dyslexic students appear, therefore, to be denied their entitlement to lecture notes as such provision might confer advantages on other students. Importantly in terms of my work, Hanafin et al. (2007, p438) observe that 'there is little understanding about how disabled

students experience assessment in higher education nor of the effects of assessment on them'. They make a strong case for assessment reform including scrutiny of the 'taken-for-granted nature of the assessment *modus operandi*' to ensure that it does not discriminate against individuals or groups (Hanafin et al., 2007, p443); rather than assessment '*of* learning', they suggest that assessment '*for* learning' should be the overriding principle (Hanafin et al., 2007, p444, original emphasis).

A more recent small-scale, in-depth study of note was undertaken by Goode (2007), who sought to involve students as intimately as possible in the research process to reflect their own individual experiences. Participatory research involves research participants collaborating closely in the research process and draws on their expertise (Hanson et al., 2007). Most crucially, it is 'the alignment of power within the research process' that differentiates participatory research from conventional approaches to research (Cornwall and Jewkes, 1995, p1668). Rather than control of the research resting solely with the researchers, participatory research involves some devolving of ownership of the research to the participants (Cornwall and Jewkes, 1995). It is research *with* rather than *on* people (Reason and Heron, 1986). Goode (2007) involved 20 diversely disabled students across different departments within one university and explored a range of topics including learning and teaching and experiences of assessment; findings were therefore particularly relevant to my work. Not only were interviews recorded and transcribed but, unlike the previous studies, Goode (2007) also employed video recordings to capture incidents demonstrating good practice and also hurdles faced by disabled students in a range of locations on the university campus. Recordings were used to validate interpretation of the data and also for staff training. Pertinent factors that emerged included the need for dyslexic students to draw attention to themselves and 'become extravisible in a negative way' if material or alternative forms of assessment were not readily available (Goode, 2007, p42). As Holloway (2001) had found in an earlier study, students also expressed resentment at the extra time needed to 'do battle' to access the services to which they were entitled (Goode, 2007, p44) - indicating that despite the legislative imperative placed on HEIs by part IV of the DDA, the individual medical model of disability prevailed.

Jacklin et al. (2007) also employed participatory research methods to explore and make recommendations for improving the experiences of disabled students in HE. They gathered quantitative data from student records and surveyed 198 disabled students (over 40% of whom were dyslexic) and conducted in-depth interviews with 43 of the respondents. The final strand of the project involved focus group interviews with fourteen of the disabled students who had expressed an interest in participating in the research process themselves; ultimately seven were recruited as co-researchers and 'active agents of change' to identify important issues, conduct interviews and to disseminate the

findings (Jacklin et al., 2007, p14). Although primarily looking at the social experiences of students, issues pertinent to my own work were raised. The additional time spent on work by one dyslexic student meant that she had less time 'to establish herself within the new social networks of the HEI' (Jacklin et al., 2007, p45). Jacklin et al. (2007, p46) observed that, rather than the impairment itself, it was 'the context and processes of HE that proved to be disabling'. Their findings echo the observation made by Cottrell (2000, p3) regarding 'the great personal toll of higher education study upon dyslexic students in terms of stress, health, mental health, social life and family life'. Certainly the issue of time is a recurrent theme in the literature affecting not only study and the social elements of HE but has also been shown to be 'of the essence' and one of the 'main factors' influencing disabled students decisions about whether to invest time learning to use assistive technology (Draffan et al., 2009, p1) often provided as part of the DSA.

Research makes it is clear that problems with assessment are particular to the individual; whereas some students might be disadvantaged by timed written exams others might be disadvantaged by presentations or oral exams (Fuller et al., 2004a, Fuller et al., 2004b, Healey et al., 2006a). Fuller et al. (2004b, p315) argue that what is needed is 'flexibility' and 'variety' in assessment rather than treating disabled students 'as though they were a single population'; offering alternative forms of assessment is not always the solution as unless they are tailored to the individual student, they 'might be just as exclusionary as the original' (Fuller et al., 2004a, p463). Taking an alternative stance, Healey et al. (2006a, p41) suggest that inclusive assessment practice should be developed to the benefit of all students; they argue that disabled students 'fall along a continuum of learner differences' - variety and flexibility in forms of assessment should therefore be made available for *all* students.

Traditional forms of assessment generally test students' ability to demonstrate their knowledge and skills in written format within strict time-limits. This 'tradition of privileging the written word' (Baron et al., 1996, p372) may mean, however, that assessment is a disabling experience for dyslexic students as they are assessed within the mode of their impairment. For the dyslexic student it may impose 'additional and quite unrelated criteria' (Sharp and Earle, 2000, p194) from those the assessment is intended to measure. As Herrington and Hunter-Carsch observe:

> We know that the 'disability' associated with dyslexia is largely constructed from the perceptions and social practices of others. The nature of learning and assessment systems which encompass particular ideas about literacy standards and timing which have been designed without the diversity of learners in mind, produce most of the disabling effects. (Herrington and Hunter-Carsch, 2001, p129)

HEIs are required to be proactive and to anticipate the needs of disabled students; they are required to be inclusive in their practice and to put in place 'reasonable adjustments' to avoid disabled students being placed at a 'substantial disadvantage' compared with their peers (DDA, 2005, Equality Act, 2010). Although HEIs are allowed to take into account a number of factors, or in Riddell et al's (2005a, p54) terms 'get-out clauses', such as the financial resources available, the need to maintain academic and other prescribed standards and the practicability of providing adjustments. The present system of 'levelling the playing field' in examinations for dyslexic students, practised by the majority of HEIs, involves allowing additional time, use of a word-processor, and sometimes a reader and/or amanuensis and is usually referred to as 'reasonable adjustments' or 'special arrangements' (Singleton, 1999), yet many HEIs appear reluctant 'to draw students' attention to the possibility' of alternative forms of assessment (Riddell et al., 2005a, p83). Special arrangements or reasonable adjustments are a means of fitting disabled students into existing structures by providing compensatory conditions rather than changing the structures themselves (Waterfield and West, 2006b). Rather than transformation they represent assimilation or, in Fraser's (1995, p82) terms, 'affirmation' where changes are made 'without disturbing the underlying framework that generates them'.

The need to embed access, inclusion and assessment at an institutional level was central to the HEFCE funded Staff-Student Partnership for Assessment Change and Evaluation (SPACE) project undertaken by Waterfield et al. (2006, p81) who argue that the current practice of special examination arrangements is 'indicative of an assimilation culture' and reflects the medical model of disability. The SPACE project initially sought the views of over 100 disabled students using a questionnaire; quantitative analysis indicated an 83% satisfaction with the current form of special arrangements. However, a very different perspective was gained when students were interviewed, since they no longer needed to fit their responses into a prescribed framework. Semi-structured interviews and focus groups indicated that students were reluctant to criticise the present system in case help was removed; nevertheless, many felt less than satisfied with current practice and a number of concerns were raised including difficulties working against time constraints, being distracted and disturbed by other students and a desire for different modes of assessment.

Students in the SPACE study were subsequently asked to identify their top five preferred assessment modes from a list of 48. Most significantly, unseen examinations did not feature in their responses. The top five preferred modes were given as: continuous assessment; multiple choice; oral examination; coursework with discussion elements; and

portfolio. Waterfield et al. (2006, p84) define such *alternative assessments* as 'measured tools to assess core learning outcomes while minimising the impact of disability on a student's performance'. Alternative assessments are therefore a means of assessing the ability of the student rather than the effects of the disability. Nevertheless, alternative assessments remain symptomatic of an assimilation culture and, they argue, unless the full repertoire of assessment modes is embedded into course design, reflect a compensatory or 'contingent' approach (Waterfield and West, 2006a).

Rather than providing special or alternative arrangements for disabled students, an inclusive approach to assessment would extend the availability of alternative assessments to *all* students. *Inclusive assessment,* defined by Waterfield et al. (2006, p84) as 'assessment modes suitable for the diverse student population, regardless of disability, learning style or learning experience', provides flexibility, variety and choice in assessment for all students, removes distinctions between students and 'gives all students the appropriate framework of equity to meet their learning potential'.

The SPACE project identified three distinct approaches to assessment:

- **Contingent approach**: special arrangements such as extra time, amanuensis or reader are provided. This is essentially a compensatory strategy - a form of assimilation into an existing system.
- **Alternative approach**: a repertoire of different forms of assessment (such as viva voce instead of a written exam) is embedded into course design as present and future possibilities for a minority of disabled students.
- **Inclusive approach**: for example, a flexible range of assessment modes is made available to all – capable of assessing the same learning outcomes different ways. (Waterfield and West, 2006a, p6-7)

Sharp and Earle (2000, p197) also put forward a powerful case for inclusive assessment arguing that validity should be the central underlying principle 'intrinsic to the concept of assessment'. If alternative forms of assessment do, in fact, test the intended learning outcomes or the same knowledge and skills as assessments undertaken by non-disabled students, i.e. they are valid, then Sharp and Earle (2000) argue they should be made available to *all* students regardless of whether they have a disability. The aim should be to 'demonstrate the achievement of standardised goals' rather than to 'standardise the means for demonstrating those goals' (Hall and Stahl, 2006, p74). As Hanafin et al.(2007, p438) point out, 'assessment practices are created not given' - decisions about assessment mode are made at institutional, faculty or department level; traditional written

examinations represent just one of many assessment options, their significance reflects only their 'historic weight' (Hanafin et al., 2007, p443).

In a similar vein Healey et al. (2008, p1), who report findings related to learning teaching and assessment from the ESRC/TRLP funded project '*Enhancing the quality and outcomes of disabled students*' *learning in higher education*', argue that it is 'invidious to treat disabled students as a separate category' but rather they should be considered as part of a continuum, albeit sometimes facing greater barriers. Whereas occasionally 'alternative arrangements' may be necessary, particularly for students with physical impairments, Healey et al. argue (2008, p2) that 'inclusive arrangements' avoid 'singling out' disabled students and remove 'divisive distinctions between disabled and non-disabled students'.

Similar principles underpin the approach to assessment taken by the Open University in the UK (2006) and also the Universal Design for Learning (UDL), which was developed by the Centre for Applied Special Technology in the USA as a means of maximising learning opportunities for a diverse range of students (Rose and Meyer, 2002). It arose from Universal Design (UD) which is used by architects planning the built environment; it is underpinned by the philosophy of removing barriers and is defined by Race and colleagues as:

> The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialised design. (Story et al., 1998, p2)

Applying these principles to education, rather than one system for all, 'universal' indicates the use of multiple approaches to meet the diverse needs of all learners (Hall and Stahl, 2006). UDL enables learners 'to use different ways to acquire the same information' and also 'allows them to demonstrate what they know in different ways' (Grace and Gravestock, 2009, p41).

**Inclusion and academic standards**

Despite strong arguments for inclusive assessment there is resistance to change; rather than being embedded within institutional policies and procedures, provision for disabled students remains largely regarded as the responsibility of the student support services (Riddell et al., 2005a, Tinklin et al., 2004). Riddell et al. (2004, p24) in their wide-ranging examination of policy and practice in Scottish and English HEIs found that the culture of some institutions was 'particularly hostile' to disabled students - staff feared an 'erosion of standards'. Inclusion and the maintenance of high academic standards are sometimes regarded as opposing forces and questions of fairness arise. Inevitably assessment is a

'value-laden' activity and embodies 'many socio-political assumptions about what education is for' (Boud and Falchikov, 2007a, p9). At the heart of the debate lies the concept of 'graduateness' or the generic attributes expected of students. The Higher Education Quality Council (HEQC) (1996) explored the core attributes of 'graduateness' and refers to:

> Ancillary qualities that would be expected of a graduate, but which had not previously been regarded as the responsibility of higher education to teach. These ancillary qualities would be likely to include such things as the ability to write in grammatically acceptable and correctly spelt English (or Welsh), a certain level of numeracy, a range of general knowledge, a basic familiarity with information technology, and so on. (HEQC 1996, para. 14)

Many dyslexic students may well find themselves excluded by ancillary qualities which require proficiency in literacy skills; however, other attributes expected of graduates (which dyslexic students may possess in abundance) might include critical thinking, creativity, independent problem solving and teamwork (Biggs and Tang, 2007) or emotional intelligence, oral communication, listening and assimilating (Knight, 2007).

## Dyslexic students' experiences of HE

Dyslexic students form the largest single group of disabled students in HE (HESA, 2011); as such, most research studies previously discussed have included a number (in some cases a majority) of dyslexic students. In this section I discuss research that has focused exclusively on the experiences of dyslexic students rather than disabled students in general.

**Introduction and background**

Historically research into dyslexia has focused on the reading and spelling difficulties of young children and been dominated to a large extent by the medical model of disability, or, returning to Oliver's (1996) terms, the 'personal tragedy theory' with an emphasis on causation, remediation and the development of therapeutic intervention strategies (Mortimore and Crozier, 2006, Riddick et al., 1997). It is not unusual for researchers in the field of dyslexia in HE to employ largely quantitative methods and compare the performance of dyslexic students with that of their non-dyslexic peers. Such research has often been looking at the literacy or cognitive abilities of dyslexic students and relied on standardised reading, spelling and vocabulary tests (e.g. Hanley, 1997, Hatcher et al., 2002). However, as McLoughlin (2001, p121) argues, adults with dyslexia should not be

regarded as simply 'children with a learning disability grown up'; the focus on literacy skills and the individual deficit model appears largely inappropriate in HE where students have, in the main, developed strategies that have made it possible for them to meet the necessary admission criteria (Herrington, 2001, Richardson and Wydell, 2003, Mortimore and Crozier, 2006). Nevertheless, as Singleton (1999, p18) observes, if the concept of 'graduateness' proposed in 1996 by HEQC was to be accepted then many, or most, dyslexic students would find themselves precluded from HE. Indeed, Mortimore and Crozier (2006, p2) argue that 'many students embark on degree courses with severe problems in acquiring and employing a range of skills that would in the past have been regarded as essential for effective study at this level'. Certainly, the persistent difficulties experienced by dyslexic students mean that they pose a potential challenge to HEIs in terms of curriculum, teaching and assessment (Riddell et al., 2004).

**The National Working Party on Dyslexia in Higher Education**

In late 1994 (pre-dating recent anti-discrimination legislation) the National Working Party on Dyslexia in Higher Education was established following a HEFCE funded conference on Dyslexia in Higher Education, as concern had been expressed about inconsistencies in institutional practice and support. Under the chairmanship of Singleton, the Working Party (comprising 14 members) carried out a national survey of all 234 HEIs in Britain; 195 responses were received (83% response rate) and as such, it was the first and most wide-ranging survey into dyslexia in HE. Although surveys are considered to be 'the central real world strategy' (Robson, 2002, p232) enabling exploration of a wide range of issues from a broad field and allowing generalisations to be made (Cohen et al., 2000), they are not without methodological difficulties. Surveys have limited ability to provide fine detail as 'the individual detail is sacrificed to the aggregated response' (Cohen et al., 2000, p172). In an attempt to mitigate these difficulties the Working Party followed up the initial survey by seeking the views of leading dyslexia practitioners and academics in five regional consultative meetings, as well as consulting national organisations such as SKILL (the voluntary organisation for disabled students), the British Dyslexia Association and the British Psychological Society. However, an important omission was made as dyslexic students themselves were not consulted. Funded by both HEFCE and SHEFCE, the Working Party set its objectives as:

> The consideration of policy and provision for students with dyslexia in HE in the UK and the formulation of recommendations and guidelines which would assist HEIs in meeting the needs of such students. (Singleton, 1999, p12)

The Working Party found considerable variability in practice across HEIs: dyslexia was often conceptualised as an impairment resting with the individual rather than being an

institutional problem with individuals expected to adapt to current practice and procedures. Drawing on Bourdieu and Passeron (1977), this might be viewed as 'institutional habitus' within HEIs where taken-for-granted, un-noticed, deeply embedded priorities, values and attitudes inform practice.

Comments from dyslexia tutors who contributed to the national survey indicated that dyslexic students often did not anticipate the difficulties they faced in HE (Singleton, 1999). Problems with working memory, writing speed and insecurity with spelling, combined with an inability to listen, identify key points and write simultaneously meant that dyslexic students found note-taking in lectures difficult and had inadequate material from which to revise. These findings echo later research by Fuller and Healey and colleagues (Fuller and Healey, 2005, Fuller et al., 2004b, Fuller et al., 2004a) and also research carried out in the USA by Hughes and Suritsky (1994). They have important consequences for dyslexic students as a close link has been found between the amount and quality of information recorded in students' lecture notes and their achievements in examinations (Baker and Lombardi, 1985, Kiewra and Fletcher, 1984). Not only were lecture notes often found to be insufficient but a wide range of other problems associated with examinations were experienced including: organisational difficulties, such as arriving at the correct room and place on time and managing time elements within the examination itself as well as the organisation of ideas; reading problems, such as misreading or misinterpreting instructions and coping with multiple choice questions which require rapid reading and holding information in working memory whilst evaluating possible answers; writing and spelling difficulties which meant that students were focusing on the process of writing (spelling, legibility and punctuation) rather than on the meaning or idea that was being put across (Singleton, 1999, p142). Written examinations were described as 'particularly stressful' as dyslexic students 'usually have few methods which are appropriate for this situation' (Singleton, 1999, p38). The Working Party made the following observations about dyslexic students:

> They find rote-learning ineffective and so need quite different ways of revising. Their spontaneous recall is usually very limited, and, so however hard they have prepared, they may feel that they know little. Their speed of writing may be much slower than that of other students and they may be acutely aware of their problems in spelling, grammar and vocabulary. In the examination situation itself, panic can quickly set in and may immobilise them.(Singleton, 1999, p38)

Examinations taken in the form of written assessments require dyslexic students to operate in a medium and to 'demonstrate their talents' in a medium '*which impinges directly on the core of their disability'* (Singleton, 1999, p138, original emphasis).

Providing special examination arrangements which were considered to 'level the playing field' for dyslexic students was often found to be ineffective; dyslexic students described it as 'embarrassing to be singled out or stigmatised in this way' (Singleton, 1999, p38).

The Working Party made 101 recommendations under eight key areas, including examinations and assessment. Recommendations of particular relevance to my work included:

- When courses or modules are being planned, consideration should be given to the relative importance of written language, and whether forms of assessment other than written examinations would be appropriate.
- Academic staff should endeavour to write examination questions, essay titles and instructions clearly and directly, being mindful of the difficulties that some students with dyslexia may experience in reading material.
- As far as possible, students with dyslexia should be allowed to find and use a mode of assessment in which they are competent and confident, and which takes into account their individual differences. (Singleton, 1999, p153)

The Working Party drew up a number of proposals for good assessment practice. Of particular note was the premise that analysing course aims and objectives is central to identifying the most appropriate means of assessing students. Indeed, the Working Party pointed out that aligning course aims and objectives with assessment practice is relevant for the assessment of *all* students; it was argued that the conventional mode of assessment in the form of a written examination 'continues to be used *only because* it is traditional and also convenient' (Singleton, 1999, p144, original emphasis). Even before implementation of the DDA part IV, HEIs were beginning to explore a variety of assessment methods as it became 'increasingly difficult to rely exclusively, or even primarily, on additional time to compensate for the disabilities of students with dyslexia' (Singleton, 1999, p140). Despite its broad scope, the findings of the Working Party are diminished by the omission of the views of dyslexic students whose voices were missing from this important study.

## Research including the voices of dyslexic students

Unlike the Working Party, other researchers such as Riddick et al. (2003), Pollak (2005) and Mortimore and Crozier (2006) have sought the views of dyslexic students. The first two interview-based studies were small-scale whereas the latter questionnaire-based study involved 62 dyslexic students across 17 HEIs and compared responses of dyslexic students with a matched group of 74 students not identified as having dyslexia. However,

the first published UK study including the voices of dyslexic students was undertaken by Riddick et al. (1997). Interviews were only one element of this small-scale project comparing the writing skills of 16 dyslexic students with their non-dyslexic peers; they did, nevertheless, provide a compelling account of the experience of dyslexia and, although students were not asked direct questions about examinations, responses to other questions sometimes elicited information relevant to examinations - and hence to my own study. Dyslexic students reported excelling at 'oral presentations' and 'class discussions' - areas that were 'not assessed, of course' (Peter, quoted in Riddick et al., 1997, p70); in contrast examinations were 'where I fail … because of the set time, forgetting things I know' (Sean, quoted in Riddick et al., 1997, p109). Although Riddick et al. (1997, p183) recommended that HEIs should provide training for lecturers in 'the nature and diversity of the problems that students will encounter and the role they must take in assisting these students in accessing their particular subject', in the main the recommended 'mandatory policies' for HEIs reflected the individual medical model of disability prevalent at the time: policies tended to be directed at helping students overcome barriers rather than to the removal of barriers.

Similarly over one-third of the students interviewed by Pollak (2005, p97) complained about the style of learning and teaching in place at university; there was a general acceptance that the 'model of academic procedure' was 'a given to which they had to aspire'. Although Pollak (2005) was particularly interested in the social and emotional dimensions of dyslexia, interviews with students confirmed earlier research indicating marked problems with note-taking in lectures, when information was given too quickly and material removed from white-boards too hastily, leading to dyslexic students having inadequate notes for revision; whereas some students found recording lectures helpful as a means of overcoming this, others did not. Several students used visual or kinaesthetic strategies for essay planning and time-management and a number relied on peers to proofread work (Pollak, 2005). Revision strategies mentioned by students included memorising diagrams and learning anatomy by dismantling a three-dimensional model whilst discussing the process with a friend (Pollak, 2005, p96). A dislike of examinations was apparent including running out of time because of slow spelling and reading, grammar and spelling declining under pressure and the belief that non-dyslexic students were at 'an unfair advantage' because developing examination techniques was easier for them (Pollak, 2005, p97).

As found by other researchers, such as Fuller et al. (2004b), Fuller and Healey (2005) and later Waterfield and West (2006a), Pollak (2005, p155) observed that there appeared to be no consensus about the preferred format of assessment. Therefore, to 'ensure genuine inclusivity', rather than 'treating dyslexia as a special need requiring special provision' he

suggested that lecturers may need to revisit the learning outcomes of courses and the format of assessment - a similar observation to that made by in the report of the National Working Party on Dyslexia in HE (Singleton, 1999).

Prior to the study by Riddick et al. (Riddick et al., 1997), two small-scale studies had been carried out in the USA by Hughes (1991) and Hughes and Suritsky (1994). The former employed structured interviews to identify study approaches used by dyslexic students when preparing for tests and also to identify specific areas of difficulty experienced by dyslexic students. Open-ended questions and a Likert scale indicated that the largest proportion of students participating in the study (42%) considered 'memorising important material' followed by 'allotting time to study' (38%) as the main areas of difficulty; few students were aware of, or used, effective strategies. However, the study was limited by the use of a Likert scale, which required responses to be given within prescribed categories. The second study explored dyslexic students' skills in note-taking during lectures and found that their notes 'were not as complete' as those of non-dyslexic students (Hughes and Suritsky, 1994, p22). As lecture notes are considered to be the 'currency' for preparing for assessments (Hanafin et al., 2007, p440), and have been shown to be a crucial factor in examination performance (Kiewra and Fletcher, 1984, Baker and Lombardi, 1985) this has important implications for dyslexic students and their revision strategies.

Mortimore and Crozier (2006) found, in their wide-ranging survey that note taking, organising essays and expressing ideas in writing, closely followed by reading speed, spelling, handwriting and remembering facts, were the difficulties most frequently identified by dyslexic participants. All these skills are pertinent to preparing for and sitting examinations and were found to be substantially more difficult for dyslexic students than for their non-dyslexic peers. Dyslexic students expressed a need for copies of lecture notes and the ability to record lectures; however, rather than lack of availability of resources and support, Mortimore and Crozier (2006) found that it was often lack of awareness of what was available and sometimes the stigma of dyslexia which affected take-up of support. Mortimore and Crozier (2006, p237) compared the responses of 62 dyslexic students with 74 non-dyslexic students, reasoning that 'since HE makes demands on all students', dyslexic students' difficulties 'should be evaluated within this context'. To overcome some of the methodological disadvantages inherent in surveys, particularly for dyslexic students, questionnaires were completed individually in the presence of the researchers, thereby allowing clarification and expansion of responses. Notwithstanding this, Mortimore and Crozier (2006) acknowledge the limitations of the study, which despite including students from 17 different HEIs, restricted the research to male students only. Mortimore and Crozier (2006, p238) argue that as survey data were

collected during research into the effect of cognitive style on recall of simulated lecture material, 'adding gender as a factor in that study would have produced design and sample problems'.

**The social and emotional consequences of dyslexia**

In outlining previous research into dyslexia in HE, in the main, I have described the cognitive and educational aspects of the findings. As my own work concerned not only the revision strategies used by dyslexic students but also the influences on the development of those strategies and students' feelings about examinations, I now explore findings from the small number of published studies carried out in the UK which have included or focused on the affective elements of dyslexia and its impact on the individual.

With a few notable exceptions (Riddick et al., 1999, Riddick, 2003, Pollak, 2005, Griffin and Pollak, 2009), the majority of research addressing the socio-emotional impact of dyslexia has concerned children (Burden, 2005, Osmond, 1995). Research involving adults, includes interviews exploring the 'learner histories' of six postgraduates and academics (Collinson and Penketh, 2010), a study of twenty students attending a Further Education college (Armstrong and Humphrey, 2009), focus group interviews with seven adult learners attending evening classes (Dale and Taylor, 2001) and a questionnaire survey of 47 adults attending Winchester Dyslexia Institute (Hughes and Dawson, 1995). However, these have often not involved students presently studying in HE. Nevertheless, despite the sparsity of research, a consistent theme which runs through most accounts concerns the adverse effects of early negative educational experiences (e.g. Edwards, 1994, Osmond, 1995, Riddick, 1996) and evidence that the impact of these experiences is carried into adulthood (Hughes and Dawson, 1995, McKissock, 2001, e.g. Collinson and Penketh, 2010). Edwards (1994, p1) refers to 'the deep emotional battle scars' and the cumulative effect of negative educational experiences and repeated failure suffered by eight dyslexic teenage boys who were 'outwardly secure, confident young men' and who had 'all except one been pushed to extremes of misery during primary school … all of them had been teased, humiliated and insulted, by staff, children or both … with evidence of truancy, total demoralisation, psychosomatic pain and isolation'. Similarly, Hughes and Dawson (1995, p181) found that many of the dyslexic adults in their survey recalled their schooldays as 'a series of unhappy and distressing experiences'; participants believed that their teachers regarded them as less intelligent than they were and many gave up trying. The long-standing impact of disabling educational experiences, where academic failure was instinctively interpreted as personal failure, was also confirmed by Dale and Taylor's (2001, p1003) focus group study of seven mature students attending a 'Learning for Life and Work' study skills course; students believed they were 'thick' or 'stupid',

when, as one commented, 'spelling was used as a thermometer for intelligence'. For many of the participants self-belief had developed in adulthood through success at work. Dale and Taylor (2001) found that returning to education in a supportive environment, where current understandings about dyslexia were explained, allowed the participants to reframe their perceptions of themselves as learners. Although their study was limited, in that all participants were mature students returning to education, it provides valuable insight into the impact of negative early educational experiences on the students' perceptions of themselves as learners.

In comparison with Hughes and Dawson (1995) and Dale and Taylor (2001), whose research involved only participants who had not progressed to HE, Collinson and Penketh (2010) sought the views of dyslexic postgraduates and academics. Participants were not, however, typical of dyslexic students in HE and, as Collinson and Penketh (2010, p8) recognise, could be described as 'a small social subgroup'; all had withdrawn from formal compulsory education at the earliest opportunity, all had re-entered later as mature students via non-traditional routes such as Access courses and all had subsequently achieved academic qualifications and chosen to continue to study at postgraduate level. In addition, Collinson and Penketh (2010, p9) recognised that the research was 'heavily influenced by the personal experiences' of the researcher who took the role of both researcher and participant. Furthermore, all but one of the participants were members of a dyslexia advocacy group and as Collinson and Penketh (2010, p11) acknowledge 'taking part in the research could therefore be described as part of this ongoing act of resistance via participation rather than the work of benevolent researchers'. Nevertheless, the study had strengths: Collinson and Penketh's (2010) narrative approach gave participants an opportunity to talk about their own subjective experiences and as notes and narratives from the interviews were sent back to participants to edit and amend, they were able to take an active part in the construction of the final narratives. Despite the very different profiles of the participants from other research participants, remarkably similar disabling encounters were described: early educational experiences were recalled as 'negative or humiliating' - literacy was equated with academic ability leading to low expectations and the message that 'learning is not for you' (Collinson and Penketh, 2010, p12, p14). These findings are not unexpected given that proficiency with the written word is the dominant value system operating in schools and 'the association between bad spelling and stupidity is so strong that it is almost taken for granted' (Ridsdale, 2004, p249). Collinson and Penketh (2010, p15) argue that 'resistance through persistence' could be regarded as a defining characteristic of the participants as 'their persistence, tenacity and resilience appear to have been defining factors in enabling them to continue with formal education'. Some participants expressed the belief that low expectations in compulsory education had acted as an incentive to pursue academic success; they demonstrated 'a refusal to

accept the identity of one who could not and would not learn effectively' - recognition of formal qualifications and graduating from HE was regarded as proof that they were 'not stupid at all' and a way of 'laying claim to an elite learner identity that others had suggested would remain inaccessible' (Collinson and Penketh, 2010, p15).

Research into the social and emotional consequences of dyslexia has often made connections between early experiences and the individual's self-esteem and self-concept (Riddick et al., 1999, Humphrey, 2002, Burden, 2005). Although these terms are sometimes used interchangeably, it is generally accepted that self-concept refers to how individuals perceive themselves (Burns, 1982), whereas self-esteem refers to individuals' feelings about those perceptions - their 'personal judgement of worthiness' (Coopersmith, 1967, p5). A close association has been found between self-concept and academic achievement although the direction of effect is unclear with many researchers favouring an interactional mutually self-supporting two-way process (Marsh and Craven, 2006, McInerney et al., 2012).

Self-concept is believed to develop through experiences within a social context (Coopersmith, 1967, Burns, 1982, Humphrey, 2002). Psychological literature suggests it is constantly evolving and continually shaped and refined by interactions with others and their verbal and non-verbal appraisals (Stets and Harrod, 2004, Pollard, 1985) and is influenced, most particularly, by reinforcements, evaluations and feedback from significant others and by the individual's interpretation of those interactions (Shavelson and Bolus, 1982, Burns, 1982). Cooley (1902) described this as the 'looking glass' self where significant others act as a social mirror reflecting opinions which then become assimilated into an individual's sense of self. The ways in which individuals are perceived by others and the responses they receive from important people in their lives are paramount to how they come to view themselves and what they believe they can do (Burns, 1982); self can be seen as a performance: individuals' interpretation of themselves in the light of the perceptions of others (Goffman, 1959). There is also broad consensus in the literature that self-concept is best understood as multi-dimensional and hierarchical (Burden, 2005, Riddick, 2012), often represented by the pyramidical model proposed by Shavelson and Bolus (1982) where global self-concept is divided into two domains: academic and non-academic. These domains are themselves subdivided into different areas, as illustrated in Figure 2.1
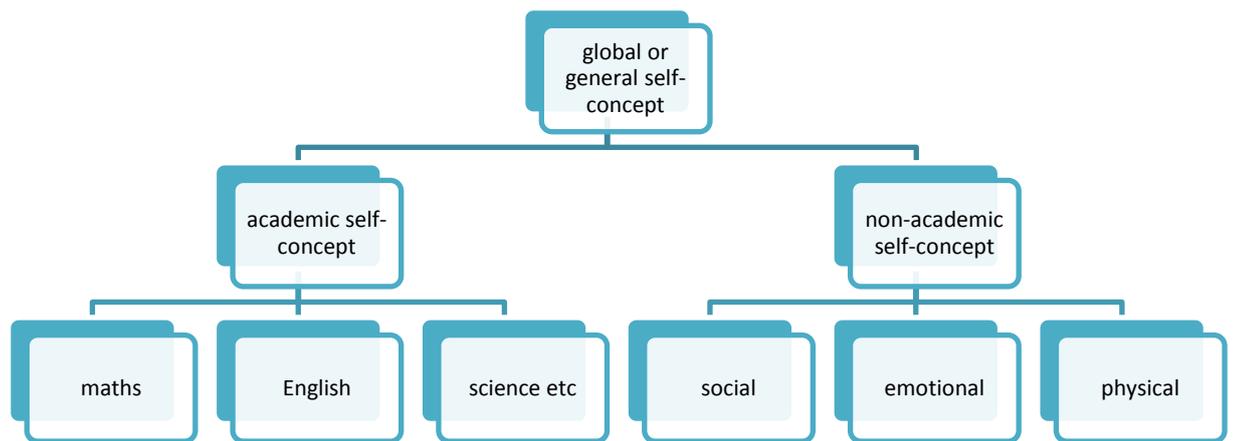
**Figure 2.1 A representation of the hierarchical organisation of self-concept from Shavelson and Bolus (1982, p3)**

Self-esteem appears to rest on perceived success in domains the individual deems important. James (1890/1950, p310, original emphasis) argues that 'our self-feeling in this world depends entirely on what we *back* ourselves to be and do'. However, a dyslexic individual's sense of self develops within a public and competitive educational environment where the dominant discourse defines academic ability in terms of literacy; it is inevitably affected by what is valued and prized within the culture and environment (Burden, 2008, Kozulin et al., 2003b, Burns, 1982). Since the vast majority of the school curriculum is literacy-based then it is unlikely that the effects of dyslexia will be confined to only a narrow area and it is probable that 'low "literacy" self-esteem' will have an impact on other areas of academic self-esteem (Ridsdale, 2004, p252). Indeed, Cooper (2009, p66-67), a dyslexic academic, speaks from personal experience of 'the negative imprint on lives of social interactions and expectations' and the impact of a world 'where the early learning of literacy, and good personal organisation and working memory is mistakenly used as a marker of "intelligence"'. Certainly, the literacy-based hegemony and implicit assumption that academic scholarship is incompatible with poor spelling is likely to have a corrosive effect on the academic self-concept and self-esteem of a dyslexic individual.

The research literature indicates that from the age of eight the statements children make about themselves become increasingly comparative as they overtly compare their performance with that of their peers (Gurney, 1988) and respond to powerful messages (both implicit and explicit) given by teachers, parents and other important people in their lives (Hamilton, 2002, Burns, 1982). Research indicates that not only do dyslexic children have lower self-esteem than non-dyslexic children (Burden, 2005, Humphrey, 2002) but this is also the case for dyslexic college students (Armstrong and Humphrey, 2009) and

university students (Riddick et al., 1999). Riddick et al.(1999) found that 16 dyslexic university students displayed significantly lower self-esteem on the Culture Free Self-Esteem Inventory (Battle, 1992) and higher levels of anxiety on the State-Trait Anxiety Inventory (Speilberger et al., 1983) than their matched non-dyslexic peers. Dyslexic students rated themselves worse academically than their peers at school and also at university and considered that their written work was not an accurate reflection of their true ability (Riddick et al., 1999). More recent research (Carroll and Iles, 2006) also supports the association between dyslexia and elevated levels of anxiety experienced by dyslexic students when faced by a situation demanding literacy accuracy. Drawing on the work of Meadows and Merrill (1989), Carroll and Iles (2006, p658) argue that an internal locus of control might protect dyslexic students 'against stress and anxiety, dependent on perception of controllability of events'.

**Locus of control, attribution theory and learned helplessness**

Attribution theory (Weiner, 1974) is concerned with the causes individuals attribute to their successes and failures in life - their explanations for events. Success may be attributed to internal factors within the individual's control (internal locus of control) or external factors outside the individual's control (external locus of control); performance may be perceived as stable and unchangeable or subject to change and may be deemed global or specific to a particular task. Attributions are important because actions are considered to be influenced by 'what you expect the behaviour to result in' (Seligman, 1991, p24) or by feelings of self-efficacy (Bandura et al., 1999), an individual's sense of agency or competence (Burden, 2005). Self-efficacy affects how long individuals 'will persevere in the face of obstacles and failures, their resilience to adversity … and the level of accomplishments they realise' (Bandura, 1997, p3). Self-efficacy beliefs have also been shown to be strongly influenced by comparisons with others (Bandura and Jourden, 1991, Schunk, 1989); this has been found to be especially true in academic contexts where performance is subject to evaluative comparisons (Zimmerman, 1995).

Applying self-efficacy theory to dyslexic individuals, it follows that those who struggle with literacy skills will lack confidence and avoid tasks requiring those skills, will lack resilience and be inclined to expend less effort and be more vulnerable to stress and anxiety in academic situations. Stanovich (1986, p364) refers to this as the 'Matthew effect'[1] as early difficulties with acquiring literacy are likely to have a cumulative effect making it progressively more difficult for dyslexic individuals to catch up with their non-dyslexic peers. Repeated failure may result in learned helplessness (Abramson et al.,

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[1] From Matthew 13:12 To all those who have, more will be given, and they will have abundance; but from those who have nothing even what they have will be taken away.  The New Oxford Annotated Bible.

1978), a concept frequently associated with dyslexia (Humphrey and Mullins, 2002, Butkowsky and Willows, 1980, Bryan, 1986). Learned helplessness is described as 'the giving up reaction, the quitting response that follows from the belief that whatever you do doesn't matter' because action and outcome are perceived as independent (Seligman, 1991, p15). It is characterised by 'low confidence and self-esteem, impoverished performance, diminished expectation, lowered motivation, lack of engagement, weak persistence and passivity' (Burden and Burdett, 2005, p101). Students with dyslexia may attribute their difficulties to internal factors such as low intelligence and to unchangeable or irredeemable causes. They may attribute their successes to external factors beyond their personal control such as good teaching or ease of the task (Humphrey and Mullins, 2002, Bryan, 1986). Self-efficacy beliefs are considered to influence not only choice of activity, effort expended and persistence but, most importantly in the context of my own research, these mediating variables are thought to play an especially crucial role when the individual faces obstacles or difficulties (Bandura, 1977, Schunk, 1984). Protective factors include early identification and the support of teachers, parents and friends (Riddick,(2012, p44).

It is clear that many dyslexic individuals perceive themselves as 'different' from their peers from a young age (Burden, 2005, Pollak, 2005, Ingesson, 2007) and, although the literature reveals some diversity of views, it does appear that for many a 'diagnostic assessment' of dyslexia 'has the potential to be both empowering and enabling' (Grant, 2009, p33) and may lead to an increase in self-esteem (McNulty, 2003). It may well be that providing an explanation and recognition of dyslexic difficulties offers an opportunity for a positive reframing of past negative educational experiences (Gerber et al., 1996, Gwernan-Jones, 2012b).

**Reframing and the dyslexia 'label'**

Contrary to the negative view of labelling (Becker, 1963) and its associations with stigma (Goffman, 1968), Riddick (2000) suggests that a formal 'diagnosis' of dyslexia may be a positive step educationally and psychologically. Drawing on previous studies (Riddick, 1996, Riddick et al., 1997), Riddick (2000, p659) considers that 'for many individuals with dyslexia, a label that adequately explains their difficulties appears to be an important step in this [reframing] process'. While finding the 'label' beneficial at a private level, as it helped them understand their difficulties, many participants expressed some concern at using the term publicly and feared ridicule. Interviews with eight dyslexic teachers and five trainee teachers indicated that they were very selective about the people to whom they had disclosed their dyslexia and expressed anxiety about being 'found out' (Riddick, 2003, p389). Similarly, Riddell et al. (2005a, p153) consider that dyslexic students

'continue to be deeply disadvantaged by the negative social connotations which continue to be associated with disability', although to obtain the DSA and access to the support they require, 'they actively seek diagnosis, but at the same time resent and reject the stigma associated with the category of disability'. Likewise, Pollak's (2005, p111) interviews with 33 dyslexic students in HE indicates that dyslexia is still viewed in medical terms by many students who see writing difficulties as 'problems within themselves and poor spelling as a personal defect'.

Armstrong and Humphrey (2009) have developed a resistance-accommodation continuum as a means of explaining the psycho-social processes involved in the integration of dyslexia into individuals' notion of self; accommodation is characterised by the ability to integrate a positive notion of dyslexia into the sense of self whereas resistance is characterised by an unwillingness or inability to do so. Drawing on research which indicates that identity tends to become increasingly fixed in early adulthood (Jacobs et al., 2003, Harter, 1990), Armstrong and Humphrey (2009) argue that students assessed at a young age appear more comfortable applying the term dyslexia to themselves, whereas as students grow older it becomes progressively more difficult psychologically to accommodate dyslexia into a sense of self in a positive manner. Interestingly from the perspective of my own work, Armstrong and Humphrey (2009) suggest that the resistance-accommodation model may be used to make predictions about future outcomes as students who make a positive accommodation of dyslexia were found to be more likely to be successful in their studies.

## Assessment and examinations

The main focus of my research is dyslexic students' experiences of assessment in the form of traditional timed examinations; this is often referred to as *summative* assessment which generally takes place at the end of teaching as a means of grading students, whereas *formative* assessment takes place during teaching and generally integrates feedback within teaching to assist the learning process (Heywood, 2000, Dochy et al., 2007). In this section I discuss the main theories underpinning student learning and explore what is known about the impact of assessment on student behaviour and learning. In doing so I am mindful that most of the research into student learning has taken place without reference to dyslexic students; nevertheless, it contributes some of the contextual backdrop to my own work. I begin by looking at the link between learning, understanding and revising.

**Learning, understanding and revising**

Although the terms are often used synonymously learning and revising are not the same. Until the late 1960s research into learning was largely dominated by behavioural theories (Watson, 1913), based on animal experiments where food rewards were given to pigeons and rats to encourage desired behaviour. Learning was conceived as a quantitative increase in knowledge (Skinner, 1938). However, it is now generally accepted that learning is about conceptual change; it involves not only the acquisition of knowledge but also 'changes the way we see the world' (Biggs and Tang, 2011, p23). The key defining feature of learning is that the learner is changed in the process (Kozulin et al., 2003a, p6). Cognitive theories emphasise the role of students' thoughts, the transformation of cognitive structures and the importance of memory and information processing in the learning process (Schunk, 2012). However, although there is a consensus amongst cognitive theorists about the importance of mental processes in learning, there is less agreement about which processes are most important: social cognitive theories emphasise the role of the social environment, goal setting and self-efficacy; information processing theories draw on Gestalt psychology and emphasise the role of organisation and the way information is processed, transformed and stored; constructivism emphasises the way knowledge is constructed or formed by individuals themselves (Schunk, 2012). Constructivism is consistent with my philosophical stance. It is congruent with Vygotsky's (1978) sociocultural theory with its emphasis on social interaction as a key mediating factor in learning. It involves the learner actively constructing knowledge and understanding by drawing on their own pre-existing knowledge frameworks, or schemata, to interpret principles and concepts, thus extending and transforming those schemata (Fry et al., 2009, Biggs and Tang, 2011). Importantly, the learner is actively involved in constructing knowledge by his or her own activities (Biggs and Tang, 2011).

Revising does not necessarily equate with meaningful learning; from the student's perspective, the characteristic which differentiates revising from learning is that of purpose: to pass or achieve a good grade in an examination. Revision may involve rote learning of selected content or memorising a list of facts in order to reproduce them accurately rather than understand (Biggs and Tang, 2007). Ramsden (2003, p37) argues that in order to 'survive the process of assessment' many students 'appear to be learning an imitation of at least some of the disciplines they are studying, a counterfeit amalgam of terminology, algorithms, unrelated facts, right answers and manipulative skills'. It is possible for facts to be accumulated (memorised), or knowledge added without transformation taking place; learning which involves understanding usually happens only when schemata are changed or transformed - without transformation facts are unlikely to be retained (Fry et al., 2009) - they have been memorised rather than understood.

Research by Perry (1970) at Harvard, later confirmed by Saljo (1979) and more recently by Marton et al. (1993) in Sweden, Entwistle (2001) in Scotland and by Morgan and Beaty (1997) in their longitudinal study of Open University students, indicates that students' conceptions of learning vary in a number of qualitatively different ways. Perry's (1970) longitudinal study indicated that students develop progressively in terms of their way of thinking as they move through HE. Perry (1970) identified nine stages along a spectrum of development ranging from the absolutist view of knowledge as a quantitative entity through truth as being uncertain or provisional to the final stage where students are able to commit themselves to a particular interpretation whilst also being aware of alternative interpretations of truth or reality. Similarly, Saljo (1979, p449), who interviewed 90 students, argued that students' beliefs about learning change as a function of experience. He suggested that whereas experienced learners make a distinction between learning and understanding: (understanding involves 'the abstraction of meaning'), less experienced learners perceive learning as a reproduction of information (knowledge is equated with 'discrete units of information' and learning involves 'transfer of these discrete units into the head of the learner') (Saljo, 1979, p446). Certainly it appears that for some students learning is memorising or 'learning the discourse' (Marton, 1976, p35) by memorising, or rote learning and transferring information from short-term memory to long-term memory without any interpretation, change or transformation taking place. As Gibbs observes:

> Assessment systems dominate what students are orientated towards in their learning. Even where lecturers say that they want students to be creative and thoughtful, students often recognise that what is really necessary, or at least sufficient, is to memorise. (Gibbs, 1992, p10)

I am mindful, however, that not only has this research often omitted reference to dyslexic or disabled students but it has also been conducted within Western culture; findings are not necessarily universally transferable. A different picture has emerged with students educated within Chinese culture who appear to be 'passive rote learners' yet at the same time 'show high levels of understanding' (Watkins and Biggs, 2001, p3). This paradox of a surface approach to learning (discussed later) leading to understanding has been explored in a longitudinal study of 20 students attending 'an elite university in mainland China' (Marton et al., 2005, p291) and in-depth interviews with 17 Chinese teacher educators (Marton et al., 1996). Findings indicate that memorising and understanding are not perceived as separate by Chinese learners but rather as 'interlocking processes' (Watkins and Biggs, 2001, p6). Marton et al. (2005) interviewed Chinese students at the start of their course and again 18 months later. Whereas at the start most participants differentiated between memorising and understanding, describing them as sequential

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(either memorising followed by understanding or understanding followed by memorising), at the second interviews most participants described memorising and understanding occurring simultaneously: they were 'two sides of the same coin' (Marton et al., 2005, p292). There is a broad consensus that the most plausible explanation for this apparent cultural difference lies in the participants' early learning environment (Kember, 1996). Large class sizes where 'drilling for external examinations is the norm' (Watkins and Biggs, 2001, p3), the Confucian emphasis on a systematic regulated approach to study and early experiences of learning Chinese characters through repetitive copying mean that memorisation through constant repetition becomes a deeply ingrained approach (Kember, 1996).

**Approaches to learning**

Since the early 1970s research in Sweden (Marton and Saljo, 1976), Australia (Biggs, 1979), Scotland (Miller and Parlett, 1974) and the USA (Snyder, 1973) has indicated that it is assessment rather than teaching that exerts the greatest influence on students' behaviour. Although using very different methodologies (Biggs (1976; 1978) constructed a self-report questionnaire, the study process questionnaire (SPQ) and therefore limited responses to a framework whereas Marton and Saljo (1976) gave participants a comprehension task before interviewing them about their strategies) a key theme emerging from all the studies indicates that students change their learning approach according to their perception of the assessment task. Students are not passive recipients of assessment (Ecclestone, 2007); inevitably it has an impact - sometimes deleterious - on their behaviour and learning (Rust, 2002, Biggs and Tang, 2011).

Later research (Prosser and Trigwell, 1999, e.g. Biggs and Tang, 2007, Norton, 2009, Biggs and Tang, 2011) has confirmed these important findings: not only do students possess qualitatively distinct conceptions of what learning is about but they also show different approaches to learning tasks resulting in different outcomes; it is the student's perception of the situation that is considered to be 'the critical mediating variable' - the same student can use different approaches in different situations (Ramsden, 1987, p278). To maximise marks students may adopt a 'strategic' (Entwistle, 2001, Entwistle, 1995) or 'achieving' (Biggs, 1987) approach to learning, combining a 'deep' understanding approach with a 'surface' memorising approach with the objective of achieving the highest grade possible. A surface approach includes use of strategies such as learning only selected content, rote learning and memorising or verbatim recall (Biggs and Tang, 2007); students possess only extrinsic motivation governed by external requirements (Tang, 1994), they memorise facts and procedures routinely and treat the content of the course as unrelated pieces of information (Entwistle, 2001). Students who conceive of learning as

a quantitative increase in knowledge are those most likely to take a surface approach (Marton and Saljo, 1997, p56). The surface approach is thought to be achieved through 'superficial levels of cognitive processing' without transformation of the underlying schemata (Fry et al., 2009, p11). In contrast, students adopting a deep approach will attempt to gain a thorough understanding of the 'big picture' as well as learning the details (Biggs and Tang, 2007). They will possess intrinsic motivation and interest in the task (Tang, 1994), relate ideas to previous knowledge and their own experience (Biggs, 1987), look for underlying principles and take an active interest in the course content (Entwistle, 2001); and learn facts within the context of meaning (Fry et al., 2009).

Assessment is thus the 'hidden curriculum' (Snyder, 1973), providing 'an agenda more persuasive than a syllabus or course outline', defining what is important and signalling what should be learnt (Boud, 2007, p21), leading to both intended and unintended consequences (Biggs and Tang, 2011). 'Consequential validity' (Dochy et al., 2007, p90) is considered to be high when assessment practice promotes the intended ways of learning - a positive 'backwash effect' (Elton, 1987, p92) - and low when it promotes unintended consequences - a negative backwash effect (Knight, 1995).

Research has shown that some students are not only strategic in their approach to learning but also strategic in their preparation for assessment. Miller and Parlett (1974), in a small-scale, descriptive qualitative study explored how students prepared for and reacted to examinations. Although the study was restricted to only three departments in one university (Law, History and Physics), the researchers were interested in individuals' own experiences of assessment; semi-structured interviews allowed students to talk freely, to enlarge on topics introduced by the researchers and to introduce topics themselves. Miller and Parlett (1974, p51) referred to students 'playing the system' and drew up a continuum categorising students as cue-conscious, cue-seekers or cue-deaf. The cue-conscious students were perceptive, noted which aspects of the course staff favoured and picked up hints about examination topics. Cue-seekers behaved more actively; they sought information about examinations from members of staff and found out which topics particularly interested staff. In contrast, cue-deaf students were neither perceptive nor active in seeking out examination information and relied on hard work alone.

A key feature of the strategic approach is that it involves organisation both in terms of study method (deep or surface) and time management; the approach the student uses appears to depend upon their perception of the assessment requirements – the need to demonstrate understanding or merely the ability to recall facts (Entwistle, 1995). Crucially for my own work, findings presuppose that students are able to choose an approach -

surface, deep or strategic - at will. Although the consequences of assessment practice are likely to be greater for disabled students (Hanafin et al., 2007, Shevlin et al., 2004), most of the research into student learning and assessment has been carried out without reference to disabled or dyslexic students.

**Modes of assessment in higher education**

Historically examinations have been a means of selection, discipline and knowledge control (Kvale, 2007a). However, these functions are not only incompatible with a contemporary knowledge-based economy, where learning is no longer restricted to an elite, but they also run counter to fostering a life-long motivation for learning and to the use of assessment to promote learning (Kvale, 2007a, Boud and Falchikov, 2007a). Requirements placed on HEIs by the QAA Quality Code (2012) alongside increasing diversity in the student population and initiatives such as the UK National Student Survey, which every year since its inception in 2005 has confirmed low student satisfaction with assessment, have ensured that assessment is currently in the spotlight. Increasingly HEIs are paying attention to the role and purpose of assessment (Boud and Falchikov, 2007a, Gibbs and Simpson, 2004), the link between learning, assessment and teaching (Dochy et al., 2007) and the use of a range of innovative assessment practices alongside traditional exams.

Examinations define what is to be included in or excluded from the curriculum and send important messages to students about what should be learnt and how it should be learnt (Boud, 1995, Race, 2005, Ramsden, 2003) as well as framing their view of higher education and influencing how they see themselves as learners (Boud and Falchikov, 2007a). Examinations are predicated on the assumption that 'the links between subject content and assessment technique are unproblematic' (Boud, 1995, p41). However, traditional examinations tend to assess declarative knowledge which involves 'knowing about things' (content knowledge), whereas functioning knowledge involves active engagement by the student - it is 'knowledge that informs action ... performance is underpinned by understanding' (Biggs and Tang, 2011, p81-82). Many argue that traditional examinations are not valid measures of the intended learning outcomes (e.g. Race, 1999, Biggs and Tang, 2011), they are ineffective in supporting students' learning (e.g. Gibbs and Simpson, 2004, Boud and Falchikov, 2007a, Rust, 2007) and they are poor measures of practical skills (Brown, 1999) or transferable skills that are expected of graduates (Brown et al., 1995, Elton, 2004).

The QAA Quality Code (2010a, Chapter B6, indicator 3) recommends that 'institutions encourage assessment practice that promotes effective learning' and suggests the use of

a range of assessment modes including extended assignments, peer assessed activities, self-reflective accounts, self-assessments and oral presentations which include students themselves in the evaluation process. The recommendations made by the QAA highlight one of the most significant shifts in the current rethink of assessment. Whereas traditional examinations have tended to place control of the assessment with the examiners, peer and self-assessments require students themselves to be actively engaged in the assessment process (Brew, 1999, Jordan, 1999, Kvale, 2007a).

Research indicates that self-assessment is important in encouraging the development of skills for life-long learning (Taras, 2002, Tan, 2007), a key theme of the Dearing Report (1997, introduction), which refers to 'a learning society' and the recommendation that 'over the next 20 years, the United Kingdom must create a society committed to learning throughout life'. Self-assessment, peer assessment and collaborative assessment have been found to play a crucial role in promoting learning (Falchikov, 2007) by encouraging 'student ownership' (Irwin and Hepplestone, 2012, p773) and stimulating student engagement with the assessment task (McDowell and Sambell, 1999) as well as developing students' abilities to monitor their learning (Sambell et al., 2006) and helping them identify their own learning needs (Bryan, 2006). Peer assessment involves learning as a collaborative social activity and is congruent with the social-constructionist view of learning. It makes assessment criteria transparent, and has been found to be beneficial in reducing anxiety (Lapham and Webster, 1999) and developing transferable skills, such as team-working and communication skills, which are valued by employers (Biggs and Tang, 2011). Assessment modes which are authentic and measure transferable skills have also been found to encourage students to become more engaged with learning (Sambell et al., 1997) and to help students develop deep learning strategies (Struyven et al., 2005). Nevertheless, despite the evidence that assessment has a major influence on students learning, changes in practice have been 'very slow' and subject 'to compromise and inertia' (Boud and Falchikov, 2007b, p3) and although the benefits of student engagement with assessment are well recognised, as Taras (2002, p503) reminds us, 'student involvement with assessment, whether peer or self-assessment, is still rare in higher education'.

McDowell and Sambell (1999) explored thirteen case studies from the students' perspective and suggest that one of the major advantages of innovative forms of assessment is that they promote intrinsic motivation, particularly when the task is meaningful and relevant; they found that personal involvement was enhanced when students themselves were given some choice and control over the tasks. McDowell and Sambell (1999, p76) also found that it was important that the assessment tasks were 'authentic' and placed the students' learning within a 'realistic context'. Similarly Dochy et

al. (2007) and Wiggins (1989) propose the use of assessment tasks which are closely related to actual work-place activities; students are required to provide an 'active demonstration of the knowledge in question, as opposed to talking or writing about it' (Biggs and Tang, 2007, p181). Biggs and Tang (2011, p95) refer to this as 'constructive alignment' as the learner actively constructs knowledge by undertaking an assessment task which is aligned with the intended learning outcomes. Whereas traditional forms of assessment, particularly multiple choice examinations, tend to encourage surface learning (Scouller, 1998, Dochy et al., 2007), a combination of summative and formative assessment, involving constructive feedback and problem-based learning (Curle et al., 2006), where both functioning knowledge and declarative knowledge are constructed simultaneously (Biggs and Tang, 2011), has been found to encourage deep learning (Gijbels et al., 2005).

Offering flexibility and variety in assessment mode and involving students in the process offers the possibility of bridging the formative/summative divide. Black et al. (2003, p14) suggest that self-assessment might be 'an important feature of any programme of formative assessment'. Certainly, student engagement with the assessment process and participation in dialogue and conversations between students and tutors as well as interactions between students themselves have been shown to have a powerful influence on learning (Hounsell, 2007, Rust, 2007) as well as providing opportunities for students to construct an active understanding of feedback messages (Nicol and Macfarlane-Dick, 2006). However, there is a 'reluctance' to change assessment practice (Rust, 2007, p235) and, as Price et al (2010, p481) remind us, the potentially formative nature of assessment as a vehicle *for* learning is undermined as 'in current practice the measurement and accreditation *of* learning generally takes priority'.

Elton (2004, p46) objects to the 'strait-jacket of grades' and makes a strong case for 'profiling' which provides a detailed profile of students' skills rather than their knowledge. He argues that students should be given the opportunity to 'play to their strengths' and 'demonstrate their best' and since everyone is different 'treating us as if we are all the same is not only unfair in itself, but unintentionally disadvantages those who happen to be different from the norm' (Elton, 2004, p49). Indeed, Bridges et al. (2002), who compared students' coursework performance with their performance in formal time-constrained examinations within six subject areas across four HEIs, found that undergraduates achieved higher grades in coursework in all subject areas in the study. They suggest that higher marks were achieved in coursework because the students were in control of the task, they did not need to rely on 'memory recall', they were given more guidance by tutors and they were not required to communicate information 'under conditions of relative stress' (Bridges et al., 2002, p46). Similarly Craddock and Mathias

(2009, p128) introduced assessment choice in a BSc healthcare programme as 'larger than anticipated numbers of students were failing the traditional time-constrained unseen examinations'. Students were offered two choices: a closed book written assessment based on a research scenario they were given two weeks prior to the assessment; a 2500 word written assignment about a research study they were required to design to address a research question (from a choice of two). From a cohort of 40 students 18 opted for the closed book examination and 22 for the research design option; no significant difference was found in the marks achieved by each group. However, Craddock and Mathias (2009, p130) noted that 'all five students with dyslexia opted to complete the assignment option of designing a research study rather than the closed book written assessment' suggesting that using alternative assessments 'was a feasible option, especially enabling the assessment needs of students with specific learning difficulties to be met'.

Developments in online technologies can provide the interactivity to encourage students to engage with learning and may also play a role in broadening the range of assessment modes and bridging the gap between summative and formative assessment (Bull et al., 2004). They can do this by facilitating tutor-student dialogue which has been found to be 'essential' for effective feedback (Nicol and Macfarlane-Dick, 2006, p210). Computer-aided learning and computer-based assessment are increasingly being used in higher education, reflecting the pervasive use of technology in the workplace (Irwin and Hepplestone, 2012, Warburton, 2006). Although multiple choice questions and multiple response questions are the two types of computer-based assessment most frequently used (Bull et al., 2004), online assessment in the form of videos, blogs and wikis and Web 2.0 tools may also be used to present work in more flexible ways and aid collaboration between students involved in joint projects. Accessibility options presented by online technology are particularly relevant to dyslexic students and may serve to improve students' ability to engage with the assessment format including text-to-speech and speech-to-text options (Irwin and Hepplestone, 2012). The development of social bookmarking makes possible multi-authored bookmark pages so that students (and also tutors and lecturers) can collaborate on projects irrespective of their location; tagging ensures that individual contributions can be monitored and the process of creation as well as the final product can be viewed (Alexander, 2006). However, as Irwin and Hepplestone (2012) point out, although new technologies expand the range of assessment modes and potentially provide more flexibility, they also raise questions about the amount of support which might be needed for both students and tutors and the availability of resources within HEIs to provide support; care must be taken to ensure that they do not prove to be as discriminatory as traditional examinations.

Despite the many advantages, innovative modes of assessment are not without their difficulties. They may give rise to concerns about validity, reliability and marker bias when they involve subjective judgments. They have been criticised for lack of consistency such that 'comparability of performance is difficult to effect' (McLellan, 2001, p311), particularly if students are allowed a flexible choice of assessment mode as 'different markers are likely to have different experiences and attitudes towards a variety of formats', which could result in bias in marking (Irwin and Hepplestone, 2012, p778). Irwin and Hepplestone (2012, p779) caution that giving students choice in the mode of assessment may result in them choosing 'the same format each time' and playing to 'existing strengths' rather than developing their skills. Race (2007, p59) suggests that some form of oral assessment may be needed to ensure ownership of evidence as this may 'sometimes be in doubt' if students choose assessment modes such as portfolios. Although presentations encourage the development of good communication skills and are often relevant to skills required in the workplace, they may be very time-consuming (Baume and Yorke, 2002), provide only transient evidence should an appeal be made, and marker bias is hard to eliminate as they cannot be anonymous (Race, 2007). Similarly oral examinations, which might be a useful as a means of checking ownership and in fostering skills needed in the workplace, might cover only a narrow agenda (Race, 2007). Poster displays, while providing opportunities for peer assessment and encouraging the development of transferable skills, also present assessment challenges as it is 'hard to formulate … assessment criteria' (Race, 2007, p68).

Although HEIs are employing a greater range of assessment modes, these are often in the form of open book examinations, where students are allowed to take texts into the examination room, or seen examinations, where students are given prior information about the questions. Price et al (2010, p483) suggest that 'the belief that standards are safeguarded by traditional assessment processes continues to prevail' because 'the system has "worked" for so long and because "traditional" equates with "tried and tested"'. Certainly Irwin and Heppleston (2012, p782) consider 'stakeholder attitudes' to be a 'potential obstacle' and Race (2007, p37) observes that 'traditional unseen written examinations still make up the lion's share of assessment in higher education'.

**Dyslexic students' approaches to learning**

As I have described above, over the last thirty years there has been considerable research into how students approach learning; it is now widely accepted (in Western culture) that students can very readily adopt a surface, deep or strategic approach to learning depending on how they perceive the learning context and the assessment task (Ramsden, 1992, Prosser and Trigwell, 1999, Norton, 2009). Nevertheless, despite this wide body of

knowledge about how students in general approach learning tasks, and Singleton's (1999, p38) contention that dyslexic students 'need quite different ways of revising', little research has been carried out into how dyslexic students go about the process of preparing for examinations in HE.

Historically research into student learning has seldom made mention of disabled or dyslexic students yet there is a small body of research into dyslexia and learning style. Mortimore (2008) provided an important bridge between theory and practice by applying learning style theory to dyslexic students' learning and developed a range of practical teaching strategies. Learning style is defined as 'cognitive style applied to a learning task', where cognitive style is taken as 'the way in which an individual thinks' (Riding and Rayner, 1998, p7) or 'processes information from the environment' (Mortimore, 2008, p12). Although there is some debate about whether cognitive style is fixed or can be varied according to the learning situation (Mortimore, 2008), Riding and Rayner (1998, p7) amongst others (Schmeck, 1988, Pask, 1988) consider that it is 'an in-built automatic way of responding … probably present at birth or at any rate fixed early on in life'. Certainly, according to Mortimore (2008, p11) the 'majority opinion' considering the 'changeability of learning style' is that 'an incipient style is crystallised through experience and interaction with the environment'. The field of learning styles is extensive and one of conceptual complexity and some controversy. Most notably Coffield et al. (2003) highlighted problems through their systematic review and Cooper (2006, p58) has criticised labelling learners using 'untested questionnaires'. Certainly it is necessary to 'exercise caution' when considering learning style as there is 'currently little agreement in the world of learning style research as to the validity of the constructs or outcomes of matching style and teaching methods' (Mortimore, 2005, p147).There is some evidence that dyslexic students have a preference for visual and kinaesthetic strategies (Desmet, 2007) but this has not been confirmed by other studies (Mortimore, 2006). Currently 71models of learning style have been identified (Coffield et al., 2004) each underpinned by its own theoretical framework and mode of assessment – the majority limited by adopting a psychometric approach in the form of self-report tests such as inventories (e.g. Kolb, 1985) or questionnaires (e.g. Honey and Mumford, 1986)

## Summary

This review of the literature shows that prior to implementation of recent anti-discrimination legislation, provision for disabled students in HE was largely made on an *ad hoc* basis. A reactive rather than a proactive approach was prevalent as adjustments such as providing lecture notes, allowing extra time in examinations or alternative means of assessment were frequently perceived as add-ons, given at the discretion of the individual HEI, faculty or department. Recent legislation has required HEIs to engage with

the social model of disability in their institutional policy although there remains resistance to change as institutional practice often continues to reflect the individual-deficit model of disability where the onus is on the individual to adapt. Resources are often focused on helping students negotiate barriers and arrange 'compensatory' conditions rather than changing the fundamental structures themselves. Dyslexic students continue to experience barriers to full participation including attitudinal problems, lack of awareness among staff and deeply embedded, taken-for-granted assumptions equating literacy with academic ability.

There is a body of literature that leads me to conclude that assessment is of concern to all students but most particularly to dyslexic students who are often disadvantaged by the HE tradition of privileging the written word as the principal mode of assessment. Assessment is *the* central catalyst for learning and also the most powerful influence and decisive factor on a student's approach to learning and, in the case of dyslexic students, a determining factor influencing their choice of university, course and modules within the course. Although HEIs are encouraged to use a range of assessment modes, particularly those which are 'authentic', develop life-long learning skills and promote student engagement and ownership of the process, assessment *of* learning rather than *for* learning appears to take priority.

To enrich the current body of knowledge, my work would explore the ways dyslexic students approach the task of revising for examinations, the influences on the development of their revision strategies and their feelings about examinations. I sought to add the voices of dyslexic students to the current re-think of assessment practice taking place in many HEIs, enabling their views to be heard when choices are made, influencing inclusive practice at a strategic level so that it is embedded within university culture rather than provided later as an afterthought after important decisions have been taken.

In the next chapter I describe my research methodology including my theoretical stance and the philosophical foundations of the study.

# Chapter Three: Methodology

## Introduction

In this chapter I provide a rationale for the research paradigm, the research design and a description of the method including the recruitment of participants, data collection and data analysis. I also address ethical concerns, rigour and reflexivity.

The methodology and methods I employed were determined by the research questions and on a more fundamental level by my theoretical perspective. By identifying and explaining the underlying theoretical perspective and the associated epistemological, ontological and methodological assumptions, I make explicit my decisions and reasoning. I begin by returning to my research aims and questions before describing the research paradigm, my theoretical stance and the philosophical foundations of the study.

## Research aims and questions

In exploring the revision strategies of dyslexic students my aim was to search for understanding and explanation within context: to provide an insight into the lived experience of dyslexia in HE, specifically students' feelings about examinations, their revision strategies and the influences on the development of those strategies.

The research questions were:

- How do dyslexic students revise for examinations in HE?
- Are specific tactics or learning strategies used?
- What has influenced the development of the strategies?
- How do dyslexic students feel about the experience of examinations?

## Rationale for the use of the qualitative paradigm

The philosophical assumption underpinning qualitative or interpretive research is that reality is a construct determined by the interaction of individuals with their social world (Merriam, 1998); it is concerned with the way in which individuals 'interpret their social reality' (Bryman, 1988, p8). Qualitative research focuses on natural rather than artificial settings, on meanings rather than behaviour and takes an inductive approach to

understanding rather than a deductive approach based on a priori assumptions (Hammersley, 1992, Cohen et al., 2000, Gillham, 2000). An inductive approach was consistent with my research aims. Rather than deciding variables in advance and 'pigeon holing' (Patton, 2002, p56) participants into standardised categories, my aim was to ground my findings in the data and allow dimensions, patterns and relationships to emerge.

Qualitative research is concerned with the socially constructed nature of reality and individual perspectives. Rather than claiming a value-free, unbiased framework espoused by the quantitative approach, my aim was to celebrate the value-laden, interpersonal nature of the qualitative approach and to focuses on each participant's subjective meanings and understandings (Ritchie and Lewis, 2003). Mason (from Mason, 2002b, p3) reminds us that qualitative research is 'interpretivist' in that it is 'concerned with how the social world is interpreted and understood'; data generation is flexible and 'sensitive to the social context'; and analysis produces 'rounded contextual understandings on the basis of rich, nuanced and detailed data'.

A qualitative approach was therefore consistent with my philosophical position and my research aims. It would allow a flexible, sensitive approach to data collection, necessary for a topic associated with a stressful time for students. Most crucially, it would allow me to produce a rich, detailed account where each individual student voice could be heard (Hurst, 1999, Vickerman and Blundell, 2010) and a story could be told (Patton, 2002).

## Locating the study: ontological, epistemological and methodological considerations

The two opposite poles of social reality are generally referred to as 'subjectivist' and 'objectivist' (Cohen et al., 2000). They represent different ways of looking at social reality and different ways of interpreting it (Burrell and Morgan, 1979). My underlying philosophical stance is located firmly towards the subjectivist end of the continuum. It is underpinned by a relativist ontology, which assumes that there are multiple realities (Denzin and Lincoln, 2008), a subjectivist epistemology which assumes that knowledge is subjective, personal and unique (Cohen et al., 2000) and an idiographic methodology which places an emphasis on subjective experience, 'getting inside situations' (Burrell and Morgan, 1979, p6) and understanding individual behaviour.

Unlike the objectivist position, which has traditionally been associated with positivism and the view that research in the social sciences can mirror that in natural science with the implicit assumption that it can be independent of and unaffected by the researcher

(Ritchie and Lewis, 2003), the subjectivist viewpoint is characterised by an interpretive or constructionist view of the world. It is consistent with my philosophical stance and the aims of my study as it emphasises the socially constructed nature of reality. Most importantly, it acknowledges the value-laden process of inquiry and the inevitable influence of the researcher's worldview. Rather than producing hard, tangible facts which can be generalised it presents a perspective and allows a story to be told. The subjective/objective dimensions and their associated social science assumptions are illustrated in Figure 3.1 which I have adapted from Burrell and Morgan (1979, p3). Although represented as two contrasting lenses through which research can be viewed, they might more accurately be perceived as a continuum.
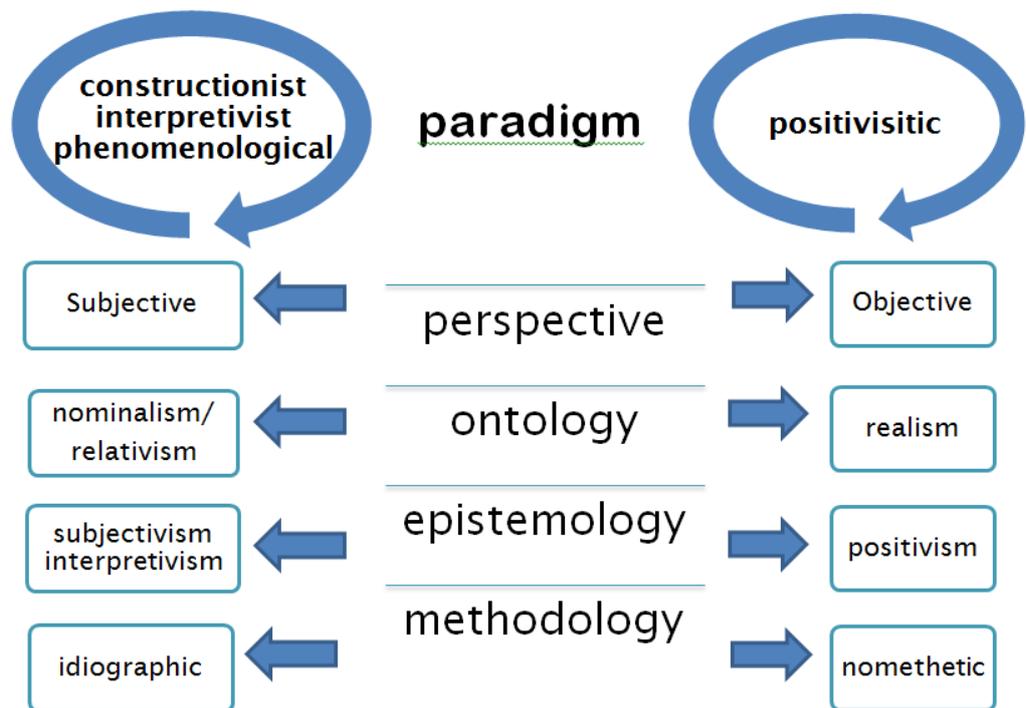


Figure 3.1 The subjective-objective dimension: social science assumptions. Adapted from Burrell and Morgan (1979, p3).

### Social constructionism

I have taken a social constructionist approach as my theoretical framework. My interest is in each dyslexic student's individual experiences and ways of constructing meaning and knowledge. Social constructionism is a suitable philosophical framework as it emphasises the contextual and subjective nature of knowledge and the importance of social interaction and language in the meaning-making process (Crotty, 2003, Berger and Luckmann, 1966, Burr, 1995).

Constructionism is based on the premise of ontological relativity: that there are multiple constructions of reality and that these constructions are contextually and culturally embedded (Berger and Luckmann, 1966, Patton, 2002, Crotty, 2003). From this perspective social reality or meaning is not 'objective' and 'out there' waiting to be discovered but is constructed by human beings as they engage with, interact and interpret the world (Cohen et al., 2000, p6). Knowledge is not found or discovered but is constructed through social interaction and experiences; it is historically and culturally bound (Schwandt, 2000). Concepts are invented and developed to make sense of experiences and these constructs are constantly reinforced, maintained or modified by experience (Schwandt, 2000, p197). Culture mediates thought (Bruner, 1991); individuals inevitably view the world through a lens which is dependent upon their culture: the 'taken-for-granted "reality"' (Berger and Luckmann, 1966, p3). Interpretations of reality are therefore not constructed in isolation but inescapably have a sociocultural and historical dimension; they are constructed 'against a backdrop of shared understandings, practices, language and so forth' (Schwandt, 2000, p197).

My perspective is congruent with the description of social constructionism offered by Crotty:

> The view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context. (Crotty, 2003, p42)

The position I adopt is one of common-sense relativist ontology (from Schwandt, 1997, Schwandt, 2000): things, events, objects exist and are independent of human experience but there is no *meaningful* reality without human interaction and engagement.

**Constructionism or constructivism?**

The terms constructionism and constructivism are often used interchangeably in the literature. Crotty (2003, p58) does, however, make an important distinction between them: whereas constructivism focuses on 'the meaning-making activity of the individual mind', constructionism focuses on 'the collective generation of meaning as shaped by the conventions of language and other social processes'. As Crotty (2003, p58) remarks, ' social constructionism emphasises the hold our culture has on us: it shapes the way in which we see things (even the way we feel things!) and gives us a quite definite view of the world'. Social constructionism from this perspective is congruent with my approach:

the reality perceived by individuals is subjective and influenced by societal conventions, expectations and norms.

# Matching the research design to the research questions: an appropriate strategy of inquiry

My strategy of inquiry was determined by the purpose of the research and defined the methodological practices which would be most effective in answering the research questions (Denzin and Lincoln, 2005). My research design needed to fit my research aims and my philosophical stance. In adopting a constructionist approach I embraced a relativist ontology, a subjectivist epistemology and a naturalistic, idiographic methodology (Denzin and Lincoln, 2003).

**Data collection activities consistent with the qualitative paradigm**

A major consideration in planning my research design was the need for a sensitive, flexible approach to data collection. Examinations and assessment are potentially an extremely stressful time for all students and perhaps even more so for dyslexic students (Singleton, 1999). According to Patton (Patton, 2002, p4) there are three main forms of data collection in the qualitative paradigm: direct observation; in-depth, open-ended interviews; written documents. I considered each of these.

I was aware of the argument that direct observation of participants is the 'most comprehensive' research strategy (Patton, 2002, p21) as it allows construction of data within 'real-life settings' (Cohen et al., 2000, p138) and, in case study, allows 'a comprehensive picture of the site' and a 'sense of the setting' (Simons, 2009, p55) and might appear to overcome the disadvantage of interviews in that there is sometimes a discrepancy between 'what people say … and what they actually do' (Gillham, 2000, p13). I did not, however, consider direct observation to be practical or ethical. Preparing for examinations is, in the main, a solitary activity and my presence as an observer would be intrusive, unwelcome and potentially distracting.

Patton (2002, p293) regards documents in the form of records and artefacts as 'a kind of spoor that can be mined as fieldwork' and I was able to make use of some documentary data. With the participants' permission I accessed valuable background information such as diagnostic assessment reports and course information. Such documentary data has been used by other researchers exploring the experience of dyslexia in HE (e.g. Pollak, 2005) and provided background information and indicated possible areas for exploration in interviews.

Qualitative interviewing, though, presented the most appropriate form of data collection, providing insight into each individual participant's perspective and feelings about examinations. I discuss this in more detail later in the chapter. Although previous studies exploring the ways in which students learn in HE have combined interviews with experimental learning tasks (e.g. Marton and Saljo, 1997), I considered that inviting participants to take part in a 'revision task' would be inconsistent with the naturalistic approach (Lincoln and Guba, 1985), would conflict with my philosophical stance and would be unlikely to address the affective elements of the study.

**A sense of voice**

In designing the research I was aware that there is 'no value-free or bias-free design' and that I should make clear my own biases and predilections (Janesick, 2003, p56). I was also mindful of Janesick's premise that:

> Qualitative design requires the construction of an authentic and compelling narrative of what occurred in the study and the various stories of the participants. (Janesick, 2003, p58)

I decided that using the participants' own words whenever possible would be consistent with my research aims and the philosophical foundations of the research. It would also bring my research to life and perhaps provide the compelling narrative I was looking for. Furthermore, writing in the first person would enable me to keep a sense of my own voice present and help to make transparent any possible biases.

I was influenced by Eisner's emphasis on the importance of a 'sense of voice' and also the use of metaphor and other tropes in qualitative inquiry and suggest that:

> One must be able to use language to reveal what, paradoxically, words can never say. This means that voice must be heard in the text, alliteration allowed, and cadences encouraged. Relevant allusions should be employed, and metaphor that adumbrates by suggestion used. All these devices and more are as much part of the toolkit of those conducting qualitative inquiry as analysis variance is for those working in conventional quantitative research modes. (Eisner, 1998, p3)

I saw the use of metaphor as 'a way of revealing the deeper roots of people's ways of looking at the world' (Burden, 2005, p43). (I discuss this in more detail later in the chapter.)

Denzin and Lincoln (2008) draw on the metaphor of the bricoleur or quilt maker to evoke the many methodological practices employed in qualitative research and Janesick (2003, p46) uses the metaphor of choreography. Both these metaphors were often in my mind as I planned: the need as bricoleur 'to invent, or piece together, new tools or techniques' (Denzin and Lincoln,(2008, p5) and to 'refuse[s] to be limited to one approach' (Janesick, (2003, p46). A strength of qualitative research is that there is no 'distinct set of methods' (Denzin and Lincoln, 2005, p7). Furthermore, the design of naturalistic, qualitative inquiry is inherently flexible and 'unfolds or emerges as fieldwork unfolds' (Patton, 2002, p44). As an interpretive bricoleur, I drew on a range of interconnected interpretive practices to produce a suitable bricolage (Denzin and Lincoln, 2008, p5) to address my research aims.

## Influences on my approach

My approach was influenced and informed by case study (Bassey, 1999; Simons, 2009; Stake, 2008; Yin, 2003), life history (Antikainen et al., 1996; Goodson and Sikes, 2001), narrative inquiry (Chase, 2008), grounded theory (Strauss and Corbin, 1990), phenomenology (Moustakas, 1994) and in-depth interviewing (Seidman, 2006). Whilst not adhering to one particular approach, I borrowed from a number of traditions.

**Life-history, life-story and narrative**

My aim was to draw out each participant's individual story, to encourage participants to talk about their personal and individual experiences. Narrative inquiry is concerned with 'retrospective meaning making - the shaping or ordering of past experience' (Chase, 2008, p64). It is often regarded as 'a story about a particular event' or a 'significant aspect' of the individual's life (Chase, 2008, p59) and makes use of particular in-depth interviewing strategies which encourage the telling of stories.

Storytelling, or storying our lives appears to be a natural and universal human tendency (Bruner, 2004). 'Stories … present an inner reality to the outside world'; they 'shape and construct' our individual reality (Lieblich et al., 1998, p7) so we become the stories we tell (Denzin, 1989). Life-stories and narrative accounts often emerge during in-depth interviews (Elliott, 2005) and there is a general consensus that this can be encouraged by framing questions using the everyday language of the participants (Elliott, 2005, Chase, 2008). Narratives encourage participants to describe experiences from their own perspective; they place an emphasis on subjectivity. Indeed:

> Storytelling … is what informants do with us when they convey the details and courses of their experiences. The approach does not assume objectivity; rather it privileges positionability and subjectivity. (Reissman, 2001, p696)

A narrative approach therefore fitted my philosophical position and research aims. Furthermore, Goodson and Sikes (2001, p3) point out that life-history research has an important contribution to make to investigations in social and educational settings as accounts are both 'readable and accessible' and use the words and language of the participants - dimensions I was searching for in my study.

According to Goodson and Sikes, life-history research is used for the following reasons:

- It explicitly recognises that lives are not hermetically compartmentalised … and that anything which happens to us in one area of our lives potentially impacts upon and has implications for other areas too.
- It acknowledges that there is a crucial interactive relationship between individuals' lives, their perceptions and experiences, and historical and social context and events.
- It provides evidence to show how individuals negotiate their identities and, consequently, experience, create and make sense of the rules and roles of the social worlds in which they live. (Goodson and Sikes, 2001, p2)

This was a good match for my social constructionist interpretive framework and the underlying ontological assumptions. Most importantly, it appeared to offer a way of tapping into each participant's subjective perceptions. I was not seeking an objective reality but each participant's subjective life-world construction of reality. Nevertheless, I did not think that life-story alone would provide the answers to the research questions. Importantly, I was not intending to invite participants to tell me their life-stories but rather asking them to describe their strategies when preparing for examinations and their feelings about examinations. Indeed, as I found, participants' life-stories - or at least the effects of dyslexia on their academic lives - emerged in the telling.

## Case study

I was initially drawn to a case study approach as its 'methodology is eclectic' (Adelman et al., 1980, p49) and is able 'to deal with a full variety of evidence' (Yin, 2003, p8) such as photographs, documents and artefacts. The underlying philosophy of case study methodology is congruent with my approach. It is naturalistic and is able to capture both the complexity of situations and also the uniqueness of individual cases (Simons, 2009,

Yin, 2003, Stake, 1995); whilst examining a particular instance, it is able to shed light on a general problem (Merriam, 1998). However, an essential element of case study is observation as it is 'the study of a singularity conducted in depth in natural settings' (Bassey, 1999, p47). As discussed earlier, observation did not represent either a practical or ethical means of data collection in my study. Nevertheless, I mention case study for completeness as it influenced my thinking when planning my research design.

## Data collection

I decided to use interviews as the main approach to data collection alongside cultural probes.

Mattelmaki and Battarbee (2002, p23) suggest that cultural probes are 'a means of documenting participants' private lives, contexts and experiences' and thus gaining an understanding of their experiences which perhaps could not be gained by interview or observation. Similarly, Gaver et al. (1999, p1) describe cultural probes as 'collections of evocative tasks' which are 'meant to elicit inspirational responses from people - not comprehensive information about them, but fragmentary clues about their lives and thoughts'. Cultural probes in the form of disposable cameras and log books (note-books for participants to record contextual information about the photographs) therefore appeared an attractive strategy for data collection. Cultural probes might also bring in a more participatory dimension to the research as they would allow participants to actively engage in decisions about data relevant to their own experiences. Participatory research locates power with the participant rather than remaining solely with the researcher – the participant has control and choice (Cornwall and Jewkes, 1995). I was mindful of Mishler's (1991, p118) premise that shifting power from interviewer to participant encourages participants to speak in their own 'voices' and tell their own stories. Adopting use of the cultural probes (disposable cameras and log books) therefore would enrich participant control and elicit more contextual information than could be gathered by interviews alone. I had some concerns that completion of log books might be a distracting task and place unwelcome demands on participants' literacy skills at a potentially stressful time in their academic lives and this proved to be the case.

The use of photography and visual images in research has a long history although traditionally has been given limited status (Prosser, 1998). Photographs were predominantly used by anthropologists as 'visual note-books' – a means of recording information (Banks, 1995, p1). More recently the popularity of visual methods in research has waxed and waned; Silverman (1993, p70) describes images as 'a neglected source of data'. Although, historically, photographs were researcher-generated increasingly

participant-generated photographs are used. The creation of images by participants in collaboration with the researcher is sometimes termed 'collaborative representation' (Banks, 1995), 'self-directed photography' (Moore et al., 2008) or 'reflexive photography' (Harper, 1987, Harrington and Lindy, 1999). I was interested in Mizen's (2005) premise that this participatory approach can reveal aspects of participant's lives that are unavailable or inaccessible by other means. Harper (2008, p187) contends that they 'connect the viewer to the argument', contextualising information and playing a triangulation role. Similarly, Becker (2000, p333), a renowned proponent of the use of visual methods, espouses that 'photographs, more aptly than words, display social phenomenon in context'. My aim was not to use photographs as a 'visual note-book' to record information but rather as research tool which placed control with the individual participant and might therefore give me valuable insight into their world-view as well as providing additional contextual data.

Participant-generated photography has been used in researching the lives of children and adults (e.g. Young and Barrett, 2001, Sharples et al., 2003, Mizen, 2005, Moore et al., 2008). Harrington and Lindy (1999) used photographs, questionnaires and interviews to explore students' perceptions of their first year at university. Ten randomly-selected, first-year students were provided with disposable cameras and asked to take photographs 'that will illustrate your impressions of university' or 'that will help you to describe your impressions' (Harrington and Lindy, 1999, p7). To help elicit as wide a range of responses as possible, instructions to the participants about the images to be recorded, were deliberately non-directive. Participants were subsequently interviewed about their perceptions of university life; the interviews were stimulated by the photographs - a technique first described by Collier (1967) and known as photo-elicitation.

Although visual methods presented a potentially fruitful approach that I was willing to try, I was mindful of the notes of caution. Banks (2008, p81) suggests that photographs should not be analysed 'without further input from the research subject' and Becker (1998, p84) emphasises the need for interpretation in context. Similarly, Mizen (2005, p125) contends that it is the context which gives meaning to the image and without knowledge of the context images can be 'analytically thin'.

As previously discussed, dyslexic students often experience difficulty with reading accuracy and ease of written expression (e.g. Singleton, 1999). Despite this, some researchers exploring the experiences of disabled students (e.g. Avramidis and Skidmore, 2004, Fuller et al., 2004b, Reindal, 1995, Goode, 2007) have employed questionnaires and surveys as research tools; they have sought to improve accessibility by enlisting the help of experts to advise on aspects such as wording, font size and colour of paper.

Questionnaires allow data to be gathered from a large number of participants and, as they can be distributed and returned anonymously, are sometimes thought to encourage greater openness, particularly when sensitive questions are asked (Cohen et al., 2000). However, they are often completed hurriedly and questions may be misread or misinterpreted (Cohen et al., 2000); these difficulties may well be exacerbated if the participant's literacy skills are not automatic.

Although from a practical point of view questionnaires appeared an attractive research tool, they were neither consistent with my philosophical position nor were they appropriate for addressing the affective elements of my study. Questionnaires act as a 'buffer' between the researcher and the participants (Lincoln and Guba, 2003, p229), they tend to 'oversimplify multiple meanings' (Smith, 1986, p42) and whilst they might allow me some insight into how participants approached the task of preparing for examinations in a 'standardised' format, I felt that they were unlikely to reveal participants' thoughts and feelings about examinations.

Interviews are particularly appropriate for research including dyslexic participants as, unlike questionnaires and surveys, they allow questions to be clarified and explored in greater depth, are less subject to misinterpretation, require only a verbal response and do not depend on literacy skills. Moreover, as Miller and Glassner (2004, p124) note, they 'may provide access to the meanings people attribute to their experiences and social worlds'. Interviewing therefore was congruent with my research aims and appropriate for dyslexic participants, allowing the participants' voices to be heard.

I was mindful of Rubin and Rubin's (2005, p4) premise that qualitative interviews are 'conversations in which a researcher gently guides a conversational partner in an extended discussion', and I considered using focus group interviews alongside individual interviews. Indeed, small-scale group or focus group interviews have been used when exploring the experiences of disabled students in HE by researchers such as Shevlin et al. (2004) and Fuller et al. (2004a). However, group interviews are susceptible to 'group think' where more assertive individuals may dominate the interview thus preventing diverse responses (Simons, 2009, p49). Importantly, 'group interviews are of little use in bringing intensely personal issues to the surface' (Watts and Ebbutt, 1987, p33). Therefore, I did not consider they would be an appropriate strategy for tapping into individual perspectives and subjective experiences which would constitute the nuanced, rich data I sought. Certainly, Simons (2009) considers that it is the unstructured, interpersonal interview that encourages openness and allows individuals to tell their stories. Individual, interpersonal interviews therefore appeared to be the most suitable research tool to inform the research questions and the most consistent with my

philosophical stance. Interviews afforded the additional advantages of being suitable for exploring 'fact' and opinion (Yin, 2003, p90), allowing the interviewee to check for 'immediate confirmation or disconfirmation of the interpretation' (Kvale, 2007b, p11), and allowing for changes of direction or additional probing (Simons, 2009).

Types of interview are, in the main, delineated by their degree of structure. They can range from informal open-ended conversations to the formal structured interview where pre-determined questions are asked to a standardised schedule (Cohen et al., 2000). Notwithstanding Simon's (2009) advice that openness is favoured by unstructured interviews, in the first phase of my study, I decided that semi-structured interviews would be most appropriate as they would enable me to explore all the research questions. However, in the light of my experiences in phase one, I decided that phase two interviews should be less structured; rather than being researcher-led, they should take the form of informal conversations stimulated by photographs taken by the participants. I explain the rationale underpinning this decision and details of my interview strategy later in this chapter.

Certainly, individual interviews have been employed as a means of generating data by a number of researchers exploring the experiences of disabled students in HE. Suritsky (1993) chose interviews when investigating the note-taking difficulties of students with learning difficulties as she felt that students would provide more detailed information verbally than they would be prepared to write. Similarly, researchers such as Hanafin et al. (2007), Tinklin and Hall (1999), Holloway (2001), Waterfield and West (2006a) and Goode (2007) have carried out interview-based research as a means of involving disabled students as intimately as possible in the research process.

Notwithstanding this, although interview-based research has become increasingly popular as a means of hearing the voices of students themselves, it is not without its critics. Hammersley (2003, p210) discusses some of the radical criticism about the use of interviews and suggests that they are 'social situations'; interviewees may be preoccupied by 'self-presentation' rather than in revealing facts about themselves – what interviewees say is not necessarily what they do. Indeed, as Scott (1996, p65) reminds us, interviews are 'social activities' which incorporate an asymmetrical relationship between interviewee and interviewer'. Interviewing is not a 'neutral tool'; interview knowledge is 'inextricably and unavoidably historically … and contextually bound' (Fontana and Frey, 2005, p695). I was mindful of these potential hazards in planning my research design and discuss them later in this chapter.

In adopting a social constructionist perspective I subscribe to the notion that social interaction in the form of an interview both conveys and constructs meaning (Holstein and Gubrium, 1994). Interviewing is thus a meaning-making exercise rather than a 'mining' enterprise where the interviewer excavates for information residing in the interviewee (Holstein and Gubrium, 2002, Kvale and Brinkman, 2009). As Kvale and Brinkman (2009, p18) remind us, 'the process of knowing through conversations is intersubjective and social'; both the interviewer and interviewee are 'co-constructors of knowledge'. As the interviewer, I am inevitably and unavoidably involved in the creation of meaning and interview knowledge. Indeed, the active nature of interviewing is emphasised by Holstein and Gubrium who observe:

> Meaning is not merely elicited by apt questioning, nor simply transported through respondent replies; it is actively and communicatively assembled in the interview encounter. (Holstein and Gubrium, 2002, p113)

Notwithstanding this, whilst not subscribing to the notion of the sanitised, standardised interview, neither did I want to impose my own meanings, biases or taken-for-granted assumptions on the participants. I was aware that my role within the university might perhaps indicate to participants that my own ideas and opinions were the 'correct' answer (this is discussed in more detail later in this chapter). There is an inevitable power asymmetry in interviews; they are not everyday conversations (Kvale and Brinkman, 2009). As the researcher, I am asking (most of) the questions and the participant is answering. This is not a 'neutral exchange' but, as mentioned previously, an active process that 'leads to a contextually bound and mutually created story - the interview' (Fontana and Frey, 2005, p696). My aim was to adopt a stance of 'empathetic neutrality' (Patton, 2002, p53), to be in the world of the other (Moustakas, 1995) and to provide a relaxed, conducive atmosphere where the participants felt able to speak freely and openly.

Nevertheless, although my aim was not to be directive during interviews, neither did I see myself as a passive recorder of facts. I was keen to stimulate participants to express their subjective interpretations of experiences. Holstein and Gubrium refer to this as 'active interviewing' and consider that:

> The objective is not to dictate interpretation, but to provide an environment conducive to the production of the range and complexity of meanings that address relevant issues, and not to be confined by predetermined agendas … The active interviewer's role is to incite respondents answers, virtually *activating narrative production*. (Holstein and Gubrium, 2002, p121, original emphasis)

Subjectivity was paramount. I was seeking to explore each participant's individual perspective and point of view.

**Pilot study**

In deciding on a pilot study before beginning my main data collection activities, I was aware that Merriam (1998, p75) considers pilot interviews to be 'crucial' as a means of trying out questions; they also afford the opportunity to add questions suggested by the respondent – questions that may not have been thought of earlier. I was also mindful of Janesick's (2003, p58) advice that a pilot study - or in her terms a 'stretching exercise' - is an opportunity to refine and modify the research strategy. Indeed, this is one of the many advantages of qualitative research and one which Janesick (2003, p59) considers essential to the research 'dance'.

I carried out the pilot interviews four months before the main interviews to allow time to reflect. I used opportunistic sampling (discussed later) to recruit two participants for the pilot interviews. Both students were well-known to the dyslexia support services at the university and, in the first instance, I contacted them by email to reduce any suggestion of coercion. Both students responded positively and after an exchange of information, I arranged meetings with them at the offices generally used for tutorial support with dyslexic students at the university. This was familiar territory for the students and I believed that they would therefore feel at ease.

The pilot interviews led me to refine and modify my strategy in the following ways:

- Although documentary evidence about the students was available, I decided that I would carry out the first interview without reading this in detail, merely noting the subject studied by the participant and the year of study. I considered that this might help me avoid any preconceptions. This strategy was modified in subsequent interviews as I found that a good understanding of the background information aided rapport and avoided misunderstandings.
- In my initial analysis of the data the concepts of resilience and empowerment appeared to have some significance. I decided that it might be interesting to explore these concepts with participants at the very end of subsequent interviews. This strategy was followed for the phase one interviews but not continued in phase two as the concepts did not appear to have particular resonance.

The pilot interviews also provided an opportunity to discuss my research and data collection strategies with the participants. Both felt that other participants would be

willing to take photographs provided they were supplied with cameras, though one thought participants might be tempted to 'tidy-up' before taking photographs undermining the realism of the context. Both pilot study participants were less sure that students would be happy writing logs. This was something I had anticipated and, indeed, proved to be the case.

**Summary of my research design**

In the light of the pilot interviews, I decided that in-depth, semi-structured interviews and cultural probes in the form of disposable cameras and log books were the most appropriate methods. I anticipated that my research would be in two phases; however, mindful of Patton's (2002, p44) advice that 'naturalistic inquiry cannot usually be completely specified in advance' but instead 'unfolds or emerges as field work unfolds', I decided that the second phase of my research would be planned in view of my experiences in phase one. I illustrate a summary of my research methodology in Figure 3.2. A more detailed account of my data collection activities is given later in the chapter; I provide a brief summary below.

A journey through the literature

Research ideas and questions - how do dyslexic students revise for examinations in HE?

Theoretical perspective: relativist ontology, subjectivist epistemology, idiographic methodology. Social constructionism chosen as theoretical framework as it emphasises the contextual and subjective nature of knowledge.

Method and data collection activities - decision made to use interviews and cultural probes (cameras and log books).

Phase one data collection: semi-structured interviews carried out, fieldnotes made, documentary material gathered, cultural probes given out and four returned. Audio recordings transcribed, returned to participants. Beginning of analysis.

Preliminary data analysis: Revision strategies categorised into three broad, overlapping bands: emotional, practical and cognitive. Criteria developed for each category.

Phase two data collection: interview strategy revised in the light of phase one experience; conversational interviews stimulated by photographs taken by participants *prior* to the interviews.

Data analysis: profiles crafted, thematic analysis of phase one and phase two data - in the main using paper copies of transcripts and audio recordings (alongside NVivo). Inductive, emic analysis, extracts coded, coded extracts categorised, indigenous typologies drawn up.

**Figure 3.2 Summary of methodology**

**Phase one**

In phase one I invited participants to come along for an interview to tell me about their revision strategies and their experiences of exams (see Appendix 1). Immediately after each interview I invited participants to take photographs of anything that was important to them in the process of revising for examination. My instructions were deliberately as non-directive as possible. I gave each participant a plastic wallet containing a disposable camera, a small note-book and a card providing instructions in written format as a reminder of the verbal instructions (see Appendix 2). The note-book was provided so that participants could make a note of about what was in the photographs and the reason for their importance.

**Phase two**

In the light of my experiences in phase one, I decided to modify my strategy. I asked participants to take photographs of 'anything important to them when revising' *before* inviting them to come along for 'a chat about the photographs'. The subsequent interviews were structured around the photographs taken by the participants. Rather than in-depth semi-structured interviews, phase two interviews might more accurately be described as guided conversations stimulated by the photographs.

## Sampling

Sampling strategy can be divided into two broad categories: probability (or random) where inclusion is a matter of chance and every member of the wider population has an equal opportunity of being selected and non-probability where some members of the wider population are excluded – everyone does not have an equal chance of inclusion (Cohen et al., 2000). Non-probability sampling allows deliberate targeting of a particular group 'in the full knowledge that it does not represent the wider population; it simply represents itself' (Cohen et al., 2000, p102). I was not searching for a representative sample in order to generalise my findings but rather a small sample of participants 'nested in their context' (Miles and Huberman, 1994, p27). In addition, it was important that I could apply inclusion and exclusion criteria in order to target a particular group. Non-probability sampling was therefore the most appropriate strategy for my study.

In deciding on my sampling strategy I was mindful that non-probability sampling takes a number of forms: *convenience* or *opportunistic sampling* where participants are chosen on the basis of their availability; *quota sampling* where there is an attempt to represent significant characteristics of the wider population being studied; *snowball sampling* where

existing participants are enlisted to recruit or identify other potential participants; *purposive (or purposeful) sampling* where participants are selected for a specific purpose - because of their 'typicality' (Cohen et al., 2000). The latter appeared the most suitable strategy for my research aims for the reasons I discuss below.

According to Stake (1995, p4) the primary criteria of sampling is that it should 'maximise what we can learn'. My aim was to explore how dyslexic students revise for examinations, to gain insight into what had led to any strategies students use and to explore how students feel about examinations. Purposive sampling was the most appropriate approach because it allowed me to select participants from whom the most could be learned (Merriam, 1998, p61).

Other researchers investigating disabled students in HE have employed purposive sampling. For example, it was used by Mortimore and Crozier (2006), who explored the difficulties and support needs of dyslexic students in HE; they sought to recruit male dyslexic students studying a range of subjects across a number of HEIs to take part in a survey. Goode (2007) used maximum variation (heterogeneity) purposive sampling. Rather than seeking only male dyslexic students, Goode (2007) sought to include male and female students with a range of disabilities across different university departments and at different stages of their study. Similarly, Hanafin et al. (2007), who explored the assessment challenges for disabled students in HE, employed purposive sampling to recruit students with a range of disabilities studying a diversity of subjects. Indeed, Patton (2002, p235) suggests that maximum variation purposive sampling turns the 'apparent weakness' of small samples into a strength as:

> Any common patterns that emerge from great variation are of particular interest and value in capturing the core experiences and central, shared dimensions of a setting or phenomenon. (Patton, 2002, p235)

Purposive sampling fitted with my aim to recruit as diverse a range of dyslexic students as possible: male and female students, studying a range of subjects and at different stages in their study.

**Criteria for selecting participants**

To address the research questions and to maximise what I could learn (Stake, 1995), I needed to apply inclusion and exclusion criteria in selecting the participants. I would include:

- Students enrolled on a course at the university.
- Students currently (or recently – within the last year) undertaking examinations in the form of timed, written assessments.
- Students over eighteen years of age.
- Documentary evidence of dyslexia available in the form of a diagnostic assessment report in accordance with the current assessment criteria set out by the DSA SpLD Working Group guidelines (SpLD Working Group, 2005). This is the criteria used by HEIs in providing special examination arrangements and support for dyslexic students

I would exclude:

- Students outside the university.
- Students meeting the inclusion criteria but with an overriding condition, such as Asperger's syndrome or a mental health problem.

As discussed earlier, I considered maximum variation purposive sampling with the aim of recruiting a diverse range of dyslexic students across a range of disciplines within the university to be the most suitable strategy with the potential to address the research questions. In recruiting participants I was mindful that dyslexia is generally considered to be more prevalent among males than females by a ratio of approximately 4.5:1 (Miles et al., 1998); however, prevalence figures are generally based on school children and may be influenced by differences in classroom behaviour between girls and boys leading to a greater proportion of boys identified as experiencing dyslexia (Vogel, 1990). Both the National Working Party on Dyslexia in Higher Education (Singleton, 1999) and Richardson and Wydell (2003) found the ratio of male to female students in HE declaring dyslexia to be much more evenly balanced with ratios of 1.6:1 and 1.7:1 respectively. I hoped that by inviting participants from all students registered with the dyslexia support services at the university I would be able to recruit both male and female students studying a range of subjects. My aim was not to mimic the quantitative approach and to recruit a representative sample but instead to achieve as diverse a range of dyslexic participants as possible. With the permission of the head of service, I sent an email giving information about the study and requesting volunteers to all students registered with the dyslexia support services at the university. In the following section I set out more detailed information about the recruitment process and the ethical and practical factors that I took into account.

# Ethical dimensions of the research

According to Simons (2009, p96), 'the fundamental ethical principle in research' is that the researcher should 'do no harm'. Throughout the research process, I was aware of the potential vulnerability of the participants and was sensitive to their needs. I endeavoured to act in an ethical way and was guided in my approach by the ethical guidelines set by the British Educational Research Association (BERA) (2004) and by the University of Southampton, School of Education, Ethics Review Checklist (see Appendix 3). The School of Education Research Ethics Committee at the University of Southampton gave ethics approval for the research. I set out below some of the ethical dilemmas inherent in the research and the ways in which I endeavoured to deal with them.

Interviews, and most particularly in-depth interviews, represent an ethical challenge as they may expose 'thoughts feelings, knowledge and experience not only to the interviewer but also to the interviewee' (Patton, 2002, p405). I was aware, personally and professionally, that dyslexic participants may have experienced years of humiliation, sadness, anger or confusion throughout their schooling and that it was possible that in-depth interviewing might 'open old wounds' (Patton, 2002, p406). Furthermore, as a dyslexia assessor and tutor within the university, I was familiar with discussing sensitive topics with students and also aware of the process of referral to other university support services, such as counselling and mentoring, should the need arise.

Firstly, I needed to consider the timing of interviews. Examinations are a stressful time for most dyslexic students (Fuller et al., 2004b) and it was neither realistic nor appropriate to add to the workload of dyslexic students immediately before examinations. Indeed, as Mortimore and Crozier (2006, p238) observe, dyslexic students may be 'reluctant to commit themselves to participation, particularly if they are experiencing difficulties keeping abreast of the study commitments that the research is intended to investigate'. Therefore, my first email, requesting volunteers to take part in the study, was sent to all students registered with the dyslexia support services at the university (over 1000 students) in March – well before the university May/June examination period and after the end of the first semester examinations held in January/February.

I gained permission from the head of the dyslexia support service for the study to take place and for students to be contacted. As I am a member of staff at the university, it was essential to avoid any form of coercion or pressure on students to take part. I sent a general email, giving information about the study and requesting volunteers, to all students registered with the dyslexia support services at the university. The same procedure was followed in both phases of the study (although the wording was slightly

different in phase two as my strategy had been modified - this is discussed later). The advantages of email contact are its familiarity as a form of contact for students; the ease in which students can choose to ignore the request without embarrassment; and the potential to reach large numbers.

Informed consent entails not only gaining the consent of participants but also ensuring that they 'understand the process' (BERA, 2004, p6). I was mindful of Patton's (2002, p406) advice that in qualitative interviewing information should be given about the purpose of collecting information both 'in advance of the interview' and also 'at the beginning of the interview'. I replied by email to all students who volunteered to take part in my study. I followed up the email with telephone calls to give more details and to ensure that potential participants understood what taking part would entail and were happy to proceed. Further telephone calls and emails were exchanged to arrange times/locations for the interviews.

Immediately before each interview I again gave a verbal explanation of the study. In addition, I provided each participant with an information sheet and an opportunity to ask questions. In drawing up the information sheet I gave consideration to the difficulties that dyslexic students often have with reading accuracy and rate. Information was therefore given as clearly and as succinctly as possible - both verbally and in written format. I obtained written consent from all participants and they were made aware that they could withdraw from the study at any time. I also gained permission to record the interviews and explained that I would transcribe the interviews and send them a copy of the transcript so that they could make additions or amendments if they wished. (See Appendices 4 and 5).

I contacted all students who had volunteered to take part but who did not meet the inclusion criteria to thank them and to give them an explanation in order to avoid any negative feelings.

Participants in research have an entitlement to privacy and must be accorded the right to confidentiality and anonymity (BERA, 2004).To maintain confidentiality it is important that data are stored securely. I was committed to and abided by the terms of the Data Protection Act (1998). All the original unedited and potentially identifiable contributions remain stored on a password-protected computer and artefacts are kept securely. On completion of the study, I will continue to maintain securely all the data including interview transcripts, artefacts and photographic evidence. This will be kept for the university recommended time period to ensure auditability and then destroyed.

Cohen et al. (2000, p61) observe that 'the essence of anonymity is that information provided by participants should in no way reveal their identity'. Anonymity not only means that individuals and research sites should not be named but also that information which might allow the individual or research site to be identified by others should not be revealed (Walford, 2005). However, Walford (2005) concedes that anonymity can rarely be achieved and perhaps it is transparency that is more important. Unlike research using surveys and questionnaires, it is not possible for research involving face-to-face interviews to be carried out anonymously. By describing my role within the university, the research site is inevitably identified. Nevertheless, I have made every effort to protect the anonymity of the participants. All have been given pseudonyms in the thesis and I have also anonymised other information which might potentially reveal participants' identity.

Interviews are social situations (Holstein and Gubrium, 2002, Cohen et al., 2000) where knowledge is constructed during interpersonal interaction between the interviewer and the interviewee (Kvale and Brinkman, 2009). Interviewing is thus an active process, it is a 'collaborative effort' which results in 'a contextually bound and mutually created story - the interview' (Fontana and Frey, 2005, p696). As a member of staff at the university I was very aware of the relevance of Cohen et al.'s (2000, p122) notion that as 'social situations' power is a significant dimension in interviews. Typically power is considered to reside with the interviewer (Cohen et al., 2000, Kvale and Brinkman, 2009) and, inevitably, this power asymmetry may be exacerbated when the interviewer is a tutor and the interviewee a student. The dyslexia support service is, however, a support service. Tutors are known by first names and the atmosphere is relaxed and informal in order to be as welcoming to students as possible. At the time of the interviews the service was located in a residential-type building near the students' union rather than in an office building. Furthermore, to minimise any potential power imbalance, I sought to establish a good rapport with participants from the first contact and took as many opportunities as reasonable and possible to chat to participants informally. Indeed, I took every point of contact as an opportunity to establish a relaxed and conducive atmosphere.

## The participants

Eleven students responded to my initial email requesting volunteers for phase one and ten students for phase two. Five students did not meet the inclusion criteria: four students had another form of specific learning difficulty; one student was reading for a PhD and it was some time since she had taken examinations.

Including the two pilot interviews, ten dyslexic students took part in phase one of the study and four in phase two: eight male and six female. Participants spanned an age

range from 18 to 42 years, were between the first and third year of their course and were studying a range of subjects: nursing; politics; oceanography; medicine; electrical engineering; electronic engineering; archaeology and history; oceanography and geography; philosophy and politics; sports science. I recognise that the participants were self-selecting and discuss this and the implications in Chapter Six. I provide basic demographic and contextual information in Table 3.1.

| Name | Age | Subject | Year of course | Contextual background |
|------|-----|---------|----------------|------------------------|
| Bridget | 20 | Archaeology and History | 1 | Assessed age 13 and given support with literacy for two years. 'A' level grades were too low for her to be offered a place on her present course. Worked in a related field for two years and was accepted on the course in the light of her experience. |
| Ned | 19 | Maths and Economics | 1 | Assessed age 11. Extra support throughout secondary school. Given extra time for GCSEs and A level examinations. Repeated AS year, at his own request, as grades too low. Regrets that he is not able to learn a foreign language. |
| Sharon | 35 | Medicine | 2 | Assessed age 34. Low grade GCSEs. Left school at 16 for an apprenticeship in engineering. Long-held ambition to be a doctor. Took an 'access to science' course before being offered a place to study medicine. Single parent of young children. |
| Eric | 18 | Electrical Engineering | 1 | Assessed age 11and given extra time for GCSE and A level exams. Strong dislike of the dyslexia 'label' but pleased to have support and no longer considered to be 'stupid'. Likes subjects where there is 'a right answer' or else 'is there any point in asking the question'. Would like to study military history but 'all essay-based subjects are off limits'. |
| Max | 22 | Electronic Engineering | 2 | Assessed age 19. Some problems with concentration when young. Predicted low grades when younger but now in line to achieve a first class degree. |
| Tracy | 20 | Nursing | 3 | Assessed age 17. Difficulties noted at primary school but no assessment carried out. Played truant at secondary school. Took a BTEC National Diploma as a route in to nursing. |
| Fiona | 22 | Philosophy and Politics | 2 | Assessed age 6. Given extra support throughout her schooling. Allowed extra time for GCSE and A-level exams. |
| Cindy | 26 | Oceanography | 1 | Assessed in primary school. Early education in the USA and support provided from a young age. Reader and additional time provided for High School examinations in the USA. |

| | | | | |
|---|---|---|---|---|
| Seb | 26 | Nursing | 2 | Assessed age 16. Took BSc in Cognitive Science at another university before present course. |
| Keith | 42 | Nursing | 2 | Assessed age 42 although a long history of literacy difficulties. Left school at 16 – took factory work and latterly worked as a bus driver then healthcare assistant. Now realising a long-held ambition to be a nurse. Prefers subjects 'that are not black and white'. |
| John | 33 | Medicine | 1 | Assessed age nine. Support throughout schooling. 'Jack-the-Lad' at school. Already holds a degree in Business Studies and has spent eight years in the Army Intelligence Corps. Sponsored by the Army on present course. Married with young children. |
| Eve | 20 | Sports Science | 2 | Assessed age eight. Individual support throughout schooling. Initially attended a very academic secondary school - moved to a smaller less competitive school and much happier. Very motivated - hopes to achieve a first class degree then train as a PE teacher. Took part in research to gain points towards her graduate passport. Hates technology. |
| Tim | 22 | Oceanography and Geography | 3 | Assessed age seven. Mother now works in the dyslexia field. Has used a laptop for schoolwork and PC in exams since secondary school. Enjoys technology so that he can work while travelling although he does not record lectures as he has no time to listen back. Assessment mode strongly influences choice of units to study. Prefers coursework/presentations; hates exams. |
| Henry | 22 | Politics | 3 | Assessed as a young child and given support throughout his schooling including extra time and use of a computer for GCSEs and A-levels. Told he would be a dust-bin man when young and remains anxious that dyslexia may adversely affect his career. Feels that he could achieve a first if not dyslexic. Does not like peers to know he is dyslexic. Wishes he had studied a science subject as easier to revise. |

**Table 3.1: Background information about participants**

# Phase one: data collection activities

In the light of the pilot interviews, I revised my interview strategy, as previously described, and drew up an interview guide and protocol for phase one of my research (see Appendix 6).

Patton (2002, p341) argues that 'the quality of the information obtained during an interview is largely dependent on the interviewer'. My aim was to address the research questions and encourage participants to be open in their responses. Rather than standardised information, I was seeking insight into each participant's individual experiences. I drew on my own experiences assessing dyslexic students as well as Seidman's (2006, p15) advice that primarily open-ended questions should be used which could then be followed up and extended so that the participant would be able to 'reconstruct his or her own experience'. Rubin and Rubin (2005) also suggest that 'probes', or questions asking for examples or clarification, encourage vivid description, detail, depth and nuance - all elements I was seeking in my work. I therefore drew up a guide of open-ended questions which I felt would allow flexibility in the order of topics and structure of the questions and allow for follow-up questions and probes, whilst at the same time covering a broad framework which would have the potential to answer the research questions.

One interview took place in the participant's own home, at her request, as she is a single parent of young children and also a medical student, therefore had little free time. All the other interviews were carried out in a quiet environment in the offices of the dyslexia support services at the university. These surroundings are light, airy and friendly and were familiar to all the participants.

I gave each participant a briefing before the start of the interview to provide more details about the purpose of the study and the type of questions that I would ask. I described the way in which the information would be used and discussed confidentiality and anonymity. I gained permission to take notes and to record the interviews and each participant signed a consent form. The briefing before the interview also provided an opportunity for participants to ask questions and for me to 'set the interview stage' (Kvale, 1996, p127-128). I had sought to establish a good rapport with each participant before the interviews and, in most cases, had met and exchanged several emails and phone calls prior to the interview.

At the end of each interview, I debriefed the participant and ran through what we had discussed. This included a summary of what I had learned, which allowed further

clarification and avoided ambiguity; it also provided an opportunity for participants to ask questions and mention any points that had not been covered previously. I reminded participants that the interview would be transcribed and a transcript sent to them, to be added to or amended, as they wished.

My interview guide represented a 'scaffold' (Rubin and Rubin, 2005, p134) or aide-memoire, to ensure that all the research questions would be addressed. However, I did not find it necessary to refer to the guide during the interviews. As advised by Kvale (1996, p130), I translated the research questions into 'an easy-going, colloquial form' and, as far as possible, used an informal conversational style to 'generate spontaneous and rich descriptions'. Questions were given in a clear, simple format and framed in such a way as to encourage openness and to avoid restricting or predetermining responses (Rubin and Rubin, 2005, p15).

The loose framework of the main questions took students through from their very first experiences of learning to the strategies they currently use in HE. This structure seemed to be most appropriate in answering the research questions and also meaningful to the participants and likely to elicit contextual information. Certainly, Mason (2002a, p222) suggests that such a 'life-story' structure allows interviewees to 'craft their own narrative around their own concerns'.

I asked follow-up questions in response to answers given by the participants. These provided the nuance, depth and detail, which is central in qualitative research, and, most importantly, allowed each participant to contextualise their experiences and view of the world. Follow-up questions sometimes took the form of repeating significant words and making it clear that the participant's own narrative was being understood and absorbed. Follow-up questions also allowed a return to topics, which had been discussed earlier in the interview, in order to elaborate on how these topics related to later responses. Probes or probing questions, such as "could you give me an example of that" or "can you tell me a bit more about that", were used as a way of clarifying issues, encouraging interpretation and extending meanings.

Immediately after the interviews, many participants gave me additional information. This I recorded as field notes alongside other contextual information including my impression of the participant's general demeanour and non-verbal communication that had not been recorded digitally.

In phase one, participants were also invited to use the cultural probes and take photographs of anything that was important to them when revising. Five students agreed

to use the cultural probes. Three students were happy to take the probe pack and two preferred to send photographs electronically. In addition, one student brought along his revision notes immediately after completing his final examinations.

## Phase two data collection activities

In the light of my experiences in phase one of the study, I made a number of changes to my research strategy. In the following section I describe these changes, the rationale behind them and my strategies in the second phase of my study.

Many researchers view data collection and data analysis as an iterative cyclical process and urge integration of the two (e.g. Lincoln and Guba, 1985, Miles and Huberman, 1994), although Seidman (2006, p113) suggests that any in-depth analysis should be avoided until all interviews have been completed to avoid 'imposing meaning from one participant's interview on the next'. I found that data analysis inevitably began as participants were interviewed, as transcripts were read and as recordings were re-visited to capture the exact words and emphasis. Notwithstanding this, it was not until towards completion of the phase one interviews that I began any systematic and detailed in-depth analysis.

As previously mentioned, in phase one my interviews were structured around a flexible guide. The guide provided a topic framework but neither predetermined nor limited the conversational nature of the questions. I was not looking for any standardisation of questions or answers but rather a framework around which questions could be developed. My preliminary analysis of phase one data indicated that many participants were not only very happy to describe their revision strategies but also had a story to tell about the emotional impact of dyslexia on their educational lives. Rather than using the lens of any prescribed conceptual framework to view the data, it was clear that taking an inductive approach and a broad perspective might prove effective in capturing the more affective elements of the study: students' feelings and emotions about examinations.

In phase one, immediately after the interviews I had invited participants to take photographs of 'anything important to them while revising' and to complete a log to describe the photographs. This strategy proved to be only marginally successful. Although several participants took photographs, one completed a log and one gave me all his revision notes, I felt that I was capturing very little additional meaningful data from the photographs; they were acting as a way of confirming what participants had described in interviews. In phase two I therefore decided on a different strategy: I invited participants to take photographs *prior* to the interviews. In making this decision I was

influenced not only by my experiences in phase one but also by the photo-elicitation strategies described previously as well as Mishler's (1991) advice that shifting power to participants in interviews encourages them to speak in their own voices and tell their own stories. My strategy in phase two, therefore was to have conversational interviews or 'guided conversations' (Yin, 2003, p89) with participants, stimulated by their participant-generated photographs.

As in phase one, I sent an email to all students who had registered with the dyslexia support services at the university to ask for volunteers to take part in my research (see Appendix 7). However, unlike my strategy in phase one, I asked participants to take photographs before coming along for 'a chat about the photographs'.

Ten students responded to my email invitation, eight of whom met the inclusion criteria. After an exchange of emails and telephone calls, I was able to make arrangements for seven of the potential participants to call at the dyslexia support offices and collect a disposable camera. The eighth participant kindly offered to take digital photographs; he subsequently brought them along on a CD when he came for the interview.

As in phase one, I asked students to take photographs of 'anything important to them when revising'. If students asked what I meant by 'anything' (which several did), I explained that the photographs could be of, quite literally, anything - people, places, things, anything that they felt was of some relevance or importance to them when revising for exams. In all my interactions with potential participants, I was mindful of the ethical principles underpinning research. I was also mindful that examinations are a stressful time for most students and possibly particularly so for dyslexic students.

Three potential participants lost the cameras; these were replaced. One potential participant took photographs but there appeared to be a fault with the camera and the photographic film was blank. One potential participant took photographs and intended to come along for the interview after completing his finals but a very serious family crisis meant that he was unable to do so. One participant became seriously ill. Therefore four participants took part in phase two of my study. The four participants did, however, give me very rich data.

Whereas phase one interviews had been structured around a loose framework, phase two interviews took the form of conversations stimulated by photographs the participants had taken of 'anything important to them when revising'. In line with the narrative approach employed by Antikainen et al. (1996), who researched the meaning of education and learning on people's lives, few main questions were asked. Instead I asked questions with

the aim of encouraging participants to speak freely and at length about issues important to them in the context of revision and examinations. In this way, I was able to follow the line of the students' own narratives and to explore their thoughts, ideas, experiences and feelings about examinations.

Metaphor generally means to refer to or understand 'one kind of thing by means of another, thereby highlighting possible new aspects of a kind' (Kvale and Brinkman, 2009, p48). Although many participants spontaneously used metaphors in describing their experiences, towards the end of each of the phase two interviews, I actively encouraged the use of metaphor by inviting participants to imagine dyslexia as a picture in their mind and asking them to describe it. In doing so, I was mindful of Burden's (2005) successful use of this strategy as a means of stimulating participants to talk about dyslexia.

As previously mentioned, I was interested in participant's use of metaphor as a way of 'revealing the deeper roots of people's ways of looking at the world' (Burden, 2005, p43). I was also mindful of Eisner's (1991, p227) premise that 'metaphoric precision is the central vehicle for revealing the qualitative aspects of life' and Janesick's (2003, p47) opinion that metaphor 'surprises you' and defies the 'one-size-fits-all approach to a topic'. From the social constructionist perspective meaning is constructed rather than directly perceived. I anticipated that encouraging participants to describe one concept in terms of another might give insight into aspects of their reality that might not be possible in other ways.

Although, as discussed earlier, questionnaires did not appear to be an appropriate research tool, I decided to use them in a very limited form. Alongside carrying out the phase two interviews I decided to contact each of the participants who had taken part in phase one to ask some additional questions including their retrospective views about their experience of dyslexia and examinations. Most of the ten participants had graduated and at least two were living abroad which limited my means of contact. Using their last known addresses, I contacted phase one participants by letter inviting them to answer some open questions (see Appendix 8). I received very full replies from three phase one participants (see Appendix 9), one of whom also followed up with additional information by email.

With the permission of the participants I recorded all phase one and phase two interviews. Without exception the participants were very comfortable being recorded. Digital recorders are frequently used by dyslexic students and participants were therefore familiar with and accustomed to recording and being recorded.

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My decision to record interviews was influenced by a number of considerations. I was mindful of Hurst's (1996, p132) call to 'let the students speak for themselves' and his advice that the views of disabled students should be 'reported verbatim alongside any analysis and discussion arising from them' (p133).

I was also influenced by Patton's observation that:

> No matter what style of interviewing you use and no matter how carefully you word the questions, it all comes to naught if you fail to capture the actual words of the person being interviewed. The raw data of interviews are the actual quotations spoken by the interviewees. Nothing can substitute for these data: the actual things said by real people. That's the prize sought by the qualitative inquirer. (Patton, 2002, p380)

Recording also allowed me to concentrate on the dynamics of the interview and the meaning behind the participants' words – not only *what* was said but also *how* it was said. Moreover, recording also gave me the opportunity to maintain good eye-contact with participants and allowed me to note visual and non-verbal aspects of the interview. Most crucially, I considered that it was only by recording the participants' actual words, their emphasis, their pauses and all their other nuances of speech that I would be able to take an emic approach (discussed later) in analysing and interpreting the data.

Despite the many benefits of digital recordings, they are not without their disadvantages. Kvale (1996, p162) lists a number of practical difficulties. However, my main concern was that participants might feel constrained by the presence of the digital recorder and therefore inhibited in their responses. I was pleased to find that this did not seem to be the case. The digital recorder was silent and unobtrusive; participants appeared to be very quickly at ease as most were very familiar with digital recorders in their everyday lives.

I began by transcribing the audio recordings of the interviews myself as I believed that this would provide close immersion in the data and aid my analysis. However, I am not a touch typist and it rapidly became apparent that personally transcribing each interview was an impractical and frustrating task. I therefore engaged a professional audio typist to carry out the majority of the transcription. Each interview was transcribed as soon after it was carried out as possible Following the advice of Poland (2001), I repeatedly listened to the audio recordings, both at full speed and reduced speed, to tease out any partially audible words and to ensure accuracy of the transcript. Although in this way all interviews were transcribed verbatim including all hesitations and repetitions, I recognise that transcription is in itself a form of interpretation and as it is a 'translation from one set of

rule systems (oral and interpersonal) to another very remote rule system (written language)' (Cohen et al., 2000, p281). Indeed, Kvale (1996, p167) warns that transcripts are of necessity 'decontextualised conversations' and context is important to interpretation. I endeavoured to overcome these potential shortcomings by transferring the digital audio recordings to my computer. This allowed me to return repeatedly to each participant's voice, to note the inflections, hesitations, tone and emphasis. I believe that, alongside fieldnotes, the transcripts and recordings helped me remain connected with the nuance and intended meaning behind the participants' words.

## Rigour

Rigour in educational research has traditionally centred on questions of validity, reliability and objectivity. However, whilst there is broad consensus about the meaning of such terms within the logical-positivist paradigm, there is much debate about the appropriateness of their use in qualitative inquiry. Central to the debate is the notion that it is either possible or desirable to judge validity in qualitative inquiry by the same positivist assumptions that underpin validity in quantitative and experimental research (Maxwell, 2002).

The criteria employed to assess rigour in the 'conventional scientific paradigm' include: internal validity – the 'truth value of the inquiry or evaluation'; its reliability or replicability; its generalisability or external validity; its objectivity or neutrality (Lincoln and Guba, 1986, p74). However, such criteria are firmly rooted within the ontological and epistemological framework of the positivist paradigm which assumes that there is 'one single tangible reality' (Lincoln and Guba, 1985, p28). Such criteria are neither congruent with my philosophical perspective nor with the epistemological and ontological underpinnings of my research.

Lincoln and Guba (1985; 1986) suggest that rather than rigour, research should be judged by its trustworthiness or authenticity; this notion of validity centres on criteria such as credibility and dependability - concepts which sit much more comfortably with qualitative inquiry. These terms, their alternative criteria and their application to my research are discussed below.

From the quantitative perspective validity is generally taken to mean that 'a particular instrument in fact measures what it purports to measure' (Cohen et al., 2000, p105). It is often regarded as synonymous with truth (Hammersley, 1990, p57) and aligns happily with the positivistic approach that mimics the methods of natural science and which takes it as axiomatic that there exists one universal 'knowable' truth. It is not possible,

however, to reconcile such notions of 'truth' with relativist ontology. Indeed, it is not appropriate to measure the validity of qualitative research by criteria used to judge research with very different theoretical and philosophical underpinnings (Patton, 2002).

Social constructionism is based on the premise that the reality people experience is a constructed reality based on their subjective interpretations of experiences. From this perspective validity depends on the trustworthiness of the findings: whether they are 'really about what they appear to be about' (Patton, 2002, p93). In the present study, I was the 'research instrument'; trustworthiness concerned establishing that my findings reflected accurately the perspectives of the participants – that I had understood, interpreted and represented their behaviours, experiences and motivations accurately. As Merriam observes:

> In this type of research [qualitative] it is important to understand the perspectives of those involved in the phenomenon of interest, to uncover the complexity of human behaviour in a contextual framework, and to present a holistic interpretation of what is happening. (Merriam, 1998, p203)

It was not objective accurate accounts of events and experiences that I was seeking, but the subjective meanings participants attached to those events: their constructions of reality (Polkinghorne, 2007). Validity or credibility therefore rested on ensuring that participants' realities had been understood (Wolcott, 1990) and represented accurately.

Reliability is concerned with the replicability of research. Positivistic measures of reliability often depend upon the standardisation of research tools; they assume that there is one single reality which is static over time and therefore 'studying it repeatedly will yield the same results' (Merriam, 1998, p205). The positivistic view of reliability is inconsistent with the relativist ontology. Indeed, Lincoln and Guba (1985, p288) suggest that the term 'dependability' is more appropriate in qualitative research. Rather than being concerned with replicability and 'whether the findings will be found again', dependability is concerned with 'whether the results are consistent with the data collected' (Merriam, 1998, p206, original emphasis).

In considering the credibility and dependability of my research I was mindful of Patton's advice that social constructionism:

- places an emphasis on capturing and honouring multiple perspectives
- attends to the ways in which language as a social and construction shapes, structures and may distort understandings

- takes account of how methods determine findings
- involves thinking about the relationship between the researcher and the participants, especially the effects of inequitable power relationships - and how that relationship may affect findings. (adapted from Patton, 2002, p102-103)

In addressing questions of trustworthiness I endeavoured to ensure that these considerations permeated the entire process of my research (Kvale and Brinkman, 2009). I was aware of Seidman's (1998, p20) premise that it is not 'formulaic approaches' which are important but rather 'a respect for the issues' underpinning trustworthiness. In order to enhance the trustworthiness and authenticity of my work I have made transparent my philosophical position as well as the ontological and epistemological assumptions I have made and the reasoning behind decisions I have taken. I have also sought transparency in my research design, the research procedure as well as my analysis of the data.

In an endeavour to ensure that I could represent as accurately as possible the perspectives of the participants I put in place a number of additional procedural strategies including rapport building, checking for ambiguity and misunderstanding, opportunities for participants to ask questions and add information. Moreover, I sent transcripts to participants so that they could make changes if they wished and I made fieldnotes immediately after each interview. Phase one interviews were loosely structured around a framework to ensure that topics relevant to the research questions were all touched upon. After reflecting on this approach, I adopted a different strategy for phase two to address the affective elements of my study in greater depth. Phase two interviews were participant-led; topics were initiated and stimulated by photographs taken by participants. Photographs helped to avoid 'researcher misinterpretation' (Hurworth, 2003, p3). In phase two photographs were used to encourage participant-led conversational interviews.

 As advised by Patton (2002), I kept a research journal to monitor my own thoughts and ideas and to reflect on and learn from each interview. Reflexivity is 'an awareness of the ways in which the researcher as an individual with a particular social identity and background has an impact on the research process' (Robson, 2002, p172). It is not possible to eliminate the effects of experience and background but it is possible to be aware of them and understand their effects (Ahern, 1999). As Frank (1997) reminds us, I am inevitably a part of the social world I am studying. As discussed previously, 'there is no value-free or bias-free design' (Janesick, 1994, p12). Reflexivity in the present study therefore involved being aware of my own predilections and taken-for-granted beliefs, assumptions and values and how they might affect not only the questions I asked but also the way in which I interpreted the answers. My personal characteristics inevitably influenced my perspective. I am a dyslexia tutor and assessor in HE and two of my four

children are dyslexic. Indeed, I am aware in my everyday interaction with dyslexic students on the university campus, that I am influenced by experiences with my own dyslexic children. It is not possible for me to step outside my own experiences. Nevertheless, I strove to be objective about my subjectivity (Kvale and Brinkman, 2009, p242) and endeavoured to be both reflexive and transparent.

Generalisability (or external validity) is commonly recognised as the ability to extend and apply the findings of one enquiry to others 'outside the specifics of the situation studied' (Robson, 2002, p93). However, as with many notions in research, the concept of generalisability depends to a large extent upon the perceptual stance of the researcher. At one extreme lies the concept of generalisability traditionally used in positivistic, quantitative or scientific research and proposed by Karl Popper under his 'principle of falsifiability' in which a theory or hypothesis can hold as a generalisation only if it can resist all attempts at refutation (Crease, 2002, p15). However, such nomic generalisations must be both 'enduring' and 'context-free' (Lincoln and Guba, 1985, p10) and depend on choosing a large representative sample (Seale, 1999); they were therefore not appropriate to the present context-laden study exploring the experiences of dyslexic students.

Whilst quantitative data, by eliminating variables and the effect of context, might allow 'statistically meaningful' generalisation, such data may not be applicable to any specific individual because 'outcomes can be properly applied only in other similarly truncated or contextually stripped situations' (Guba and Lincoln, 1994, p106). In contrast, qualitative data is able to provide contextual information that might 'greatly alter findings' (Guba and Lincoln, 1994, p106). Indeed, qualitative research, by its very nature is context-laden and precludes the selection of a statistically representative sample; its strength is in providing rich description and context.

That is not to say, however, that qualitative inquiry does not allow some form of generalisation. Indeed, rather than abandoning generalisability in qualitative research, it may be that it is the 'basis of generalisability' which should itself change (Adelman et al., 1980, p50). Rather than nomic or statistical generalisation terms such as 'fuzzy generalisation' (Bassey, 1999) or 'naturalistic generalisation' (Stake, 2000) are sometimes used as a qualitative measure. Fuzzy generalisation is context-dependent; it 'arises from studies of singularities and typically claims that *it is possible*, or likely, or *unlikely that* what was found in the singularity will be found in similar situations elsewhere' (Bassey, 1999, p12).

However, rather than employing the term 'generalisability' or modifications of it, with its implied positivistic assumptions, I subscribe to the view that alternative terminology is

more suitable and prefer the term 'transferability' (Guba and Lincoln, 1989, p241). Quantitative approaches maintain theoretical rigour by eliminating variables and the effect of context. In contrast, transferability is dependent on the congruence of two contexts (Lincoln and Guba, 2000). Therefore, in order to make judgements about the transferability of findings, contextual information or 'thick description' must be provided since the 'burden of proof for claimed transferability is on the receiver', unlike generalisability where the 'burden of proof … is on the inquirer' (Guba and Lincoln, 1989, p241). Positivistic notions of generalisability or hypothesis testing were not my aim. By giving rich description and contextual information alongside each participant's own narrative, transferability of my findings may be possible.

## Data analysis and interpretation

In the main my approach to data analysis was influenced by the inductive thematic analysis procedure described by Braun and Clarke (2006), Patton (2002) and Seidman (2006) although I also drew on elements of life-story and life-history research (e.g. Antikainen et al., 1996, Smith and Sparkes, 2008). According to Braun and Clarke (2006, p78), thematic analysis is 'a foundational method for qualitative analysis'; it is compatible with the constructionist paradigm and has the advantage of providing a means of identifying and analysing patterns in data such that a rich, detailed account, grounded in the data can be given. Rather than fitting data into a pre-existing frame, inductive thematic analysis is data driven (Braun and Clarke, 2006). Furthermore, although thematic analysis shares some similarities with grounded theory, it does not involve 'fracturing' (Strauss, 1987, p29) the data or taking 'segments of data apart' (Charmaz, 2006, p45) but allows individual stories to be kept intact (Reissman, 2008). Thematic analysis was therefore consistent with my epistemological stance and my research aims.

I have endeavoured to ground my analysis in the data and, as far as possible, have used the participants' own words in framing my interpretation. Braun and Clarke (2006, p84) suggest that themes within data may identified in two different ways: the semantic level where themes are taken at the explicit or surface level with little analysis beyond this; the latent or interpretive level which goes beyond the semantic content of the data and involves examining the underlying conceptualisations which may be 'shaping or informing the semantic content of the data'. These different approaches are also referred to by Boyatzis (1998, p16) as 'manifest-content analysis' and 'latent-content analysis'. I have taken the latter approach which I believe sits most comfortably with the constructionist paradigm.

I am aware that my interpretation is in itself a construction. I do not come to the study as a *tabula rasa*; I am not 'intellectually empty-handed' (Geertz, 2003, p166) but am inevitably sensitised to a range of concepts not only from my review of the literature but also as the mother of dyslexic children and from my work as a dyslexia assessor and tutor. My view of the world is inescapably influenced by my experiences, and my interpretation by my 'theoretical sensitivity' (Strauss and Corbin, 1990, p41). I therefore heeded Patton's (2002, p454) advice that a good place to begin inductive analysis is to look for indigenous categories or terms that the participants use themselves to make sense of their world. Drawing on the work of enthnosemanticist Kenneth Pike (1954), who first coined the terms, Patton (2002, p454 and p267) describes this as the emic approach as the perspective is taken from the participants' point of view as opposed to the *etic* approach where categories are imposed from the researcher's perspective. The *emic* approach is also referred to by Spencer et al. (2003, p203) as 'in vivo coding'. Analysis involves interpretation; I hope that by using the participants' own words my interpretation will reflect their meaning. I recognise that in the interviews I am co-constructing reality with the participants and that my analysis and interpretation represents yet another layer on their interpretation of reality.

Participants talked about their revision strategies and they talked about their feelings concerning examinations and dyslexia. Although strategies and feelings were frequently intertwined within the interviews, I decided that some delineation between the two might be a fruitful means of beginning to make sense of the data.

Seidman (1998, p119) suggests that 'crafting a profile' of participants is a compelling way of making sense of interview data. All participants in my study had vivid and, in many cases, very moving stories to tell about the impact of dyslexia on their educational experiences. I decided that crafting a profile of each participant, as far as possible in their own words, would be a way of presenting each participant in context, sharing the data in a coherent and meaningful way and bringing the participants to life.

In the main the individual participant profiles have focused on the more affective elements of the study. My aim was to present crucial background information and to set each participant in context. As Mishler (1979, p2) reminds us, knowledge of the context is crucial to understanding and interpretation since 'human action and experience are context dependent and can only be understood within their contexts'; meaning is inevitably 'contextually grounded' (Mishler, 1991, p117). I present the participant profiles in the following chapter.

**Crafting participant profiles**

Each participant profile was crafted by moving back and forth between the interview transcripts, the audio recordings and my writing. Returning repeatedly to the audio recordings was crucially important as it allowed me to capture the sighs, the pauses, the laughter and the emphasis behind each participant's words.

Although I used NVivo8 computer software to assist my analysis, at the point of crafting the individual participant profiles I worked with paper copies of transcripts only. As Richards reminds us:

> Qualitative research requires an in-out process: researchers have to achieve and manage both ways of zooming in and ways of achieving a wide-angle view. (Richards, 1998, p324)

Whilst it is easy for software to aid the zooming in to the detail of a paragraph and source of a quote, it is much harder for it to assist in the challenge of drawing back and gaining the distance that is crucial for analysis (Richards, 1998, Gilbert, 2002). In practice, I found that using a paper copy of each transcript (which became increasingly annotated) alongside an audio recording of each interview helped me to both zoom in to specific detail and also to maintain an overall picture of each participant and achieve a wide-angle view across the entire corpus of data. A tactile transcript and familiarity with each participant's voice gave me the vital access-closeness and knowledge-closeness to the data that I sought whilst also simultaneously allowing me the distance I needed for analysis and interpretation. Moving repeatedly between the transcript and the audio recording I worked on each participant individually. I marked and labelled passages of interest in the transcript and then drew together passages that corresponded or connected with each other in order to present each participant's profile as a coherent whole.

In crafting the profiles, in the main, I have reproduced each participant's own words verbatim without correcting grammar or syntax unless it has been necessary to maintain the sense. In many cases participants returned to topics at various stages in the interview; although material is not always presented in the order that it occurred in the interview, I have remained as faithful to the context as possible. When it has been necessary to add words of my own, in order to make sense of the narrative or to introduce a new section, I have made this clear by using brackets for my own words and by giving explanatory sub-headings in bold. Using the participant's own words sometimes means that phrases are repeated several times. I have been reluctant to let material go, as I believe that it is often

the repetitive nature of comments that provides the most complete picture and allows the 'thick description' (Geertz, 2003) that is crucial to interpretation.

**Thematic connections**

At the same time as crafting a profile of each participant I drew up a matrix as a way of organising and sorting background information and data in an accessible visual format. I used codes or categories as 'organising tools' (Dey, 1993, p40) to help me sort the data in a meaningful way. In the main I followed the data-driven open coding process described by Strauss and Corbin (1998, p223) which involved repeated listening to the digital audio recordings combined with reflective reading of the interview transcripts and constant referral to the entire corpus of data. In this way, I identified and labelled interesting sections of text and assigned codes so that I was able to group together coded extracts underpinned by the same theoretical or descriptive idea. Repeatedly returning to the audio recordings was crucially important as it allowed me to take account of the participants' tone of voice, their pauses and their hesitations and thus avoid the 'Cinderella's slipper syndrome' (Sikes, 2006, p46) where the data is sliced to make it fit a pre-determined theory. Codes were an interpretation of the participants' thoughts and the feelings behind their words and were often analytical rather than descriptive; coding was therefore an integral part of analysis (Gibbs, 2007, Miles and Huberman, 1994). I used paper-based copies of the transcripts during the initial coding as this allowed greatest flexibility and creativity but as categories and themes became more refined I moved to some electronic coding on NVivo8, alongside the paper-based transcripts, as this presented the most efficient way of retrieving text as well as recording code definitions and ensuring that the codes were applied consistently. In the main, however, I relied on the audio recordings combined with coding on the paper transcripts as this provided ease of access yet also allowed me to maintain an overview of the context and the distance that was required for analysis.

By constantly returning to the entire corpus of data I was able to code data, collate the coded extracts, identify themes and draw up a thematic map (see Appendix 10). Many individual extracts were coded under several themes. As mentioned previously, participants talked about their feelings and they talked about their strategies. In exploring the strategy element of participants' talk I looked for patterns within individual transcripts, across transcripts and across the entire data corpus.

## Summary

In this chapter I have described my philosophical stance and the interpretive framework which underpins my research. My research aims and the research questions lent themselves to a qualitative approach. Within this paradigm I adopted a relativist ontology, a subjectivist epistemology and a naturalistic, idiographic methodology. I have set out the rationale for these choices as well as the associated assumptions. I have also described my research design, including the appropriateness of purposive sampling and my decision to use semi-structured interviews, conversational interviews and participant-generated photographs. In addition I have discussed issues of trustworthiness and the ways in which I have addressed ethical dimensions of my research. Finally, I have set out my strategies for data analysis and rationale underpinning my choice. In the next chapter I introduce the participants and their stories.

# Chapter Four: The participants and their stories

## Introduction

In this chapter I introduce the participants and their stories. Stories 'present an inner reality to the outside world' (Lieblich et al 1988, p7); we story our lives (Bruner, 2004) and become the stories we tell (Denzin, 1989). I decided that 'crafting a profile' (Seidman, 2006, p199) of each participant, as far as possible in their own words, would be a way of sharing the data in a coherent and meaningful way and, most crucially, it would bring the participants to life and also provide important background and contextual detail which is essential for transferability of my findings. My aim was to search for understanding and explanation within context: to provide an insight into the lived experience of dyslexia in HE - students' feelings about examinations as well as their revision strategies and the influences on the development of those strategies. The participants talked about their strategies and they talked about the impact of dyslexia on their academic lives; in the main, the focus of their stories, and the profiles I have crafted from their stories, is on the latter. The participants' stories provide some of the context behind the influences on the development of their strategies. In crafting the profiles I was mindful of Seidman's premise that:

> The story is both the participant's and the interviewer's. It is in the participant's words but it is crafted by the interviewer from what the participant has said ... What others can learn from reading a profile of a participant is as diverse as the participants we interview, the profiles we craft and organise, and the readers who read them. I have found crafting profiles, however, to be a way to find and display coherence in the constitutive events of a participant's experience, to share the coherence the participant has expressed, and to link the individual's experience to the social and organisational context within which he or she operates. (Seidman, 2006, p120)

The participants described their revision strategies in detail; however, as I described in Chapter Three, in the main I have focused the profiles on the more affective elements of my study. I present six of the participant profiles in this chapter to bring the findings to life (Henry, Sharon, Tim, Fiona, Eve and Keith); for the sake of brevity I present the remaining profiles in Appendix 11 (John, Ned, Bridget, Eric, Cindy, Seb, Max and Tracy). I also provide some exploration of the predominant themes emerging from the

participants' stories at the end of this chapter. To help locate the participants' experiences within their learning environment, I begin by providing some contextualising information about the HEI.

**Contextual background of the HEI**

The HEI is a pre-1992 research-intensive Russell Group campus-based university located on the outskirts of a large multi-cultural city in the south of England. It typically demands high UCAS points for entry and one of its strategic aims is 'to be a world-leading research university clearly ranked top 10 in the UK' (University Strategy for 2010-12 document). It has over 22,000 students (56% female; 44% male) including over 17,000 undergraduates and 5,700 postgraduates and comprises 32 Academic Units within eight Faculties offering a wide range of programmes of study including medicine, nursing, law, engineering, sciences, humanities and modern languages. The university polices declare a commitment to inclusive practice; the university 'values, understands and welcomes diversity' (Equality Plan for 2010-13, document) and is described by the Vice-Chancellor as 'a place of transformation … it unlocks creative potential and provides opportunities that transform the lives of our students' (University Strategy for 2010-12, foreword). Most significantly the HEI has appointed a Diversity Champion, who is also Dean of one of the larger faculties, and shows a commitment to cultural change by highlighting that equality and diversity are 'core to the University and integral to everything we do' and are 'about more than just policies and procedures' (University Equality Plan 2010-13). In recent years the HEI has grown and developed its support services and now employs seven dyslexia specialists (4.6 full time equivalent) and has approximately 2000 students registered with the support services – of whom over 1000 have declared dyslexia as underpinning their need for support. The majority of dyslexic students are in receipt of the DSA; those who are eligible but are not in receipt are supported by the university in the DSA application process.

The university produces an Assessment Framework (updated in January 2013) within its Quality Handbook which serves to provide academics and students with detailed information about policy and practice. The Assessment Framework recognises that unseen, timed assessments 'are very common' but warns that they can produce 'superficial responses' and 'may encourage rote learning'. Reflecting current research indicating that dialogue between students and collaborative tasks are beneficial to learning (Falchikov, 2007), it suggests that assessment should be integral to the curriculum and outlines a range of assessment modes including viva voces, group work, projects, performances, projects and laboratory work recommending that there should be a 'balance' of 'formative and summative so as to provide meaningful feedback'.

Importantly, from the perspective of my study, it indicates that 'students … react differently to forms of assessment. It is therefore important to ensure an appropriate degree of variety in assessment so that the level of disadvantage which may result from a narrow range of assessments is limited'.

Although the Assessment Framework suggests a range of assessment modes, most Academic Units within the HEI set a high proportion of formal timed examinations alongside a smaller proportion of coursework assignments. However, students studying art and fashion-based courses are assessed entirely by coursework (including presentations and reflective journals) and a wider range of assessment modes (including essays, presentations, objective structured clinical examinations and simulated practice in the skills lab) is employed by faculties teaching vocational courses such as nursing.

The university calendar is divided into two semesters with formal examinations taken at the end of each semester for most (although not all) faculties. At the end of Semester 1 2012, 14271 students sat formal timed examinations, an increase of 5% on Semester 1 2011 and an increase of 13% on Semester 1 2010 (exams office, internal document). The number of students provided with special arrangements in formal timed exams increased by 13% from 682 in Semester 1 2011 to 770 in Semester 1 2012 and to 1002 in Semester 2 2012 (exams office, internal document). The number of formal exam instances (actual exams taken in total) increased by 8% from 39165 in Semester 1 2011 to 42251 in Semester 1 2012 (exams office, internal document). These statistics indicate an increase in the number of formal examinations year on year and a similar increase in the number of students requiring special arrangements or reasonable adjustments.

The HEI provides a guide for Reasonable Adjustments recognising that:

> As we widen participation and respond to changing demographics, understanding and providing reasonable adjustments will underpin our ability to remain a top university with high aspirations for the future. (Disability Champion, Reasonable Adjustment Guide)

All participants in my study were allowed the university standard special arrangements for exams: 25% extra time; a separate room with other students receiving extra time; answer papers labelled with a coloured sticker so that in anonymous marking the marker would be aware of the student's dyslexic difficulties

# Participant profiles

All participants, except Cindy, were re-assessed after the age of 16 (or assessed after 16 for the first time) to enable them to apply for the DSA. In introducing each participant I mention only exam arrangements which are additional to the standard special arrangements mentioned above.

All quotations in the profiles are taken from the participant interviews except where I have indicated otherwise. In crafting the profiles, as far as possible, I have given the participants' words verbatim; when it has been necessary to add my own words to maintain the sense, I have made this clear by placing them in brackets or in bold as a new section heading. I begin each profile with a short introduction.

**Henry**

Henry is a 22-year-old final year Politics student. I found him to be an affable, cheerful and confident young man with an easy manner and a good sense of humour. He arrived exactly on time and remarked that it is important to him that he is always punctual.

Henry was assessed as a child and found to be dyslexic and subsequently given specialist support throughout primary and secondary school. He was allowed to use a word processor for both schoolwork and examinations. According to the educational psychologist, Henry's working memory is weak, he continues to experience difficulty with reading and spelling and he is unable to write legibly at speed. In university examinations he is allowed the use of a word processor in addition to the standard additional exam arrangements.

Henry applied to university to read Politics and Sociology; however, although Sociology was his favourite subject he discontinued it after the second year as he felt that his weak literacy skills meant that his written work was not representative of his conceptual understanding of the subject.

As Henry is in his final year, he is concerned about his future career. He applied to join the navy but was unable to pass the entry examinations; Henry put his failure down to dyslexia. There was a note of resigned disappointment in Henry's voice when he spoke of his rejection; he explained that 'they can't give you extra time in a war, so I didn't have extra time for the tests'. Henry has also applied for a number of internships but again has been rejected. He feels that spelling errors, poor grammar and sentence structure in his applications may have been the cause.

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Henry was interviewed in phase two of the study and therefore took photographs prior to the interview. He collected the camera in March 2011 and returned it immediately after sitting exams in May/June. The interview took place after Henry's final examinations but before he knew the result. He was clearly anxious that he had not performed well enough to achieve the coveted 2:1. Henry remarked that he really enjoyed taking the photographs; it made him analyse what he did and think about what was important to him when revising. He emailed me a few weeks after the interview to let me know that he was thrilled that he had been awarded a 2:1 degree. The transcript of my interview with Henry is given in its entirety in Appendix 12.

**Henry: a profile in his own words**

I knew when I was very young that I was dyslexic. Well, my mum is dyslexic and my grandmother's dyslexic so we kind of knew that I was. She [mother] always told me she'd get blackboard rubbers thrown at her and stuff because she knew she was smart but they just thought she was ridiculous. They assessed me and said "oh yeah - dyslexic". I remember my mother said "you're going to be a dustbin cleaner probably" and I was like - "Oh, good stuff", but I'm here now. I kind of laughed in a way. I thought, "yeah maybe, we'll see what happens, yeah". She tells me now "Oh you probably won't be able to do certain jobs because of your dyslexia"... I believe that, but yeah, nothing against her, she's always said she's like proud of me and everything; she's just like, "you can't write" kind of thing. I guess it kind of pushes you.

My reading was awful, my spelling was disastrous, and still is; it's a bit out there. It was difficult. I wasn't very good at class. It was frustrating. I remember when before I got help and stuff I was quite frustrated and I'd act out, I was a little bit pushy - like misbehave. I wouldn't say that I was stupid or something, that's completely not true. I think it was, like, I had intelligence but I just couldn't put it into words. I wasn't jealous of anyone at all, I wasn't upset, I was quite content but I just kept going on really.

I was put in GCSE foundation, stuck in there, you know, you can't spell. It's not their fault; it's just how it is. I can't see that was fair but when I did orals, I'd always get As and Bs but when it was coursework it would be Cs and Ds. I think that shows you do need to write because it is important but it shouldn't be the fundamental factor. I had to do French; that was absolutely awful. Rather than actually writing the words, because that was impossible, I'd just draw a picture. I got an E in French. That kind of suggests that I wasn't very good at all. I was kind of disappointed when I found out how much languages are important … it was a bit of a disaster.

I remember at primary I was absolutely brilliant at science so when someone actually helped or put effort into me, I would do very well. Like with history in secondary school, my teacher was dyslexic and he pushed me and I was just like top of my class and the same with sociology in A level ... it does help.

You're intelligent but you're frustrated. That's dyslexia.

**In HE**

I actually have a recorder but I'm a little bit proud, I guess. I don't like to go in the front row and turn it on. I like to sit in the back, just in my own little space. I feel a little bit like - "oh what's he doing? He's being, you know, he's different or he's special or something like that" - I know it's not a very good term - not PC. I know it sounds ridiculous, but it's just literally I don't like people to think "oh what's he doing" - that looks stupid or something. I just like to think I'm on a par with my peers by writing something down or listening rather than just doing that [recording the lecture]. I know it sounds really ridiculous. I like to work with my peers rather than in a different way. I don't, for example use the technology centre in the library either. I always feel I like to earn what I get rather than have an advantage even though I have dyslexia - that could be a disadvantage. I'd rather earn something. I feel more proud.

I don't [tell my friends I'm dyslexic]. One or two, but not many - don't ask, don't tell kind of thing really. Sometimes they say "oh my God you're ridiculous, you can't write anything". I just say "Well I'm dyslexic you know" - what can I do? If they don't say anything then I don't tell them. I don't see - what would be the point? I honestly think it's fine [the term dyslexia]. I think a lot of people have it but then I feel a lot of people don't really understand it or they just think it's ridiculous. I hear a lot of people in government who just think it's fake. It's just really annoying. I remember with work environments, I would never tell anyone I was dyslexic. I think a lot of people don't really see it as a real disability. I think a lot of dyslexics are intelligent and you can see that. A lot of people do achieve. A lot of people don't see it that way but I think if you give a dyslexic a chance and they're intelligent they can do very well in whatever they do. I know one or two people who are dyslexic themselves and I think they've done really well. They've gone on to university and they're pushing hard. I think, it's literally - just give them a chance.

I could earn a good first [class degree] if I wasn't [dyslexic]. With my coursework they always knock me down and say you can't do grammar or you can't do spelling or your formatting's wrong - 2:2. I think that's not fair really. I think my intelligence is a 2:1 to

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first level because when I'm speaking against my peers I'm like "come on guys". But I'm always knocked down and that's just going to affect me in my working life as well because they're going to go "Oh look he's an idiot, he can't do this" - and it's just annoying. My written work, I'm freely going to say, is awful but my speech and oral - that's what I'm best at because I can actually share my ideas. But yeah - that kind of limits you in anything. I feel a little bit betrayed.

I feel betrayed because I think the educational system should give you every chance you've got and if you can do it and I feel I haven't been given that chance. Orally I'd get a different grade. I'd be on a high 2:1 in my opinion but I'm not. I'm on a borderline 2:2, 2:1. I feel I've been stabbed in the back because of my spelling and grammar when it shouldn't be on that. It should be on your understanding. They don't take account of that. It's just "Oh, can you spell?" I think it's very archaic and it shouldn't be that way, especially not today but I think it will take a long time until they understand that.

If you always get bad grades and not good - something like "well done" - or you're getting back your results, it's like "Oh you spelt it wrong, ha, ha sucks to you!", then you think "ridiculous"; you become disenchanted with your degree. In my first year, I spelt taxes as taxis and he [the lecturer] put a little joke at the bottom. I thought "OK", but you can't put out there you're dyslexic. Supposedly Word can fix it but let me tell you, from the job rejections I get, it doesn't fix every single word. It's very annoying but, you know, once again that's life. I deal with it.

I got rid of, I cut off sociology because I was constantly put at 2:2 because spelling and grammar was an absolute problem; anything to get a 2:1. So I had to cut it off. I enjoyed sociology but I became disenchanted with it. Feedback was rubbish; the grades weren't good with the time I put in. It's a long process and if you're not getting the rewards - why? It's always nice to get maybe a 2:1 and "oh this is good and here's how to improve" rather than "this is wrong, this is wrong, this is wrong, rubbish, rubbish, do your grammar". Sometimes I'd get some good comments. I remember one thing I got a first in and it was like, really good stuff, so I had a little feedback how to do better. Oh that's brilliant, and that kind of pushed me to go on - that was on the politics side.

I'm always praying for a fair grade but it's normally disappointing. A brilliant surprise when I do well and if I ever get a high 2:1 or a first I'm going to dance then. Yeah, dance in the room I think! I feel pretty proud because it's a surprise. It's an absolute surprise when I get a good grade because I'm normally used to getting 2:2s. So that's nice. I feel quite happy. It kind of motivates you to work a bit harder and continue the cycle.

I think from seeing people who I work with, they could go through articles quicker, they could go through books quicker and they can get more information. I don't know if they remember it or understand it themselves, who is to say, but with me, yeah, I think it just takes me longer. They can go throughout the year and read booklets and stuff and I'm just like - "Oh I can't do it". I wouldn't say I'm quite jealous or hold a grudge against them, that's just life. But it's a little bit annoying. I've got to do double the work because I've got my dyslexia and stuff, so I've got to constantly push.

You know you're not stupid but you know that you'll never get the highest grade and you … have to be satisfied with an average grade. It's an absolute knock back especially when you see people getting massive 80, 90% - and why? I feel I did the wrong subjects. I should never have gone into humanities. I thought it wouldn't be too much of a problem. I thought because my strongest subjects were in the social sciences and I absolutely love it. If it was a different system, if maybe it was marked differently, I'd completely do it again but if not, I may have gone into a completely different subject - more science. I would have got a better grade. I know it's sad to say but definitely true. If I went into pure science, it's much more about knowledge and less massive documents and typed pages. I think social sciences are much more anti-dyslexia rather than pure sciences. I think that's why you find more dyslexics in those areas.

This is my revision beard … this means I've started revision because it grows long and long and long. But it's not just for show - it's, kind of, I think, to say "Oh, I've been revising"; it's all that I care about, everything else kind of goes to the side … everything. I do have showers, just put that out there, but, yeah, normal things - I don't really care what I wear; I don't really care about general things. It's just constant work … constant dedicated work. I feel I'm not very happy about it. It [dyslexia] wastes time for me. It's very annoying. With exams you need to be time efficient. I didn't like having to go over one area in half a day when my friend next to me has done, like, five areas in the same amount of time. It can become frustrating but I've accepted it. It's what happens. It's a part of life. You can't change it so just keep on going, that's how I feel.

I feel, I guess, it's like you're not rewarded for the time you put in at the end of the day. I might come out with a high 2:2 and they [peers] come out with 67% or 68%. I wouldn't say I'm quite jealous or hold a grudge against them, that's just life but it's a little bit annoying. That's just how it is - they can write better than me. They can write better; that's all it comes to. I feel with the social sciences, I'm going to put this down here, it's not what you know, it's how you can write and that shouldn't be the case. It should be extremely important, especially in social sciences, to actually know the knowledge. Because I feel quite worried that a lot of students from good universities, a Russell group

university, can go on to a Masters and it's only because they can write very well - but their knowledge is average and it kind of pushes people off that may be very intelligent. I'm not saying myself but for other people who would be very good on a Masters or PhD but they think they're just being pushed out. And statistics speak for themselves. I don't know how many people are dyslexic, like 5 to 6% come to university and then PhD, it's even lower and it's other groups as well. It seems like small groups just get cut out on each education level. Why is it happening? You find as well that there's more dyslexics in lower established universities or less academically brilliant universities. Why is it happening? I would love to go on to a Masters, I think that would be amazing, but I doubt I will. I don't think [I'd] get in anywhere decent. The opportunity would be if I got in, if I had a high enough grade because I think if I end up with a 2:2, all doors are closed - same with work

I think it's the assessment practice [that] is not very good. That might sound bitter. I just wish that every single module wasn't coursework and exams. I would choose either small essays, like 100 words or oral examination. I'd completely put oral exams in front because I feel it's important for the workplace. I think it shows a much different thing. It shows people that are weak in that area and it shows that not everyone has the oral skills and that should be celebrated rather than ignored. You need to be able to speak but they don't test it, all they do is exams and coursework. I think that's outdated and it's wrong in my opinion. And I think it does limit a lot of people. I'm at a massive disadvantage because the majority of them just call up their parents and say "Oh can you look over this"; I can't really do that because mine is dyslexic. So it's annoying.

It's disappointing. Once or three or four times I actually think I just wish I never came to university. I think "what's the point?" Because, if you get a 2:2 and you can't spell you're not going to get a decent job. It kind of brings me back - "oh, what am I going to be?" It's an absolute knock-back. Especially when you see some of your peers who just laugh, dance and, you know, do stuff-all. Because, I never usually go out. I normally stay in and just, kind of, do my own thing like revising or reading articles. And they get higher grades than you. It's like, OK that is not a correct system.

I could imagine [dyslexia] as a Greek philosopher; he's a very intelligent person but he has both his hands in a shrugging manner.  You are very smart, very brilliant but then you think you're being held back and you're frustrated, you're a bit annoyed and that's dyslexia. It's like you have the ability but you're kind of stuck. (Henry, phase two interview, 16 June 2011)

**Sharon**

Sharon is a 34-year-old second year medical student. She is a single parent of young children and moved her family to Southampton to take up her present course. I interviewed Sharon at her home, a rented house about a mile from the university campus where she lives with her children who attend the local school. I arrived in the early evening and she was busy preparing a meal for the children and supervising homework. After the children were settled, Sharon and I moved to her 'work space' in the dining area of the sitting/dining room for the interview. Sharon had contacted the dyslexia support services at the university towards the end of the first year of her course as she was experiencing difficulty with examinations and her tutors had expressed concern about her ability to express ideas in writing. She was subsequently assessed and found to be dyslexic.

Sharon is the first member of her family to go to university. She explained that exams were not relevant to her when younger. She was keen on practical tasks, left school at 16 and went to work as a mechanic in a garage. After taking an Access to Science course she was accepted on the six-year course in Medicine. She had little experience of exams and was very shocked when she failed the first semester examinations. However, this experience made her determined to succeed. She described her strategies in some detail and showed me revision notes and techniques she was using. She was unable to hold back the tears when she described receiving the news that she had passed the second semester examinations. She has put on display the letter confirming her place on the second year of the course and intends to add a confirmation letter to the display each year.

**Sharon: a profile in her own words**

I don't ever remember revising for anything. I just remember going to school - it was quite good attendance at school. There was no motivation to revise. My family were never ones for saying sit down and do your homework. I mean, there wasn't a lot of pressure put on academic studying at home … it was very much what you are doing in life is you work your way up - there wasn't an academic thing at home.

My attendance was quite good until, I say, the last six months of school when we went onto work experience. I went to a garage. I started working in a garage and it was not far from where I was and I started working Saturdays for them and then obviously it increased. I studied motor mechanics. What happened is then I found out what I wanted to do and then spent most of my time working … doing bits and pieces, learning about

what I wanted to do. I mean, my drama teacher actually rang me at work when I was at the garage … he rung me up and said "Sharon, you have an exam this afternoon you know"; and I came in for that exam and got a fairly good mark but not through doing any work for it. I wasn't really bothered - it didn't really bother me because it wasn't - they [exams] weren't important for what I wanted to do. I wanted to do day release at college and they weren't relevant. I didn't have to have, you know, the three grade Cs and above to get into where I wanted to go. They weren't really important. No-one really cared. I mean, it is very difficult to tell people - when you're 16 nothing's important. You know to make that massive life-style choice that you're going to do for the rest of your life - very difficult. It's only now that it's an issue.

I did an Access course and I did an Access to Science so that was all coursework, completely coursework. So obviously coming here … I sort of thought along the same patterns: if I put the work in, if I, you know, if I come to each lesson and I don't shirk off … then when the exams hit me, we had a week off and I sat there and thought "Becky what do you do?". So, I just, I read for a bit and that didn't work and I made some flash cards and that didn't really. I had no basis to base revision on. And then obviously the exam came and it was a bit of a shock because I sat in front of the exam papers thinking "I don't know that, I don't know that one, I don't know that". I was sort of like a bit of a rabbit caught in the headlights.

[I felt] devastated, absolutely devastated. When I came out I was so upset because it was my first exam and then I knew I had another two days. So, I was like "Oh my God, this is just horrendous!". Literally, effectively, one strike, one more go and you've had it - so it was like a stay of execution. I remember, it was Valentine's day. I remember the day, I cried all night. I remember thinking I will not have this opportunity to get this away from me until … August. So this is hanging over my head until the next set of exams. I sort of resigned myself to the fact that if I cannot pass this next set then there is no way I think I can carry through two because it's such a big weight to carry. I had moved my children down here, you know. I fully thought I had the ability to do it. I had moved my family down here, you know, against the advice of my mother and you know - a lot of other people saying "you sure you want to do this; you sure this is the right thing to do?"

When I did the re-sits it was the worst feeling ever. It was like, it was almost if I don't know what I'm doing, so I'm not going to bother. It was almost that feeling of, like, when people give up before they've even gone [into the exam] because it was so stressful. But it is the feeling of going in. It's almost "what's the point in doing it?" Because I think it's that scared feeling isn't it? You think "I've failed - if I walk away now then I've taken that decision myself to fail but if I sit and fail then, you know, I'm not good enough". I could've

- if you walk away from the situation that you haven't done, you haven't had that situation. Then you can spend your whole life saying "what if?" But if you actually fail then you are, you weren't good enough, so you have to face that.

My lecturer was absolutely awful. You know, it was a case of "do you think you should be on this course? I'm very disappointed in you". I mean, in fairness, she probably thought you've not done any work, you know, you can't really be bothered. I mean, maybe she thought that was my attitude. But, you know, it was more a case of that I didn't know quite what to do. This is what it was. I mean I was really one mark off ungraded. I walked out and sort of thought, you know, I'm much more capable than this, you know, than the mark that I've got so obviously something's wrong. So I went to the [dyslexia support services to be assessed] because I thought, you know, a lot of people said to me, you know, I knew from other things that I'd done in my life. I have written things and my friends [say] "instead of writing 'pelmets', you're writing 'plinnets'". It used to be like a bit funny.

It sort of made me feel a bit better [when I found I was dyslexic] ... as well as I felt a little bit embarrassed. You know there was a reason. There was going to be a different way of studying. I knew that I couldn't learn something really quickly and then expect to take it into the exam. You know my memory was really poor, that's the main thing that came up. My memory, my short-term working memory was horrendous but my long-term memory was really good. You know, the thing is sometimes it's boredom isn't it. It's all very well reading something fourteen times but if you're not interested in what you're learning anyway you're never gonna go in. Now I have to suffer and now I have to suffer. I think it was definitely different ways to study and making myself do things I wouldn't have usually done. So if ... I sit here every night until 10 o'clock ... and continually turn over my book, then I will get an average grade. It will be a lot of work but I will get an average grade. I will probably put in twice as much time as everybody else but it works. You think to yourself -if I scrap that and do something else and I don't get a good mark then I'm now on the back foot.

Pronouncing things are very difficult for me in class. You know, when I see a word somebody else might pronounce that word differently. So I'm very hesitant about saying something straightaway, like, I'll wait and sit back. I view things completely differently and see things completely differently than other people and, as I said, it's - you become very, I don't know, I think - you could either become quite "oh well, I've got dyslexia and that's fine" and shy away a little bit ... from saying the drug names or speaking out loud in case, you know, I have had this situation where it's been pronounced "no that's not how you

pronounce it" you know, and people sort of look at you, you think "ooooooh" . You feel like, you know, it's ridiculous.

I had a friend in the next year, and she's a single mum. She was fantastic; she was like "right, what don't you get, what don't you understand?" The way she taught it was so, well, you know, like almost a basic level back up to a really high level and we found a lot of animation as well on the internet which was fantastic. I'd just type in 'electron transport chain animation' and see what I could find and seeing it animated made such a massive difference and ummmmmm [long pause] I passed. [I felt] amazing, amazing … it was really good … because everyone went home for the summer and there was a few of us who had to re-sit and I … [cries].

It was so emotional last year because it was just so, you know, you just think, oh you, you know, you're just trying to find out [if you've passed] and it was going home - what was I going to do if I didn't do that? So I saw her [tutor] I emailed her because as soon as I finished the exam you don't find out and I emailed my tutor and I asked her the question about re-sits and she was like "you're very keen" and I was, like, "well you know, I still want to be here". So, she said "you know the tortoise and the hare or something, I was trying to give you a clue to say that you had passed". So, I was like, "Oh thank you". Yeah, you know, it was hard. It was fantastic but again it was a double-edged sword because when she rung me and told me the results after she finished telling me the results "You've passed", she then told me that she didn't think I was good enough to do this year and that I would struggle and, you know, she didn't have any doubts that maybe this wasn't the course for me. It was, you know, "I think you're gonna struggle". It was basically "Oh you didn't get an A and because you didn't get an A you're gonna find it all a bit of a struggle. Maybe you should think this isn't for you".

All the great sparks [other medical students]. I don't see myself as competing with them at all. It's about just getting through each thing. I feel a little bit jealous about the ones that only do two weeks or a week before the exams and they get a fantastic score but, I think, that's just, you know, it's just the way I learn and obviously having the kids. I think at the end of the day, if I didn't have the children and the rest of my life then, you know, there are some that got lower marks than me and have no reason to do that. So I mean, I sort of, you know, cushion off the back of them and think well, if I can get an average grade then and not anything else suffer then I'd be happy to do that. (Sharon, phase one interview, 23 March 2009)

**Tim**

Tim is a 22-year-old final year student of Oceanography and Geography; he hopes to achieve a 2:1. I found him to be relaxed and outgoing intending to spend the summer working behind the bar at music festivals while looking for a more permanent job. He has explored teaching as a career but decided that he would prefer to work for an 'enterprising' company.

Tim's mother and teachers noticed he was experiencing difficulty with reading and spelling as soon as he began formal schooling. He was assessed and dyslexia identified at the age of seven. He was given support throughout his schooling and allowed extra time and the use of a computer in exams. Tim has chosen not to take up tutorial support at university although he has been urged to do so by his mother, a dyslexia specialist herself now.

According to the educational psychologist, Tim's working memory is weak; his reading and writing rate are both slow and spelling is poor. Tim has used a laptop in lessons and a computer in exams since the start of secondary school as his writing is very untidy. He enjoys technology; however, he does not use the digital recorder supplied as part of his DSA because he feels the audio quality is not good. He would like lecturers to put recordings of the lectures on line.

**Tim: a profile in his own words**

I remember going to see him [the educational psychologist]. I even remember his house. I don't remember why I was there. I'm sure my parents must have explained to me why I was going there but I don't remember. We spoke about the tests but that was just because I didn't do particularly well. I was a kid. I remember when my parents were told. I was told to go and sit in some other room and play with some toys. Thinking back now, it's almost like the child is going to *die*. Don't hear this.

It doesn't bother me that I've got dyslexia. [It's] a friend that's just there, that's, you know, you're happy for it to be there, it's just slightly annoying. When I say a friend I mean it's just that person … a normal person. You're in a group of people and there's that person, hey, you're right and just a little bit annoying. I'm sat at one of the best universities, it's not slowed me down or anything like that, you know. [I've] been to some brilliant job interviews. It doesn't bother me. It's not holding me back - I'm here. What could I do if I didn't have dyslexia ? I don't know. It's just slightly annoying. It would be interesting to

know … what bits it holds me back on. I wouldn't say I'm highly intelligent but what bit's my general intelligence and what bits I'm being held back on from my dyslexia.

It was "cover, write, check, there you go". I can't believe I remembered that. That's how I remembered spellings. I just didn't like the fact that I couldn't do it. At one point I began cheating, in year three. I would have been eight. I did it because I was getting rubbish results and I didn't like getting rubbish results in comparison to other people. My parents never pushed me to do to -"why didn't you get that right". I think it must have been the fact that I didn't get it right. I cheated by not writing the things down and then when we were asked to swap the question papers round, I didn't do it and then when the teacher read the words out, I wrote them down. Oh, I hated the spellings. I hated them. *Hate, hate, hate.*

I think the biggest thing was somebody pointing out or telling people that I had it [dyslexia]. I didn't like that. I remember at the very beginning my mum giving me a note to take in. I mean thinking about it now she was completely reasonable to do that, there was nothing wrong with her doing that. I hate the fact that it comes with a label. I know I should but I've never told any of my future employers that I've got dyslexia. I've had a few job interviews and didn't get them but I'm like, that's fine. My mum has always been the one who has tried to make sure that everybody knows - not everybody, I mean everybody who's been teaching me for example knows that I've got dyslexia. If you go to a new school that's sort of like "Hi, I'm Tim, I've got dyslexia". I don't do that but it's almost what you're expected to do. Then you're expected to go out of class. I suppose it mainly came from during my primary school which was years ago. Obviously the kids that the school couldn't handle because of their behaviour were put in the same sort of support group as the people with dyslexia. The only reason I was told to go there was because, I think, I was probably one of only two people in the school who were diagnosed as dyslexic. It was not that well-known back then. So they really didn't know what to do, so they put me in the same support class. I suppose that's why they did it. I went and told my mum when I got home. I was like "Oh Mum, I went to this class" and she went straight down. It was like, there's no way that he's missing out on a decent education and sitting in with these kids who are learning how to spell 'cat'. I was just embarrassed really because nobody likes their mum going and making a fuss. I was embarrassed because I was young. I had to go and sit with the naughty kids.

I do better in coursework; I know that because I get better results.[In exams] you're forced to remember stuff that when 50% of people will walk out of that exam and completely forget it. You're forced to remember it for this small amount of time, blurt it out and that's deciding your exam. That's deciding what result you're getting.

It [assessment mode] came up in conversation in terms of which university I was going to go to. But overall the fact that Southampton was the best for Oceanography and I could get in was very much the top priority. Before the results have come out … I've always been under the assumption that I wasn't going to do particularly well … I mean in comparison to some people here, I had rubbish results but in what I was expecting I got brilliant results.

You've got the intermediate maths for example. I think that's pretty bad that you're going to be capped at a C. You will never be able to get better than a C. My geography teacher wanted to put me in the lower one [tier]. I got along really well with my geography teacher and I ended up almost shouting at them. That's not me at all. Not me at all but I went pretty mad. I felt pretty bad about that in the end … being capped at a C, if I'd done the lower paper. In the end she said "It's up to you". So she put me in the higher paper and I got an A. I was ecstatic, I mean, you know, just because it was my only A. I enjoyed geography.

Annoyed. Primarily [I get annoyed if I fail an exam] because I've put all that work in … I feel I've put the same amount of work in as somebody else who's got 70% and it just doesn't work for me. I put exactly the same amount of work in - it just doesn't work and I come out with a lower grade. I've always done badly in exams. I'll get really stressed. Always. Since SATS, you know. I hate, I mean I really dislike exams, really dislike them. I'll do anything not to. I'll even do a different subject. I've not, I don't *think* I've done it, but I will even do a subject that I didn't want to particularly do to avoid having to do an exam. About 50% of me picking units which I want to do [at university] will depend on their assessment. You got, I'd say you got the three main things: whether I can do it, whether I've got the prerequisites; the mode of assessment; am I interested in it. [Assessment comes higher than prerequisites] because if I picked Oceanography all the units hopefully will be around what I'm interested in so the mode of assessment is pretty big. There was one, there's a geography unit that I picked, River Basin Management, that's 100% coursework. I picked that primarily because it was 100% coursework.

At the beginning of the year I had to pick nine units. I did the Undergraduate Ambassadors Teaching Scheme, which obviously doesn't include an exam because it's very practical. I have to write stuff and do presentations, which is fine. Then I had River Basin Management which was a geography unit that was 100% coursework - and I did pick that 80% because it was 100% coursework. Then I had another unit which was Deep Sea Exploration which was 50% coursework, 50% exam and again I picked that because it's only 50% exam and I knew that I would do badly. I assumed I would do badly in my exam.

I suppose it's something you just have to get used to. It's nothing … you can always work harder but, you know, can you work hard without killing yourself? Again it just pisses me off. I mean it does because you sort of - well why? But I suppose there's nothing you can do about it, I don't feel, otherwise I'd do it. (Tim, phase two interview, 6 June 2011).

**Fiona**

Fiona is a 22-year-old second year student of Philosophy and Politics. She was assessed by an educational psychologist at the age of six, found to be dyslexic and subsequently provided with specialist support throughout primary and secondary school. Fiona was allowed 25% extra time in GCSE and A level examinations. According to the educational psychologist, Fiona's verbal skills and vocabulary knowledge are excellent; her comprehension skills and long term memory for facts and information are at a good level. However, Fiona's working memory is weak, her short-term auditory memory poor and the speed at which she processes information is slow; in addition, her reading and spelling accuracy are relatively weak, her writing speed slow and her reading speed very slow. Fiona has attended regular individual tutorial sessions at the university dyslexia support services.

**Fiona: a profile in her own words**

Well I was six when it first showed up and the teacher got very cross with me. I couldn't get some simple three letter words down in the right order; like 'the' I couldn't figure out if the 'the' was 't' 'e' 'h'. So I'd just go for 50/50 percent chance and just do half of each and vary between the two.

I remember we had this thing where everyone had to say a letter of the alphabet and we'd line up and … I knew I was going to get into trouble as I didn't know any alphabet. Every time I'd line up in the alphabet and I got it wrong every single time and everyone else got it right, that was going to single me out and my teacher's not going to be happy about that and people around me are going to think I'm stupid. So I figured out the first few letters and the last few letters and I'd go and stand either at the beginning or the end so I'd always get one of the letters I knew. So I had six letters I knew and it was just stand in the place where the six letters [would] be read out. I didn't know how to do it. I was just, like, this is kind of ridiculous because I couldn't. No matter *how* hard I tried it didn't seem to make any difference. It was very surreal because everyone else was just like, this is easy you can do this and I was like, it's not working. So I had no idea what was going on and that was before I realised I was dyslexic.

Some people get very upset when they realise they're dyslexic but I was actually quite happy because before that I was just like, what is going on here … I felt very much under pressure. There was a lot of pressure. I felt very confused and obviously very much under attack because I couldn't do the things I was supposed to do and if people find out you can't do the things you are supposed to do they get very upset or they would think I'm stupid. And I didn't want to be labelled stupid because I decided that I didn't think I was stupid. But I didn't know how to be able to argue that I wasn't stupid in like the fact that I couldn't do any of the stuff that I was supposed to be able to do.

So it [dyslexia] was really helpful and it also meant that when I was told off or told I was stupid for not being able to do something, I could go - "well that's not really happening, so I'm dyslexic" and even then I really didn't understand the answer and the people I was talking to probably didn't understand the answer - at least I had something to *say* for myself.

I think the attitude to dyslexia was terrible with a lot of staff members … There's a lot of teachers are so very hostile to dyslexia, very, very hostile. I mean some are nice but a lot of people don't believe in dyslexia and they see it as a personal flaw and they – actually, you get the impression they don't like you because you're an idiot.

I have always felt that exams for me are much more a test of dyslexia management skills than they are a test of my knowledge or understanding of a subject. It's annoying … I'd like to have time to read everything and that would be great … but I think I can do more with less information than my peers.

[I'm] a bit frustrated because I know that it can't be the quality of my ideas that are holding me back in the exam because there is such a gap there. I mean, I must have got something like a 2:2 in that exam but I'd got a first in the coursework, so, I mean, that's not quite right.

[Exams are] unavoidable, I guess; definitely more difficult because I'm dyslexic; completely more difficult because I'm dyslexic. I've just kind of accepted that because it's always been that way. I mean, to be honest, they're less difficult now than they were when I was younger - because I can *read* now. It's like *she can read*! Everything becomes alive! I can *read* and I can *write* and I can *spell* things! You know, in that sense, it's quite exciting. I can actually *do* them now. I don't know, I don't have a lot of faith in exams I guess in terms of measuring how good people are at their subjects. I think it's a flawed system but I don't have any alternatives.

One of the things I like about [name of university] - you're allowed to study exactly how you want to and you answer to yourself, you're accountable to yourself. You're not really accountable to your lecturers or really accountable to your personal tutor. If you do something it's not because you're afraid of being punished in any way apart from grades. So I think it's quite empowering; I like that.

I chose my A-level subjects in align with my interests rather than the literacy problems caused by my dyslexia. This was a really difficult choice. I had the ability and interests in science but was more passionate about politics and socio-economics. In terms of grades, I think this choice has definitely worked against me. Sometimes I do think I might have had an easier time - but perhaps less fulfilling - if I had chosen subjects that were not essay-based. I find expressing my ideas and knowledge in literary form more difficult by far than acquiring knowledge and ideas.

[At university] I figured out that to do better I had to devote less time to learning about my subject because this was useless when it was my problems with dyslexia and exams that were holding me back. Other students didn't experience this conflict. I found it frustrating because I like my subject. I had to be 100% exam focused. I focused much more on passing exams than I did on understanding and knowing my subject because for me my marks were dependent on my dyslexia management not my knowledge or understanding. In terms of assessment, perhaps [I would prefer] multiple choice questions, viva, verbal interview based on assigned reading. This would shift [the] focus onto the quality of my ideas and understanding and away from how I express those ideas under exam conditions.

I think resilience especially against the idea that you are stupid is very important. A strategy I used was aiming high academically and accepting long term - years of - hard work from a young age without short-term incentive or progress. I think this has helped me do well ... because even after I became literate and started to manage my dyslexia more effectively, I kept working as hard as I had when I was little. My friends at university talk about how difficult university work is compared to when they were younger and in school, whereas I found primary school infinitely more difficult than any other stage in my education.

[Dyslexia is like] a big ball of string or a diagram of a networked system - for instance, like a visual map of internet site usage - or a mess of information. (Fiona, phase one interview, 20 April 2009).

**Eve**

Eve is a 20-year-old second-year student of Sports Science and hopes to become a PE teacher. She took part in phase two of my study and I found her to be friendly, confident and enthusiastic. Eve explained that she volunteered to take part because she hoped this would earn her points towards her Graduate Passport: a scheme run by the university to help students in their future careers by recording extra curricula activities they have contributed to.

Eve has a long history of literacy difficulties. She was originally assessed at the age of eight and given individual support throughout her schooling as well as extra time for both GCSE and A-level exams. Eve explained that she attended a very academic independent secondary school but was soon moved to a smaller less-competitive school where she was much happier. She was initially anxious about starting university as she does not like change and was accustomed to small class sizes and knowing all her teachers. She is highly motivated and determined to do well.

According to a recent assessment by an educational psychologist, Eve's general ability level is above average and she has particular strength in verbal skills; her literacy skills are weak. Eve's reading speed is extremely slow and both reading and spelling accuracy are poor. Eve has marked difficulty extracting meaning from complex text and this tends to be exacerbated under examination conditions. She explained that she often misreads or misinterprets examination questions and struggles to organise her ideas into a coherent structure. When she does well in exams she puts it down to external factors such as 'easy questions' whereas she attributes poor performance to defects in herself. Eve prefers coursework to exams because it is under her control and she feels rewarded for her effort. Apart from basic word processing Eve does not use any technology although she has been provided with specialist software and a digital recorder through the DSA. Eve recognises that it would be helpful to have recordings of the lectures but, despite taking up software tuition, she is not able to master use of the recorder.

Eve relies on a very detailed revision timetable to reduce her stress. She reduces lecture notes into a 'revision book' which holds all her mind-maps and memory triggers. She is not able to remember information and tries to make sure that she understands concepts; however, she finds that some information (more than she would like) has to be memorised.

**Eve: a profile in her own words**

I used to go to a very pushy school. That's where I started when I was four and that's why I think they noticed the dyslexia early because they had a lot of very bright children going there and I couldn't keep up. I was really young; they thought I was dyslexic and dyspraxic ... I'm not really dyspraxic but they thought I was at the time but they were right with dyslexia but not dyspraxia.

I was there for three years. I loved it. I had all my really good friends there and then in year three I moved up to junior school. They asked my mum - if I missed out on PE lessons, they took me out of PE lessons because at primary school they can do whatever they want with you - I had a couple of English lessons by myself. If I couldn't keep up with maths and stuff like that my mum had to have me a dyslexic tutor and I had to have a dyspraxic lady that I went to. And the agreement was that they would let me stay in the school as long as I kept to all this. I was really unhappy. I wanted to be outside playing PE. I wanted to have break time with everyone else. I was really unhappy.

I was really upset. I was such a bad child - like as in negative. I always said I couldn't do things. I was really quite a bit of a pain because of that. I actually *couldn't* read; I actually *couldn't*. But it came out in every other thing. I was like, "I'll never be able to swim, I can't do this, I can't do that". I would refuse to read signs. My mum used to always try and get me to read signs on the side of the road. I would refuse to try. She'd bribe me with food all the time, I remember, to learn spellings for spelling tests and I would just refuse. I was really hard to work with. I remember being hard to work with on purpose, I think. I don't know why because I think I found it hard. I didn't want to do it because I found it hard. I wasn't enjoying school; it was obvious I wasn't enjoying school so my mum took me out and moved me.

I had so much help with my dyslexia. I've always had tutors, oh my, gosh, for four hours a week. I've had a lot of help. And they're very supportive and all my teachers where I was only in classes of seven or five - maths was nine and so it was a lot of one-to-one attention and then when I came here [university] I was like, "Oh my God", you're in huge classes - everything goes a lot faster. I feel like I should, I could be doing better maybe if I used my help more.

It [dyslexia] is something that jumbles up everything and messes about; maybe like loads of wires like intertwined like, or was it like a massive scribble. That's the way I'd describe it. Really black so you can't really see in; it's a bit murky. Really annoying! So everything gets in the way.

I think you're really slow at learning things. I find it really annoying because I can't get things quickly. I get really angry when there are such simple things that I can't remember or I don't know and I should know them. I think I'm quite harsh on myself in that sort of sense. If I don't know something and I should know it and I know someone else knows it then I go and learn it. I realise I have got to put more work in and I'll go and put more work in to make sure I know it. I think I work a lot harder. I honestly work easily twice as hard as other people in my year and I get average grades. That was the same with A-levels. I worked so hard for A-levels and I did OK. I think dyslexic people have to put in a lot more effort because they've got to read everything three or four times whereas some people read them once and then get it.

I'm not a good learner at all - like the worst learner you could possibly have. I'm not good at learning stuff. I'm really not good at learning stuff. I think I blame quite a lot on it [dyslexia] … if I can't learn something. Maybe I should put more effort in and learn it. I think everyone can be clever as long as you just put the work in. You just keep going and you can actually get a good grade … Dyslexia doesn't mean that I'm incapable of getting firsts or I'm incapable of doing law or medicine; if I worked every hour God sent, I could do that.

I prefer coursework because it's under my control … you can control what you get … the more effort you put in the more you're rewarded … whereas in exams you're penalised for writing badly, like your handwriting is terrible, like spellings. It's just a massive rush … you can't show off what you know really well. Presentations, coursework, anything oral … yeah, I'd love that.

I wouldn't *not* go to university because they had exams but I'm a real stresser. Near the exams I won't go out a lot, if ever … because I get really stressed and I like to have lots of sleep because the night before the exams I won't sleep. I think exams affect me a lot - they affect my lifestyle. I think it's good that they [exams] are taxing. I like to be pushed and I like to have a challenge and I wouldn't want them to give me the grades on a plate. I think it's good that you've got to work hard for something because it's more rewarding when you do, when you achieve. I think everyone thinks I'm quite an easy-going person but I'm not. Like, not when it comes to work, I really want to do well. I push myself quite hard to do well. I have high, high expectations of myself. Why wouldn't you work your hardest to get good grades so you can do well in life … because I obviously want to do well in life - get a good job. (Eve, phase two interview, 21 February 2011).

**Keith**

Keith is a 42-year-old second-year student nurse. His dyslexia was identified during his first year at university and he regularly attends support sessions. On leaving school he did not meet the academic standards to join the police force; instead he took part in a youth training scheme followed by factory work, bus driving and finally healthcare assistant. Keith held a long-standing ambition to be a nurse and after passing an Access course with the Open University he was accepted on his present course. Keith has an eleven-year-old son who is experiencing the same difficulties as he did at school; this has awakened many memories.

**Keith: a profile in his own words**

It would have been under duress that I would have sat down as a youngster … to my protesting probably. It was a real struggle. I felt uncomfortable. I didn't enjoy the pressure that you're expected to perform in writing. I didn't enjoy that and I closed down. In fact my strategy in class was to be the class fool … I adopted strategies that enabled me to cope with the pressure of academia and that was literally to muck around and get laughs from my peers. If I couldn't get a laugh or couldn't get the result my teacher wanted then my other strategy with coping with that was to muck around. Barriers come up you put up a sort of wall. It's like, I think there's probably a sort of protection, you know … you become vulnerable, don't you? Because your peers and all of you in class, all of your peers, can write things down and you can't. You have certain sort of streams of learning and the bright kids, the kids that were academic … were in the top stream. Eleven years old you don't understand what's ahead of you, do you?

I probably would say I bumbled through. I don't think I had any kind of planning … no strategies involved. I think as a kid … that whole kind of teenage years, it was engrained - that sounds a bit - but I was never going to achieve academically so what are you worried about, sort of thing. University was never on the agenda. I was never going to go to university so it was never on the agenda. It was a case of you need to do this. It was not even a case of getting the best you can, it was just get through them [exams] … do what you can to get through them.

Coming to university... I want to be here, I'm taking it seriously anyway. I think that being diagnosed with dyslexia has enabled me to take on board information in other forms. It's just made sense of lots of things that have happened in my life. I don't feel uncomfortable with it, you know. I'm quite happy that I am now recognised and I've recognised [it]

myself. I don't have a huge hang-up because for me it was a bit of a unique moment it was "God, you know, that makes so much sense from what's happened to me previously".

It [revision] is a very challenging thing to do; it's not a comfortable thing. It's definitely a challenge. [I] haven't got a great concentration span and I'm amazed at how attractive putting the washing on becomes. I still don't see myself as academic. I'm not naturally academic I have to work at it.

I think I'm actually at a different level. My research strategies and my revision strategies are actually strategies rather than just bumbling through sort of thing. I don't bumble now. I'm beginning to achieve academically so that kind of encourages me … I just think, "yeah, you know, I can do this". If I get a fail I'm actually quite positive about it because I think "well, okay, that was a fail, you know you can go back, you can re-sit it … re-work it". My plan is to go on and do a degree in nursing. I'm on that journey - an emotional roller-coaster. (Keith, phase one interview, 23 March 2009).

**Predominant emerging themes**

In drawing together the connective threads in the participants' stories a number of themes emerged. I provide some exploration of the predominant themes here and analyse, interpret and discuss them in the following two chapters.

The participants had progressed to higher education via a diverse range of routes: three were mature students who had been in employment for a number of years; two had taken Access courses; four had taken previous degrees but were now achieving long-held ambitions in pursuing a particular vocational course; four had taken A levels and gained a place via the 'traditional route' although for one participant this had involved re-sitting a year in the sixth form and for another time spent working in a field related to her chosen course meant that she was offered a place after a rejection two years earlier. Gaining a place in HE was therefore a significant achievement for most of the participants and evidence of 'resistance through persistence' (Collinson and Penketh, 2010); indeed, a few participants had deliberately sought a place in a Russell Group university.

Control was an important theme running through many of the stories. Several described a desire to make learning their own as strategies taught by others did not work. Many participants had been motivated by a critical incident or significant event which had acted as a turning point (Newman, 2010) in their educational lives making them determined to take control of their learning and succeed. For some participants, the identification of dyslexia had acted as a turning point - particularly those assessed as adults – for others it

was comments by significant or important people in their lives and for others it was internal factors.

Despite the diversity of their backgrounds all participants described bewilderment and confusion during their early school lives when they were unable to achieve the prized literacy skills that their peers seemed to grasp with ease. At this stage in their academic lives, many participants described feelings often associated with learned helplessness (Abramson, 1978); self-efficacy was low, they had little control over their learning and any success was attributed to luck or ease of the task. For many it seemed that literacy skills were often equated with intelligence; they described resentment at a separation from their peers, a dislike of appearing different or missing out on leisure activities – of being 'other' and separated both physically and emotionally. For many these feelings persisted into HE. They did not want peers to know about their dyslexia and they valued inclusive arrangements, such as the provision of lecture notes for *all* students, which meant that they were not singled out.

Several participants described the importance of supportive relationships with a family member, a tutor or teacher or one particular friend. This support was often emotional and practical and sometimes actively and deliberately sought out. While finding collaboration and interactions with one or two supportive individuals helpful, it was clear that many of the participants were more circumspect in larger groups where their lack of automaticity with literacy skills or difficulty with pronunciation might be exposed. These feelings appeared to persist into HE.

Many participants described their difficulties with time. They displayed frustration at their slow reading rate, the need to repeatedly re-read material for full comprehension and their difficulties organising and structuring ideas and expressing themselves in writing. Some had developed coping strategies whilst others continued to feel disadvantaged. A dislike of timed written assessments was a common theme running through most profiles, although most students considered that they had to work within the system as it was. Several participants had been influenced by the mode of assessment in their choice of subject or modules within their course; however they were able to exercise choice only by opting to study particular modules or subjects rather than by any flexibility of assessment mode within the module or subject. There was no clear preference for any particular format; some participants described preferring written coursework assignments others preferred oral assessment or presentations. Certainly many felt disadvantaged by examinations which privileged the written word as a means of demonstrating knowledge and several displayed resentment if the examination appeared to be a test of memory and required rote learning rather than understanding. Many participants appeared cue-

conscious (Miller and Parlett, 1974) and used cues given by lecturers and tutors in a positive way; however, some appeared cue-dependent and found it difficult to adapt if the form of questions or an examination were not as they had expected. Several participants described the value of constructive feedback from lecturers and tutors that focused on the content of their work rather than on errors with spelling and grammar.

## Visual Data

As I discussed in Chapter Three, phase one photographs were taken by participants after the interviews and, in the main, acted as a form of triangulation confirming the revision strategies they had described. Phase two photographs were taken by participants prior to the interviews and served three main purposes: to break the ice and encourage a conversational style interview; to place control with the participants; to stimulate a wide-ranging conversation and encourage participants to reconstruct their experiences in a way that might not have been possible in a researcher-led interview. Some of the photographs taken by the participants are given in Appendix 13.

## Summary

In this chapter I have introduced six of the participants in some detail; the remaining participant profiles are given in Appendix 11. These data are important for presenting the participants as whole people with complex stories. In the main the focus of the participant profiles has been on the more affective elements of their educational experiences. I have also provided contextualising information about the HEI to help locate the participants within their learning environment and I have explored some of the predominant themes which have emerged from the profiles. In the following chapter I analyse and interpret these themes and in Chapter Six I discuss them in the light of existing literature.

# Chapter Five: Analysis and Interpretation

Crafting the participant profiles was the first step in my analysis and lay the ground for my interpretation of the data. In this chapter I explore the connecting threads in the participants' experiences. I analyse and interpret first the revision strategies used by dyslexic students and, second, the development of those strategies. I begin by returning to my research aims and the specific research questions.

## Research aims and questions

My aim was to explore dyslexic students' experience of preparing for examinations including their strategies and the development of those strategies. I wanted to know how they revised, what influenced this and how they felt about the experience of examinations.

As I described in Chapter Three, my approach to analysis was influenced, in the main, by Braun and Clarke's (2006) guidelines for thematic analysis and the data-driven open coding process described by Strauss and Corbin (1998). Data were always considered in context; I used codes as 'organising tools' (Dey, 1993, p40) to help me sort the data in a meaningful way. I organised the coded extracts (which were generally quite lengthy sections of text) into categories; the categories arose from the extracts. Looking for connective threads in the categories led to the emergence of three broad and overlapping themes; many individual coded extracts belonged to more than one category and, in turn, to more than one theme. Participants described strategies which could be classified as a reaction to exams: a strategy for protecting themselves and avoiding engaging with exams. These 'non'-strategies or anti-strategies were not productive; they were not thought out, organised or planned but tended to be an emotional response or, in some cases, an instinctive reaction to exams. Participants also described practical strategies for dealing with exams. These strategies demonstrated a practical and, to some extent, reasoned response often characterised by experimental techniques and taking strategic risks - examining the cost benefit of a course of action. The third category included strategies which tended to involve high levels of metacognition, planning and organisation. I have summarised and illustrated these themes, alongside contextual information and data sources for each participant (see Appendix 14).

**Indigenous typologies**

I have taken an emic approach to analysis and this in turn is reflected in the indigenous typologies I have drawn from the participants' own words. Typologies are defined by Patton (2002, p457) as 'classification systems made up of categories that divide some aspect of the world into parts along a continuum'. Rather than being discrete classifications, the typologies I have drawn up represent a grouping along a continuum; belonging to one typology or another is a matter of degree and interpretation rather than a clear distinction. Moving back and forth between the corpus of data (in the main the interview audio recordings) and my writing, I was able to refine the criteria for allocating coded data extracts to categories, to differentiate between categories and to identify the defining characteristics of each category. In order to distinguish one typology from another, I have defined characteristics or attributes which are typical of each typology. In doing so I recognise the limitations of this approach but offer the typologies as thinking tools or 'frameworks for understanding' (Goodson and Sikes, 2001, p2) rather than 'factual representations of reality' (Clough, 1999, p2).

Although the categories do not have distinct boundaries or demarcation lines, I have endeavoured to heed Patton's (2002, p466) advice that they should have both internal and external 'plausibility': viewed internally they should appear consistent; viewed externally they should be complete and represent the whole picture. Furthermore, I have been guided by Patton's (2002, p465) suggestion that categories should meet two critical criteria: internal homogeneity which is concerned with the cohesion within the category; external heterogeneity which is concerned with the distinction between categories. In many cases data extracts were allocated to several categories. Although each participant talked about strategies under all three categories, using a continuous iterative process involving extensive use of the audio recordings, I was able to place each individual participant along the continuum according to his or her dominant strategy. The audio recordings were crucial as they provided the meaning and emotion behind the words. In the following section I describe the three typologies, detail the category criteria and illustrate the typology continuum pictorially.

The indigenous typologies distinguish descriptive aspects of the participants' behaviour when revising for exams; taking the terms from the participants own words I have named them: Bumblers, Dealers and Procedurists. The three indigenous typologies correspond to my analyst-constructed typologies: emotional 'non'-strategists/anti-strategists, practical emergent-strategists and super cognitive-strategists.

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**Bumblers/emotional 'non'-strategists or anti-strategists**

At one extreme of the continuum lie participants who I have termed the emotional 'non'-strategists/anti-strategists or the 'Bumblers' at a certain point in their educational careers. I take this term from the participants' own words and no disrespect is intended – I am merely working with honesty with the data in ways I hope will be helpful to the study and to informed ways forward from it. Bumblers among the participants appear to have few or no revision strategies; their response to exams tends to be, for the most part, an emotional reaction - a means of protecting themselves, often by avoiding revision. Their strategies are not strategies for revising but strategies directed at avoiding the process and disengaging from examinations – hence the idea of an anti-strategist. Keith's description of his earlier attitude is a useful summary of a Bumbler's approach:

> I think I probably again didn't have any formalised sort of, nobody taught me how to revise. I probably would say I **bumbled** through. I don't think I had any kind of planning. I don't think I had any kind of … yeah, no strategies involved it was literally under duress … I don't think it was even a case of getting the best you can; it was just get through them. (Keith, phase one interview, 23 March 2009)

In the following section I describe characteristic Bumbler behaviour illustrated with data extracts, taken in the main from the participant interviews. In many cases participants were describing their previous attitude to exams as, at the time of the interview, most had moved along the strategy continuum.

Bumblers tend to react to exams rather than plan for them. Exams are something they 'have to do' (Bridget, pilot interview, 2 December 2008). Sharon (phase one interview 23 March 2009) explained 'I don't ever remember revising for anything … I just went in and did the exams'. Bumblers expect failure and doing badly is 'something you just have to get used to' (Tim, phase two interview, 6 June 2011). They tend to adopt a 'don't care' attitude, to detach themselves and give the appearance that they do 'not really get that worried about exams' (Tracy, phase one interview, 13 March 2009). Bridget described her previous approach in the following way:

> I didn't really care either way because it didn't make an impression … It didn't really count … I'm not actually involved with it, I detached myself from it. (Bridget, pilot interview 2 December 2008)

Bumblers among the participants appear to view performance in exams as outside their control and display traits characteristic of learned helplessness (Abramson et al., 1978).

They expect failure because they have 'always done badly in exams … it's something you just have to get used to' (Tim, phase two interview, 6 June 2011). They have a tendency to 'give up' (Henry, phase two interview, 16 June 2011); if they pass it is 'a happy surprise' (Bridget, pilot interview 2 December 2008) and independent of their personal effort. Bridget (pilot interview, 2 December 2008) takes the attitude 'well, I've already failed, you know. Sod it. Not going to do any better. Not going to try'.

Bumblers have a tendency to react to exams by employing avoidance or distraction techniques, which is a strategy of sorts if not a revision strategy. Many participants described resorting to bad behaviour including a tendency to 'muck around … get a laugh' (Keith, phase one interview, 23 March 2009), 'get into trouble' or play 'Jack-the-Lad' (John, phase two interview, 17 March 2011) or 'act out … misbehave' and be 'a bit pushy' (Henry, phase two interview, 16 June 2011). Others, such as Tim resort to 'cheating' because, as he explains he 'was getting rubbish results in comparison to other people' (Tim, phase two interview, 6 June 2011), while others such as Sharon and Tracy failed to attend exams.

Rather than trying to avoid personal distractions, Bumblers appear to seek distractions as a way of avoiding revision. Tracy (phase one interview, 13 March 2009) talks about revising 'when pretty much hopefully there's no other things I could be doing instead' and 'resorting to cleaning so I wouldn't have to do something like that', while Keith (phase one interview, 23 March 2009) is 'amazed at how attractive putting the washing on becomes'. Similarly, Bridget (pilot interview 2 December 2008) insists that she is not able to revise if she is 'not in the mood' as her 'mind will wander and it's a complete waste of time'.

Bumblers tend to lack organisation and avoid planning ahead. They are concerned with 'getting through' exams rather than 'getting the best you can' (Keith, phase one interview, 23 March 2009). They tend to lack interest in the subject and are not able to pick up on cues given by tutors and lecturers; they are 'never sure what [is] important and what to make notes on' (Bridget, pilot interview, 2 December 2008). They might describe themselves as 'never … very good at organising' (Bridget, pilot interview 8 December 2008). It is not important to Bumblers whether they cover everything, or even anything - as Tracy (phase one interview, 13 March 2009) explains, 'if I try to force it then I wouldn't learn anything anyway so no point trying to force it'.

Past exam papers, which feature largely in the revision strategies of Dealers and Procedurists, hold little interest for Bumblers who are 'not sure what to do with them' (Bridget pilot interview, 2 December 2008).

Bumblers acknowledge using dyslexia as something to 'hide behind … a really convenient excuse … I can't do this I'm dyslexic, you can't make me. I've got a piece of paper which says I can't do this.' (Bridget, pilot interview, 2 December 2008).

I have drawn up the typologies as thinking tools rather than 'factual representations of reality' (Clough, 1999, p2); however, to give substance to an abstract concept, I indicate an exemplar for each category: one participant who appears to exemplify or epitomise the characteristics of each typology. Bumblers are epitomised by Tracy.

### Procedurists/cognitive super-strategists

At the other extreme of the continuum to Bumblers lie students whose dominant strategy I have classified as 'cognitive'; these participants I have termed the 'cognitive super-strategists' or the 'Procedurists'. In this section I present some of the attitudes and approaches characteristic of Procedurists.

Procedurists among the participants appear to have devoted much thought and planning to their strategies. As cognitive super-strategists they have 'learnt how to learn' (Max, phase one interview, 27 April 2009). They tend to be highly organised and have worked out a 'set and logical procedure to do' (Max, phase one interview, 27 April 2009), a 'battle strategy' (Cindy, phase one interview, 23 April 2009), or a 'robust … method' (Max, phase one interview, 27 April 2009). These students tend to leave little, if anything, to chance. They appear to know how they learn best and have worked out how to maximise their marks. They tend to choose courses, and modules within courses, according to the assessment format that suits them best. They appear to try to cover everything and overcome the time element by starting early, analysing what is required and gaining an overview of the topic. Most like to put information in their own words, repeatedly reducing it; they are often quite specific about the way information is laid out. In the main they rely on understanding rather than memorising and make extensive use of past exam papers, course handbooks and mark schemes, if available. They tend to be cue conscious and actively seek cues about possible exam questions but they are not cue dependent. If the exam environment or format changes, they quickly adapt and learn from it. They may well enjoy exams, or some aspects of exams. Procedurists are epitomised by Max and the following, in his words, illustrates a 'Procedurist' approach:

> I consider myself very organised … I've come up with a set and logical, **procedure** to do … a robust perhaps method … It's [dyslexia] made me a million times more organised simply because I *had* to. I've learnt how to learn. (Max, phase one interview, 27 April 2009)

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A Procedurist's strategy includes making extensive use of past papers. Ned (pilot interview, 8 December 2008) describes this as 'living off' past papers whereas Max (phase one interview, 27 April 2009) describes past papers as 'my whole procedure' and Fiona (phase one interview, 20 April 2009) explains that past papers 'impact my whole strategy and how I'm gonna learn'. Comments made by Seb, Eric, Max, Fiona, Cindy and Tim (all in, or towards, the Procedurist end of the strategy continuum) illustrate the central role played by past papers in the revision process:

> I get the exam papers or the past exam papers at the beginning of the unit, like pretty much before I go to my first lecture … other students don't do this, other students think I'm mad. "Why are you looking at past papers now?" (Fiona, phase one interview, 20 April 2009)

> Before I even start revising … I'll look at past papers and highlight what's come up every year and what hasn't come up in three years but does come up every ten and I'll really focus my revision on that and second guess on what's going to come up and focusing most of my energy on that … I get the right materials … like past papers and you can see what's going to come up. (Seb, phase one interview, 11 May 2009)

> The exam technique I developed is the one where I get hold of the past papers and I start by doing. I start immediately with the past papers and I will keep going and as soon as I find something I don't know I will look it up and work it out and check it's right and then move onto the next thing and just work through past papers repeatedly doing that. (Eric, phase one interview, 12 March 2009)

> Seeing how theory is used in exams, old exam questions was the best way for me to revise … I lived off past papers. (Ned, pilot interview, 8 December 2008)

> I do all the old exams that are available … I just do the past papers. (Cindy, phase one interview, 23 April 2009)

> [The most important factor is] access to past papers with comprehensive answers. (Eric, written correspondence, 19 January 2011)

Although past papers are used strategically as a way of 'focusing efforts' (Fiona, phase one interview, 20 April 2009) and as a means of predicting likely questions, in the main Procedurists use past papers to check that they 'understand what is going on' (Eric, phase

one interview, 12 March 2009). Procedurists among the participants demonstrated strategies consistent with a deep approach to learning (Marton and Saljo, 1984, Biggs, 1987); they are interested in understanding rather than memorising. They try to gain an overview of the whole topic or course and to cover everything. They view topics within the course as 'all interconnected' rather than random bits of information (Fiona, phase one interview, 20 April 2009). They tend to 'look at the bigger picture straightaway' so that they can 'put everything into context' and relate one thing to another (Fiona, phase one interview, 20 April 2009). They 'learn a topic rather than just learning random bits of information' and 'link the topics together' (Ned, pilot interview, 8 December 2008). Fiona and Ned summarise this approach in the following way:

> I look at the bigger picture straightaway whereas most people seem to start at the beginning and then work in a linear process up towards the end and then do the exam. I will look at the whole unit and then as an overview and then look into specific bits so I can put everything into context because that's really important way of how I learn, it's just relating everything and having it in context and knowing what everything means … It's all inter-connected and that's how I remember things is if they mean something. (Fiona, phase one interview, 20 April 2009)

> You learn a topic rather than just learning random bits of information. You learn topics at a time and then you link the topics together and that is how I worked through my revision. (Ned, pilot interview, 8 December 2008)

All Procedurists among the participants talked of a need to understand the subject rather than attempting to memorise information. Characteristically they try to go into the revision period knowing that they have 'already understood 100% of the concepts' (Max, phase one interview, 27 April 2009). Several Procedurists explained that understanding concepts meant that they could adapt easily when the format of the exam changed or exam questions were formulated in an unexpected way. Eve summarises this in the following way:

> I've got to learn something and I've got to understand it because they often ask you like a trick question so you've got to be able to understand it in order to understand the question to, you know, answer the question. (Eve, phase two interview, 21 February 2011)

Similarly, Ned explains:

> I have to understand it completely before I can attempt questions at it … I actually want to understand it … sometimes you may get a question which is based on the theory but needs you to understand it; to manipulate it to get the right answer to a different type of question … that's cunning you know … and that is why I always make sure I understand. (Ned, pilot interview, 8 December 2008)

Several Procedurists mentioned using past papers to check that they could complete exams within the time-limit:

> I would just do the entire thing [past exam paper] and time myself. I needed to get my time because one of my major problems was time rather than knowledge. I understood all the stuff but I just took a long time to do it … so that's why I made sure I did the full questions so I could prove that I could do it in a certain amount of time. (Ned, pilot interview, 8 December 2008)

Many Procedurists among the participants indicated a strong sense of understanding their own strengths and relative weaknesses. Not only are they using past papers in the revision process but also many Procedurists indicated that past papers influence their choice of subject, module or course:

> I get the exam papers or the past exam papers at the beginning of the unit, like pretty much before I go to my first lecture and get the past papers, print them out, have a look at what kind of question even sometimes, I select units based on how many questions there is going to be in the exam or the type of exam I'm gonna sit. (Fiona, phase one interview, 20 April 2009)

> About 50% of me picking which units I want to do will depend on their assessment. (Tim, phase two interview, 6 June 2011)

Many Procedurists among the participants described a need to personalise information. Max and Seb describe this in the following way:

> I'd rather read my own notes than someone else's notes. If I read the lecturer's notes I have to interpret it … whereas, if I've written my own notes, I can just read it and I'll know it straightaway. (Max, phase one interview, 27 April 2009)

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I'll get to a point where I can have everything I need to know for a whole topic on just one page … I don't like mind-mapping because that's not logical enough whereas my way makes it logical (Seb, phase one interview, 11 May 2009)

If the format of the exam or the style of questions changes, Procedurists tend to adapt quickly and learn from the experience. Eric (phase one interview, 12 March 2009) explained that he would 'check more carefully as to whether the lecturers are planning to stick to the formula of previous papers or not' and rather than 'learn the technique, it will be more *learn the information*':

Procedurists tend to be confident in their ability to perform well in exams. Three Procedurists among the participants (Seb, Eve and Max) indicted that they enjoyed some aspects of revision and exams. Seb spoke of 'quite look[ing] forward to it' (phase one interview, 11 May 2009) based on his good feeling that he anticipated doing well. Similarly, Eve spoke positively of this dynamic and Max commented that 'exams are actually OK … The best exams test knowledge and its application' (written correspondence, 19 January 2011).

Although I have placed Eric towards the Procedurist end of the strategy continuum, he does not appear to have the typical Procedurist confidence in his own ability. He describes exams as 'very stressful' and it is clear that this is in part because he perceives that 'I am being judged on how well I can regurgitate info' (written correspondence, 19 January 2011). Rather than exams assessing understanding it is evident that Eric feels that exams often measure the ability to memorise – a skill he finds difficult.

Unlike Bumblers who appear to ignore cues given by lecturers, Procedurists tend to be adept at picking up cues about likely examination questions:

One of our lecturers dropped a hint the other day that the ones [past papers] of odd years tend to be quite close together - quite similar - a big hint. So 2009 will be close to 2007. (Eric, phase one interview, 12 March 2009)

Whereas Bumblers tend to consider attendance at lectures is all that is necessary, Procedurists engage actively in lectures and tutorials as a way of making sure they understand concepts. Characteristically they prepare beforehand and ask questions:

Straight after the lecture, I've looked at the notes and written side notes and if I haven't understood anything then, yeah, go straight to them and ask. Make sure that I always understand everything. (Max, phase one interview, 27 April, 2009)

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Many participants I have placed along the Procedurist end of the strategy continuum mentioned an awareness of time; both the time needed for revision and also their use of time during the exam. As mentioned earlier, Ned (pilot interview, 8 December 2008) leaves little to chance and works through entire papers under exam conditions to 'prove that I could do it in a certain amount of time'. Similarly, Fiona (phase one interview, 20 April 2009) describes her 'main problem' as time; she tries to cover everything - 'I wouldn't gamble in terms of ... hope it's going to turn up on the paper'. Nevertheless, she is aware that as literacy tasks take her longer than non-dyslexic students she needs to know 'where to focus my efforts'.

Max (phase one interview, 27 April 2009) describes a 'coursemate' as 'a very useful resource' who saves him time. He books a room in the library because 'if you book a room ... you *will* be there' and spends the time going through past exam papers with a fellow student, 'a coursemate'. Max explains that 'having someone to explain stuff to you' is preferable to reading which he describes as 'the painful slow bit'. A coursemate therefore 'saves a lot of time ... I'd have to go and look up stuff I don't understand ... it takes a long time to find a quicker resource' (Max, phase one interview, 27 April 2009).

Unlike the Bumblers who seem to seek distractions, Procedurists rarely appear to be distracted. Max's description is characteristic of a Procedurist approach:

> It's just a mentality thing. You know, if I sit down I think I'm going to revise this text book tonight I will go through it until it's done and I'll have all the notes and then I think right that's done. (Max, phase one interview, 27 April 2009)

**Dealers/ practical emergent-strategists**

Between the two extremes of the strategy continuum (Bumblers and Procedurists) lie students whose dominant strategies I have classified as 'practical'. These students tend to 'deal' (Henry, phase two interview, 16 June 2011) with exams in a practical way. They are no longer bumbling along but they still appear to lack confidence in their ability. These students are the emergent-strategists; they appear to be experimenting with a wide range of practical strategies and are beginning to analyse what works well for them. They seem aware that understanding is generally better than remembering but feel under time pressure and often take a strategic risk about what to revise rather than 'blanket' (Henry, phase two interview, 16 June 2011) everything; they tend to weigh up the cost benefit of a course of action. These students are often cue conscious and use past exam papers to spot likely questions. They are frequently stressed by exams and tend to be overwhelmed if the environment alters or the format of the exam is changed. I have termed these

students the 'Dealers'. Dealers are epitomised by Henry (phase two interview,16 June 2011) who sums up, 'It's [dyslexia] very annoying but, you know, once again that's life. I **deal** with it. Eric also used the language of dealing with it:

> You just **deal** with it ... **deal** with the problems I have with words and remembering things. I don't often ... I just get on actually *doing* as there's nothing I can do about it. So the only option is to just put in the effort and get on with doing it. (Eric, phase one interview, 12 March 2009)

Dealers tend to be easily distracted although, unlike Bumblers, they try to avoid distractions rather than seeking distractions, as Henry explains:

> I'm so bad I get distracted all the time so easily I just cannot do anything at home because I get easily distracted ... So I think "Oh I can go and do this or I can do this?" but ... I know I've just got to work. (Henry, phase two interview, 16 June 2011)

Unlike Procedurists who tend to base their revision strategies on understanding and gaining an overview from the start of their course, Dealers appear to wait until nearer the exam period to begin revising and feel under constant time pressure, as Henry's reflection shows:

> Time isn't my friend normally ... I can't read massive texts, it's impossible for me ... it does waste time, it's inefficient but it's the only way for me ... someone else would just - fine, it's done and dusted ... I would say it's probably because of my dyslexia in a way. It does, it *wastes* time for me. It's very *annoying* ... with exams you need to be time efficient ... if you're wasting time and being inefficient then it's just time wasting, it's annoying and I don't really like it ... It can become frustrating but I've accepted it. It's what happens and it's the way I revise. (Henry, phase two interview, 16 June 2011)

Whereas Bumblers appear not to care whether they cover everything and Procedurists take no risks and make sure they cover the entire course, Dealers appear prepared to take a strategic risk. They are developing an awareness of how they learn; they tend to experiment with new strategies and weigh up the cost benefit of trying something new: whether it is worth investing time in experimenting with a new strategy. This characteristic Dealer approach is displayed by Sharon and Henry:

The problem being is that I'm very scared because you sort of don't have time to try things out in a way … if I scrap that [usual revision strategy] and don't get a good mark then I'm now on the back foot. (Sharon, phase one interview, 23 March 2009)

This was a new thing I did this time. I decided to do … mindmaps. Yeah, this new thing. Might have been a bit of a risk but it totally paid off … because … if you do something and it doesn't work out you've wasted a lot of time. (Henry, phase two interview, 16 June 2011)

Fiona (who I have placed at the Procedurist end of the continuum) explained that her first year at university gave her the opportunity to experiment with strategies; whereas Henry (a Dealer) was taking 'a bit of a risk'. Fiona was employing a logical, thought-out strategy - a Procedurist rather than a Dealer approach:

I could re-think the whole way I was doing things … I *loved* the first year, didn't count because it meant that I could completely experiment with lots of different ways of doing things and come up with the *best* way of doing things and not have to worry that if it doesn't work it will, you know, ruin my degree because first year doesn't count so I could try lots of different strategies. (Fiona, phase one interview, 20 April 2009)

Unlike Bumblers who appear to be largely untouched by exams and Procedurists who seem to enjoy some elements of exams, Dealers tend to have a strong dislike of exams:

[Exams] I hated it, always have done. They've always made me very nervous … I always feel there is something I've forgotten or I will go into an exam and it will be *just evil* … I'm always, always terrified that that will happen to me again. It's one of the worst feelings I think I've ever had. (Ned, pilot interview, 8 December 2008)

I hate, I mean I really dislike exams. Really dislike them. I'll do anything to not. I'll even do a subject, I've not, don't think I've done it but I will even do a subject that I didn't want to particularly do to avoid having to do an exam. (Tim, phase two interview, 6 June 2011)

In contrast to the Procedurist attitude displayed by Eric, where a change in the exam format provided a learning opportunity, Seb's reaction illustrates a Dealer tendency:

What's so frustrating in the exam I've just had, the questions weren't as they said, because I went and complained to the Module Leader which was so out of character

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to me just because I *know* I can do well in exams now and so it's *frustrating* when they move the barriers. (Seb, phase two interview, 11 May 2009)

In common with Procedurists, Dealers generally regard understanding as preferable to memorising information; however, unlike Procedurists who try to make sure they cover everything, Dealers feel that they do not have enough time to invest in understanding and instead often adopt what has been termed a shallow approach to learning (Biggs, 1987, Marton and Saljo, 1997): short-term memorising rather than understanding:

> You can learn stuff and then not understand it because you can just, with exams, I think a lot of people just regurgitate it … that's not good … I think I've actually learnt this recently and I've a better understanding … I can remember a lot of information and just spray it out … I can remember a lot of stuff … but then I won't formulate it in a good argument … and that's not essentially good in an exam … I think I could probably spray some stuff without understanding it, definitely. (Henry, phase two interview, 16 June 2011)

Dealers seem aware that organisation is important but, unlike Procedurists, they tend to find organisation difficult and tend to rely on others. Tim finds the course lecture notes, which are provided in one booklet at the beginning of the semester, extremely helpful. He is aware that his organisational skills are not good; he would find it difficult to keep his notes in chronological order and he is likely to discover them 'screwed up at the bottom' of his bag 'and 50% of them never see your eyes again' (Tim, phase two interview, 6 June 2011).

Dealers tend to share the Procedurists' passion for past papers; however, rather than using them in a strategic way to inform understanding and gain an overview of important elements of the topic from the start of the course, they tend to use them in the immediate period before exams to 'question spot' and reduce the workload. Henry and Tim describe a characteristic Dealer rather than Procedurist approach:

> I know this sounds bad but I question spot … you have to do this in my subject but you see about ten questions and you think "oh, what can I do?" and you look at the past papers and see what similarly comes up. You get a pattern and then … rather than go over and blanket everything - that is inefficient and time wasting, because, you know, I've only got so much time. I pick three or four questions and … I just go over … them. (Henry, phase two interview, 16 June 2011)

> If we say the exam [revision] period is one month long ... I'd probably start looking at past papers, sort of, week two and three because I've often found that if I start looking at exam papers right at the beginning ... I start to freak out, I don't even know what any words in that paper, in that question *mean*! (Tim, phase two interview 6 June 2011)

Although I have placed Fiona towards the Procedurist end of the strategy continuum, unlike most Procedurists she does not try to cover everything; however, neither does she 'gamble':

> I'm *very* careful. I don't take - I wouldn't gamble in terms of, I wouldn't just, I mean I know some students who gamble in terms of they just go to this and hope it's going to turn up or *definitely* come up. (Fiona, phase one interview, 20 April 2009)

Dealers tend to be cue conscious and take note of areas which lecturers indicate might be important in exams. However, unlike Procedurists who appear to use this information to gain an understanding of the course, Dealers tend to use cues given by lecturers as a way of limiting the material they need to cover and managing the time element. I have placed Cindy at the border on the strategy continuum between Dealers and Procedurists. She displays many cognitive super-strategist approaches and is extremely organised; however, she tends to rely on memorising and takes a strategic risk about the material she will cover when planning her revision or 'going into battle':

> You must have a battle strategy when going into battle. Take no prisoners; every bit of information that is relevant you must find and hold onto. Things that are not relevant, forget them, because you're not going to need them ... Relevant is always on what you are really tested on. (Cindy, phase one interview, 23 April 2009)

Dealers, unlike Procedurists, tend to display traits characteristic of learned helplessness (Abramson et al., 1978); they lack confidence in their ability to perform well in exams. Tim describes his assumption of poor exam performance based on past experience. Henry's low expectation of himself though is a way of protecting himself against disappointment:

> You know you'll never get the highest grade ... you have to be satisfied with an average grade, you know. It's an absolute knock-back especially when you see people getting like massive 80, 90%. (Henry, phase two interview 16 June 2011)

Bridget (pilot interview, 2 December 2008) though, sums up the helpless feeling most powerfully when she states - 'I know I'll fail … *whatever!* I know I'm going to fail'.

Similarly, Dealers among the participants tended to attribute success in exams to 'easy questions' (Eve, phase two interview, 21 February 2011) and poor performance to failings in themselves or factors outside their control. Eve (phase two interview, 21 February 2011) described herself as 'the worst learner you could possibly have' and believed failure to be caused by 'not knowing things and not being able to learn them'.

**Typology criteria**

I have drawn up the three typologies (Bumblers, Dealers and Procedurists) as thinking tools; they do not have strict boundaries or demarcation lines as can be seen by my illustration in Figure 5.1. Nevertheless, in order to differentiate between the typologies, in the following section I set out the key distinguishing criteria for each typology. In drawing up the criteria I have been mindful of Patton's (2002) advice that they should be consistent and as far as is possible they should also be complete.

**Criteria for emotional 'non'-strategists/anti-strategists: Bumblers**

Bumblers tend to:

- react *to* exams rather than plan *for* exams
- use avoidance strategies such as bad behaviour, cheating or absence
- display an outwardly 'don't care' attitude
- expect failure
- lack active cue-consciousness
- overcome the lack of time by doing very little
- read through notes as 'appearance' of revising
- seek distraction and very easily become distracted
- lack organisation

**Criteria for practical emergent-strategists: Dealers**

Dealers tend to:

- experiment with strategies but, even if successful, the strategies are not secure
- take a strategic risk as there is insufficient time to revise everything
- have some organisation and structure to their strategies but shortage of time is a problem

- analyse the cost/benefit of a strategy
- have an awareness that understanding is better than remembering but often resort to trying to memorise
- become quickly overwhelmed if the environment - the exam format or structure - is not as expected
- have developed cue-consciousness
- try to avoid distractions
- become very stressed by exams
- expect to perform badly in exams - if they do well tend to think it is luck or the questions were easy

**Criteria for cognitive super-strategists: Procedurists**

Procedurists tend to:

- have developed a set of thought-out, logical, methodical procedures
- require an overview of the course/topic/subject
- use past examination papers, course handbook and any other information about exams that is available
- cover everything – start early as a way of overcoming the time element - understanding is key
- have well-developed cue-consciousness but tend not to be cue-dependent
- have developed the ability to remain focused
- find some aspects of exams enjoyable
- have a high level of organisation

As I described earlier, the three typologies I have drawn up form a strategy continuum. I have illustrated the three overlapping typologies and the approximate position of each participant along the strategy continuum in diagrammatic form in Figure 5.1.

## Strategy Typologies
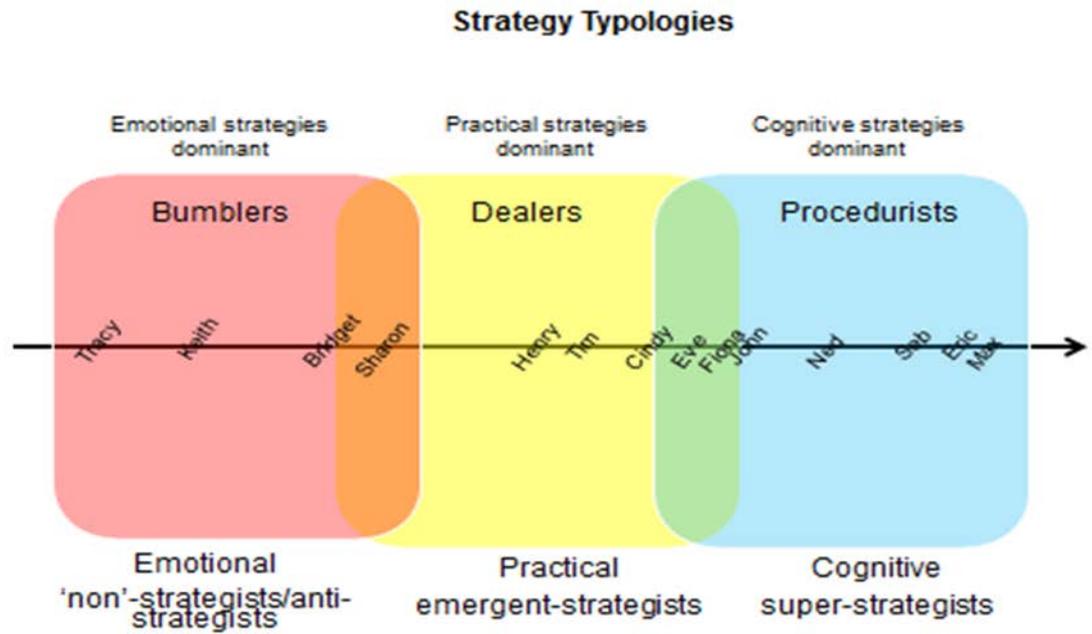


Figure 5.1 Strategy typologies and positioning of participants along the continuum

The strategy continuum illustrated in figure 5.1 indicates the position I placed each individual participant at the time of the interview; however, it tells nothing about how each participant arrived there. In the next section I explore the journey along the strategy continuum.

**A sense of control**

Participants told me powerful stories about their early educational experiences and the impact of these experiences on their feelings of academic competence. A recurrent theme, which ran through *all* participant narratives, was a feeling of bewilderment and frustration when young. Acquiring literacy skills, which appeared an easy process for peers, seemed outside their grasp. Many participants explained that strategies taught by teachers - 'their system' (Eric, phase one interview, 12 March 2009) - did not seem to work. Most participants had progressed along the trajectory from experiencing confusion and little sense of control over their learning to one of taking control and being in charge of their own learning. I use the term 'sense of control' to indicate the participants' feelings of control over their academic lives. By moving back and forth between my writing and the corpus of data I was able to draw up criteria for a 'sense of control' and place each participant on the control continuum. In the following section I present data extracts illustrating the way in which participants described the journey from failure and

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bewilderment to a growing sense of control; I detail the criteria for a 'sense of control' and indicate the approximate position of each participant on the 'sense of control' continuum.

In the early school years the vast majority of the school curriculum is literacy-based and the dominant value system operating is proficiency with the written word. All participants described feelings consistent with a low sense of control at this point. They compared their performance with that of peers and expressed confusion, bewilderment and frustration that they were unable to do what their peers did with ease. Keith (phase one interview, 23 March 2009) described becoming 'vulnerable' because all of you in class, all your peers can write things down and you can't'. Eric (phase one interview, 12 March 2009) became quite emotional and described feeling 'frustrate[d] because you think you're incapable'. Similarly, John (phase two interview, 17 March 2011) explained that it was 'frustrating not being able to do it and see that everyone else could do it'. Tim (phase two interview, 6 June 2011) did not like 'getting rubbish results in comparison to other people', while Fiona (phase one interview, 20 April 2009) explained that she 'didn't know what to do' because 'no matter how hard [she] tried it didn't seem to make a difference'; she described the situation as 'ridiculous' and 'very surreal because everyone else was like, "this is easy you can do this" and I was like, "it's not working"'. Likewise, Bridget (pilot interview, 2 December 2008) compared her performance with that of peers and described it as 'depressing' when she was 'looking at my friends essays and looking at mine … always avoided'. Max (phase one interview, 27 April 2009) expressed frustration that he was denied the coveted 'smiley face' that was awarded to other children and described the humiliation when the teacher asked him to throw away work that had taken immense effort and time:

> It's not very motivational when a teacher says "everyone else can write neat, so close it away and do it again". (Max, phase one interview, 27 April 2009)

Inevitably individuals tend to be judged by the criteria of the society in which they live. As good literacy skills are taken as a marker for intelligence, it is unsurprising that many of the participants associated their problems acquiring literacy with lack of ability. Ned (pilot interview, 8 December 2009) explained that he felt 'just stupid, which when you think you're stupid that's quite a depressing thought'. Similarly, Eric described 'feeling stupid' and 'just incapable' which 'upset me a bit', while Fiona explained that she felt 'very much under attack' when she was unable to learn the alphabet. She was distressed because her peers and teachers 'would think I'm stupid' and she 'didn't want to be labelled stupid'. Tracy described feeling that she 'just wasn't very clever … like I was just a bit dumb'.

Inability to control their academic lives and perform as their peers led many participants to feel 'vulnerable' (Keith, phase one interview, 23 March 2009) and 'under pressure … very confused … very much under attack' (Fiona, phase one interview, 20 April 2009). As discussed earlier, participants sometimes reacted to a lack of control over their learning by 'mucking around' (Keith, phase one interview, 23 March 2009), 'acting out' (Henry, phase two interview, 16 June 2011), 'being cheeky … having a silly event … playing Jack-the-Lad' (John, phase two interview, 17 March 2011).

For many participants the identification of dyslexia appeared to provide an explanation for their difficulties and for some this was the time when they began to increase their sense of control. This was particularly evident for those diagnosed as adults such as Keith who was assessed at the age of 42. Dyslexia provided an explanation both for himself and others:

> I think it just made sense of lots of things that have happened in my life and now I'm quite happy that I am now recognised and I've recognised myself that it is the problem. It was a bit of a unique moment. It was God, you know, that makes so much sense from what's happened to me previously. (Keith, phase one interview, 23 March 2009)

Although Ned was only eleven when assessed his comments are characteristic of those who found the diagnosis a positive experience and an opportunity to reframe their perspective of themselves as learners.

> When I started getting support when I sort of had an excuse, as such, for why I was so far behind, it wasn't so bad. It wasn't that I was just *stupid* which when you think you're stupid that's quite a depressing thought. (Ned, pilot interview, 8 December 2008)

Similarly, Tracy, who was assessed at the age of seventeen, indicates that the diagnosis of dyslexia provided her with the opportunity to reframe her perception of herself:

> It made me feel more comfortable about it … I didn't feel thick … whatever it means to be dyslexic. It didn't make me feel like I was just a bit dumb. (Tracy, phase one interview, 13 March 2009)

Although she was quite young when she was assessed Fiona also recalled the positive aspect of diagnosis:

I had no idea what was going on and that was before I realised I was dyslexic. I actually, I mean some people, some people get very upset when they realise they're dyslexic but I was actually quite happy because before that I was just like "what is going on here?". (Fiona, phase one interview, 20 April 2009)

However, for some participants - particularly those diagnosed at a young age - the diagnosis did not appear to be a positive experience. The reaction of Tim's parents on receiving the news appears to have left a lasting impression on him:

Thinking back now it's almost like this child is going to *die*. Don't hear this. (Tim, phase two interview, 6 June 2011)

Similarly, Fiona (phase one interview, 20 April 2009) suggested that dyslexia might be seen as 'a personal flaw'. It was evident that several of the participants perceived dyslexia as something which set them apart from their peers and they disliked the 'label':

I do hate the fact that it comes with a label. "Hi I'm Tim I've got dyslexia". I don't do that but, you know, that's almost what you're expected to do and then you're expected to go out of class ... I think the biggest thing was somebody pointing out or telling people that I had it. I didn't like that ... I think I was embarrassed because ... I had to go and sit with the naughty kids. (Tim, phase two interview, 6 June 2011)

I think I would have been labelled with the medical that says this kid has dyslexia which was horrendous. (Eric, phase one interview, 12 March 2009)

Even at university a dislike of separateness is evident. Henry avoids telling his peers about his dyslexia and avoids using his digital recorder or making use of technological support for dyslexic students; he wants to appear 'on a par' with his peers:

One or two but not many [friends know] ... don't ask, don't tell kind of thing really ... if they don't say anything then, no, I don't tell them. (Henry, phase two interview, 16 June 2011

Nevertheless a diagnosis of dyslexia provided a positive reframing and increase in a sense of control for many participants; Ned's explanation is characteristic of this reframing:

When I started getting support when I sort of had an excuse as such for why I was so far behind, it wasn't so bad. It wasn't that I was just stupid which when you

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think you're stupid that's quite a depressing thought but when you know you can do it but you just need to have a bit more practice, you just need to have a bit more extra help then it re-assured me that I could do it and the fact that I am now at uni has completely justified that all for me but at the time when I realised that I had a specific learning difficulty from the dyslexia … it was knowing, yes, I had this problem which puts me behind everyone else but it doesn't mean I am going to stay  there I can get back up there because I can do it. (Ned, pilot interview,  8 December 2008)

Many participants described a significant event or 'critical incident' (Sikes et al., 1985) which appears to have acted as a 'turning point' (Newman, 2010, p31), or in Denzin's (1989, p22) terms an 'epiphany', triggering a determination to succeed and very often leading to a deliberate change in strategy and approach to academic work and examinations: a taking control of the learning process.

For some participants - particularly those diagnosed as adults - the diagnosis represented a turning point. However, for many others it was a comment by a teacher or by parents, a reaction to failing an exam or to feelings within themselves. It appeared that many of the incidents described by participants, although rarely spoken about publicly, had been repeatedly re-visited and internalised by them. As I detailed in the previous chapter, comments from Henry's mother suggesting that he would 'be a dustbin cleaner' contributed to his desire to achieve academically, or in his words 'it kind of pushes you' (Henry, phase two interview, 16 June 2011).

Several participants were determined to prove their teachers wrong, demonstrating 'resistance through persistence' (Collinson and Penketh, 2010). Cindy (phase one interview, 23 April 2009) recalled feeling not only upset but also angry when she overheard a teacher predicting that she 'would never get through high school'. Her response was to get 'mad and a little more determined' (Cindy, phase one interview, 23 April 2009). Similarly a headmaster's comment on a school report indicating that 'university is out of the question' spurred John (phase two interview, 17 March 2011) to achieve as 'if someone tells me I can't do something, then I'm more likely to have a crack at doing it'. Similarly, (Seb phase one interview, 11 May 2009) recalled having his hopes of becoming a dentist dashed by a teacher who advised against applying for university because 'she didn't think I was brainy enough'. He described needing to 'prove that I could get a degree' and being 'just adamant because so many people have said that I won't get anywhere academically' (Seb phase one interview, 11 May 2009).

Other participants described experiences that had acted as self-imposed turning points in their academic lives. For Ned it was the experience of performing badly in AS examinations. He described feeling 'stupid again' and decided that this was '*never* going to happen to me again' (Ned, pilot interview, 8 December 2008). He re-sat the year which 'wasn't the easiest decision' in his life but he 'had to make *sure* [he] did it' (Ned, pilot interview, 8 December 2008). Max described low predictions at GCSEs as the 'big turning point', whereas for Sharon (phase one interview 23 March 2009) it was failing the first semester examinations at university which led her to 'up [her] game'. She felt like 'a rabbit caught in the headlights' as it was 'effectively, one more strike, one more go and you've had it … like a stay of execution' triggering a change in her 'strategy and whole perspective' about studying (Sharon, phase one interview 23 March 2009).

Seb explained that ending a relationship with his girlfriend led to him taking control of his learning. He did not want it to be assumed that poor performance in his final exams was caused by the break-up. Seb did not reveal this during the interview but explained to me at some length afterwards. During the interview he explained that he 'just knew' he had to pass, he was 'desperate to pass' and 'adamant' that he was going to do it (Seb, phase one interview, 11 May 2009).

For many students it appeared that rather than one critical incident it was a slow making sense of their difficulties and a taking control of their learning. Keith (phase one interview, 23 March 2009) described this as being 'on a journey – an emotional roller-coaster'. Many participants described a lack of control over their school work. Cindy (phase one interview, 23 April 2009) refers to an 'enforced' strategy and Eric (phase one interview, 12 March 2009) to being 'frustrated with their system' which 'wasn't working' prompting him to 'try[ing] other things'. Similarly, Fiona (phase one interview, 20 April 2009) explained that 'nothing ever worked … it wasn't *my* strategy … they would tell me what to do' and Bridget (pilot interview, 2 December 2008) expressed frustration - 'that's how *they* do it; that is not the way my brain works, that's not the way I can do it'.

Participants described finding their own way of doing things. Max (phase one interview, 27 March 2009) referred to this as 'I've learnt how to learn' whereas Cindy (phase one interview, 23 April 2009) described it as 'I kind of hit my own stride' and Ned (pilot interview, 8 December 2008) explained that 'I've found what's best for me. I know it works for me and I know it gets results'. Similarly the move to HE allowed Fiona the freedom to experiment with strategies and take control of her learning. No longer was she 'told that I needed to learn things from this way of doing things and that if I didn't then I was wrong'; she found she 'started to make progress … could actually learn things (Fiona, phase one interview, 20 April 2009).

Eve (phase two interview, 21 February 2011) prefers coursework because 'It's under my control' whereas Eric, Tim and Max increased their sense of control by choosing specific courses and modules. Eric, who is studying engineering, explained that his passion is military history. He described engineering as his 'second choice in a world where there was a choice'. When I asked if dyslexia had taken away the choice, he responded very strongly:

> It wasn't taken away. I just never allowed it to happen!'. (Eric, phase one interview, 12 March 2009).

**Criteria for a 'sense of control'**

By moving back and forth between my writing and the data, I was able to draw up criteria for a 'sense of control' which I present below. I intend this to be viewed as a continuum rather than as specific domains.

Individuals with a low sense of control tend to:
- perceive control as resting with others - out of control
- experience confusion and bewilderment
- react to negative experiences by avoiding a similar task or situation in future
- lack the inclination to learn from positive experiences
- believe that outcome is independent of effort
- feel different from others and thereby experience separateness
- exhibit learned helplessness, regard that whatever they do makes no difference
- attribute poor outcomes to personal defects and good outcomes to luck or ease of task
- use 'their' (other people's) strategies and 'their' (other people's) way of doing things
- avoid choice and making decisions
- have negative outcome expectations
- experience low academic self-esteem
- display a low sense of academic agency - low efficacy and feelings of academic competency

Individuals with a high sense of control tend to:
- perceive control as resting with the individual - *they* are in control
- believe everything they do makes a difference
- have positive outcome expectations

- attribute positive outcomes to personal effort
- view outcomes as response-contingent
- learn quickly from experiences - both positive and negative experiences
- make choices and take decisions
- be proactive
- experience high academic self-esteem
- display a high sense of academic agency - high efficacy and feelings of academic competence.

Using these criteria I have placed each participant in an approximate position on the 'sense of control' continuum. This is illustrated in figure 5.2 where the arrow indicates a growing sense of control. In Figure 5.3 I have combined the two dimensions: sense of control and strategies.

**Sense of Control**

Ned
Max

John

Eve
Seb

Fiona
Cindy

Sharon

Eric
Henry

Tim
Bridget

Keith

Tracy

**Figure 5.2. Positioning participants on the 'sense of control' continuum. Arrow indicates low to high sense of control**
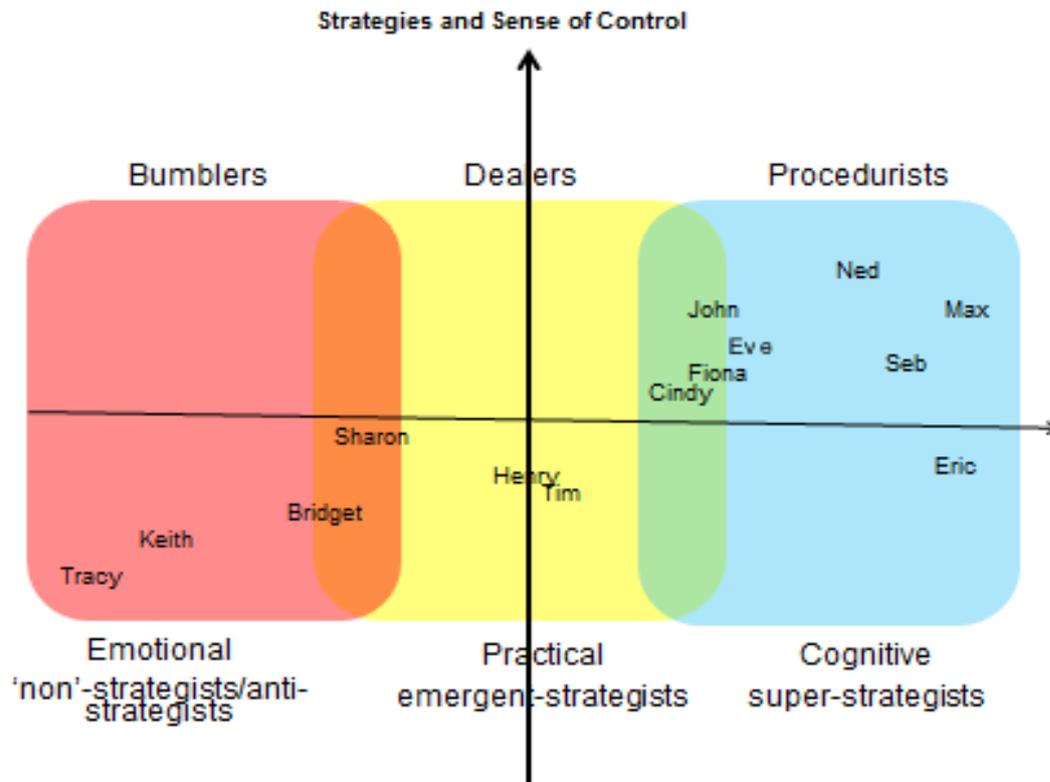
**Figure 5.3. Combining the two dimensions: positioning participants along their dominant strategy typology combined with their position on the 'sense of control' continuum**

In Figure 5.4 I have added a learning trajectory on the bi-dimensional diagram to illustrate progression both along the strategy continuum and the sense of control continuum.
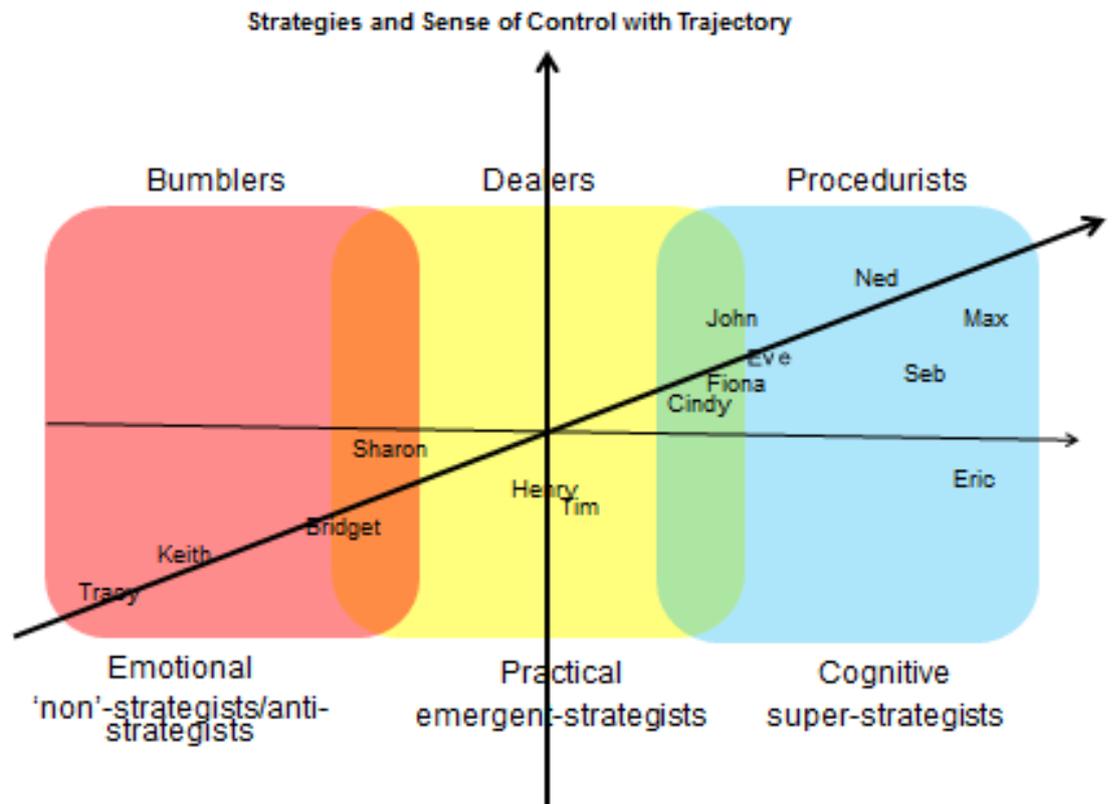
**Figure 5.4 Illustrating strategy/control trajectory**

It appears that as participants gain an increasing sense of control over their academic lives they also move along the strategy continuum. Eric is the most notable exception. He is atypical in that he appears to have developed a Procedurist approach but his sense of control remains relatively low in comparison with other Procedurists among the participants. I discuss this in the following chapter.

## Summary

By employing thematic analysis and data-driven coding I have brought together connective threads in the participants' stories and drawn up three indigenous typologies as thinking tools to describe participants' revision strategies: Bumblers, Dealers and Procedurists. The three overlapping typologies represent a strategy continuum. In general, as participants gain a sense of control over their academic lives they move along the strategy continuum. The increasing sense of control appears to be influenced by a

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number of factors including a diagnosis of dyslexia, comments made by significant others or a critical incident which has acted as a turning point.

In the next chapter I discuss my findings in the light of relevant concepts and previous research and explore the implications for practice.

# Chapter Six: Discussion and Conclusions

## Introduction

In the previous two chapters I presented the detail of my findings and analysis. In this chapter I explore my findings in relation to relevant concepts and in the light of existing research. I discuss the implications of my findings for policy and practice in HE alongside the limitations of my study. Finally, I make a personal reflection on my research journey including the ethical dimensions of my study and directions for further research. I begin by returning to the overall research aims and my findings.

## Overview of the study and my findings

In the introduction to my thesis I described the contextual background to my study including the recent changes in policy which have led to a marked increase in the number of dyslexic students entering HE. Although this increase has prompted growing research into dyslexia in HE when previously it had largely focused on school children, little research has addressed the experience of HE from the students' perspectives - in their own voices. Dyslexic students are competing within a HE culture that privileges assessment by the written word which means that, in the main, they are assessed within the mode of their difficulty. Examinations and assessment are of central importance to students; they dominate university life and can have far-reaching consequences for future career prospects. The overarching aim of my study was to explore dyslexic students' experiences of examinations in HE from their perspectives.

Dyslexic students are not a single population and there is no single answer to the question of how they revise for examinations. As I have detailed in Chapter Five, participants described strategies which could be grouped into three broad, overlapping categories: emotional; practical; cognitive. Although participants described strategies under all three categories, I was able to place each individual along a strategy continuum according to his or her dominant strategy. A second dimension of my findings I described as a 'sense of control' - the participants' feelings of control over their learning and their academic lives. In general, my findings indicate that as dyslexic students gain a sense of control over their academic lives they move along the revision strategy continuum from an initial emotional reaction to exams (emotional 'non'-strategists/anti-strategists) through a stage of dealing with exams in a practical way and experimenting with strategies (practical emergent-strategists) to a final metacognitive stage where they have found a system, method or procedure that works for them (cognitive super-strategists).

Taking descriptive terms from the participants' own words, I named the three overlapping strategy typologies Bumblers (emotional 'non'-strategists/anti-strategists), Dealers (practical emergent-strategists) and Procedurists (cognitive super-strategists). Each individual's journey along the strategy and sense of control trajectory appears to be influenced by a range of factors including the diagnosis of dyslexia (and its timing), comments made by significant others or a critical incident which acted as a turning point.

My findings indicate that participants who had progressed along the strategy and sense of control trajectory did appear to use very specific strategies when preparing for exams. These strategies enabled them to achieve high marks and also to feel confident in their ability to perform well. However, many participants - indeed, the majority - were still on the journey. In drawing together the connective threads in the participants' stories a number of key themes emerged. Firstly, I explore themes relevant to my first two research questions which relate to the strategies; secondly, I explore themes relevant to the latter two research questions which relate to influences on the development of the strategies and participants' feelings about exams.

**Dyslexia determining choice of subject**

As noted in earlier research (Hanafin et al., 2007, Fuller et al., 2004b, Riddell et al., 2004), it was clear that all participants felt disadvantaged by an examination system which privileges the written word as a means of assessing competency. All participants were allowed the 'standard' reasonable adjustments in the form of extra time and a separate room with other students receiving extra time; in addition, one participant was allowed to use a computer (with the spell-checker and grammar checker disabled). These special arrangements were a means of helping the students cope with an essentially unchanged process where they were assessed through their mode of difficulty. Echoing the work of Fuller et al. (2004b) and Healey et al. (2006a), almost one third of the participants indicated that the mode of assessment had influenced their choice of subject and modules within the subject. Participants displayed a marked preference for modules with oral, practical and coursework elements rather than those assessed entirely by timed, written exams. Reflecting the current debate surrounding modes of assessment, it was clear that participants valued and were more engaged with assessment modes which they perceived to be 'authentic' and mirrored skills and abilities that would be required in the workplace. However, there was no evidence of the availability of any flexibility in mode of assessment: participants were able to exercise choice only by opting to study particular modules or subjects rather than by choosing from a range of assessment modes within a module or subject.

**Time**

My findings support dyslexic students' difficulties with time as a recurring theme including time completing fieldwork tasks (Hall and Healey, 2005), the 'additional time and stress' accessing support and information (Holloway, 2001, p602) and time spent learning how to use technology supplied as part of the DSA (Seale et al., 2008). Consistent with the findings of earlier research (Fuller et al., 2004b, Mortimore and Crozier, 2006, Hall and Healey, 2005), all participants mentioned problems managing the reading requirements of the course. Lack of automaticity with literacy skills alongside limited working memory capacity and slow processing inevitably affect dyslexic students' ability to recall information and express their ideas in writing in exams. However, it is clear that not only does lack of automaticity in basic literacy skills have an impact during exams but also in preparing for exams. Participants were found to respond in a range of ways. Procedurists (cognitive super-strategists) started early - often before the first lecture; they reduced the reading requirements by recording lectures, using interactive websites, discussing topics with peers and enlisting the support of postgraduate students, former teachers, and, in one case, a 'coursemate' to access written information speedily. Above all, Procedurists were organised. They displayed a desire to use every means available, such as past exam papers and course handbooks, to gain a clear picture of the task; they were concerned with understanding and tended to adopt a 'deep approach' (Marton and Saljo, 1997, Biggs, 1987) to learning - striving for conceptual change rather than merely the acquisition of facts - so that when they were required to use the information in a different format or to solve a problem they were able to do so. Participants adopting this approach described a desire to make connections between topics and to link new information and concepts with prior knowledge and with personal experience; their aim was to gain an overview of the course - described by Biggs and Tang (2011, p26) as the 'big picture'. Procedurists among the participants indicated a desire to develop both 'declarative knowledge' and 'functional knowledge' (Biggs and Tang, 2011, p81): they were concerned with understanding concepts and being able to apply them in new situations. Procedurists tended to express pleasure in the learning process despite issues with time and literacy.

Adopting a different approach, Dealers (practical emergent-strategists) among the participants described dealing with the time element by taking a strategic risk, reading selected material and learning only selected content. Past papers were used to 'question spot' rather than to gain an overview of the course. In general, Dealers were aware that understanding was preferable to memorising but adopted strategies consistent with a 'surface approach' (Biggs, 1987, Marton and Saljo, 1997) as a means of covering material within a finite period of time so that they could 'regurgitate' it in an exam. These strategies were often unsuccessful and led to them feeling anxious, stressed and out of

control. In contrast, Bumblers (emotional 'non'-strategists/anti-strategists) among the participants appeared unconcerned with the time element and tended to use lack of time as a reason for doing very little.

**Rote learning**

In marked contrast with previous research (albeit not including dyslexic students) which indicates that a student's approach to learning is dynamic and can be varied according to his or her perception of the assessment requirements (Prosser and Trigwell, 1999, Biggs and Tang, 2011, Marton and Saljo, 1997), this did not present as the case for most participants in my study. Whereas it has been suggested that students might sacrifice intrinsic interest and a desire to understand for the extrinsic reward of gaining high grades by adopting an 'achieving' (Biggs and Tang, 2011, p36) or 'strategic' (Entwistle, 2001) approach in response to the context and content of the exam - combining deep learning of selected content with rote learning - this did not appear to be an option for dyslexic students in my study. Indeed, all participants described difficulties with rote learning, as has been noted in earlier research (Desmet, 2007, Singleton, 1999). Bumblers among the participants tended to express a 'don't care' attitude, Dealers sometimes took a strategic risk and attempted to rote learn (usually unsuccessfully) selected content to save time but became very stressed and anxious, while Procedurists expressed some frustration when the assessment format sometimes appeared to require them to rote learn elements of the course. Certainly, most participants appeared to resent exams which they perceived as favouring students who were able to 'play the examination game' (Miller and Parlett, 1974) by rote learning soon-to-be-forgotten selected material and 'spraying it out' in the exam. Characteristically, Procedurists would adopt a deep approach underpinned by understanding and conceptual change whatever the format of the exam and felt disadvantaged if the examination questions required memorising rather than understanding. Dealers among the participants tended to favour alternative forms of assessment such as practical work, presentations or vivas where they felt understanding would be tested and where the assessment task would more accurately reflect the intended learning outcomes - referred to by Biggs and Tang (2011) as 'constructive alignment'.

**Feedback**

There is evidence in the literature that the 'onset of mass higher education' has led to a 'groundswell of student discontent with feedback' (Hounsell, 2007, p102). Certainly many participants in my study expressed concern about feedback on their work. My findings add to earlier research (e.g. Hanafin et al., 2007) which indicates that many participants experience a lack of understanding of dyslexia among lecturers. Several participants

mentioned the value of constructive feedback from lecturers and tutors and the futility of inadequate feedback which directed attention at their dyslexic difficulties and criticised the presentation of their work including spelling and grammar rather than focusing on the content of their work.

**Note-taking**

In line with earlier research (Hughes and Suritsky, 1994, Mortimore, 2006, Weedon and Riddell, 2005), most participants described difficulties note-taking at speed in lectures. As lecture notes are considered to be the 'currency' (Hanafin et al., 2007, p440) for revision, easy access to them is crucial. However, in contrast with earlier research, which has indicated reluctance by lecturers to provide access to notes in electronic format before the lecture (Weedon and Riddell, 2005, Weedon and Fuller, 2004, Hanafin et al., 2007, Riddell et al., 2005a), not one participant mentioned this as a problem. Indeed, rather than the 'grace and favour' (Hanafin et al., 2007, p440) arrangement previously described for dyslexic students, participants welcomed this as an inclusive facility open to all students. In some cases entire module notes were provided at the start of the topic; a provision which many participants (most particularly Dealers who continue to struggle with organisation) indicated was especially helpful.

Many participants explained that they were able to concentrate their efforts on listening during the lecture rather than attempting to take notes. Indeed, Bumblers among the participants described listening during lectures as their main or sole means of preparing for exams. On the other hand, Procedurists among the participants described working on lecture notes before the lecture so that they were able to ask questions during the lecture and make sure that they had understood concepts at the time they were taught; they employed this strategy as a means of being time-efficient, ensuring firm foundations for future lectures and forging connections between topics. Most importantly, the provision of lecture notes was available to *all* students and was therefore not perceived as an adjustment or a special arrangement for dyslexic students - although all recognised that it was particularly crucial for them. Whereas previously there appeared to be a perception that providing lecture notes might restrict lecturers' creativity or represent a 'dumbing down' (Riddell et al., 2005a, p92) this did not appear to be the case in the present study.

**Recording lectures**

Similarly, in contrast with earlier research which suggested some variability in the opportunity to record lectures and an unwillingness of lecturers to allow this (Weedon and Riddell, 2005, Fuller et al., 2004b) or lack of awareness about the availability of the

resource (Mortimore and Crozier, 2006), all participants were aware that recording lectures was allowed and freely available. Most Procedurists and many Dealers among the participants made extensive use of recordings; many kept a 'library' of past lectures on their computers and used them in conjunction with lecture notes to promote understanding. Two participants (both within the Bumbler group) explained that they did not record lectures as they could not afford the time to listen to the recordings. In addition, one participant explained that although he felt that recordings would be a useful resource he avoided using a recorder in lectures as he felt that it might reveal his dyslexia to peers and he did not wish to appear 'special' or 'different' from other students. A reluctance to declare a disability is discussed later in this chapter.

**Dyslexia and 'labelling'**

Confirming existing evidence (Riddick, 1996, Riddick et al., 1997), it was clear that all participants found identification of dyslexia helpful at a personal or private level, although often less so at a public level. For the majority of those identified as adults the diagnosis appeared to provide an explanation of their difficulties and an opportunity to reframe their perceptions of themselves as learners - a reconceptualisation which has been found to be an important component of success (Gerber et al., 1996). However, for most participants who were identified at a young age this proved to be a double-edged sword: it provided an explanation - and sometimes an excuse - for their difficulties and was often the precursor to additional support and allowances such as extra time in examinations but at the same time it often meant that the individual was separated from peers both physically and emotionally. Some participants described being excluded from activities to spend extra time on literacy-based learning whilst others described a physical separation to a unit or area associated with remedial learning: being assigned to the 'bench of the ignorant' (Foucault, 1991, p179). In line with earlier research (Collinson and Penketh, 2010) and consistent with the notion of 'stigma' and a 'spoiled identity' (Goffman, 1968), such separation, seemed to engender negative feelings and later on a desire to avoid appearing 'other' in HE.

As found by Riddick (1996) and Riddick et al. (1997), it was clear that some participants had been ridiculed or stigmatised when young, not because of the dyslexia label but because of their inability to perform at the level of their peers and the taken-for-granted correlation between intelligence and good literacy skills. Several participants described being motivated to take control of their learning and reach HE to prove they could achieve academically despite low expectations from teachers and comments by important people in their lives who had suggested otherwise. These findings add to and support Collinson and Penketh's (2010, p15) notion of 'resistance through persistence' which they suggest defined the six dyslexic academics who had gained tertiary qualifications in their study.

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Although, it has been found that motivation stimulated in this way sometimes leads to individuals denying themselves access to support (McNulty, 2003), it appeared that, in the main, negative comments by others acted as a catalyst encouraging participants to garner all possible support to achieve their aims. Nevertheless, many participants, particularly those identified in their school years, described some resistance to appearing different from other students once they had reached HE.

**Interactions with peers**

Many participants, particularly those whose dyslexia was identified in their school years, described some resistance to appearing different from other students once they had reached HE. Although several described the importance of supportive relationships and interactions with peers who were aware of their difficulties, in all cases this was restricted to a small number of close friends. It was clear that several participants benefited from working collaboratively with one particular peer; this often reduced the need to read volumes of text and also helped to develop understanding of concepts reflecting the current research (e.g. Falchikov, 2007) indicating the benefit of assessment modes which actively encourage collaboration and dialogue between students. However, in the main, participants indicated a reluctance to disclose their difficulties; they described a 'don't ask, don't tell' attitude, avoided situations which might expose their lack of automaticity with literacy skills or difficulties with pronunciation and appeared self-conscious about additional support. Unless, as advised by McDowell and Sambell (1999), students are given choice and control in the mode of assessment, innovative forms of assessment may be just as discriminatory as the original.

As indicated elsewhere (Borland and James, 1999), the move to HE constitutes a major step in the personal and social identity of all students; this may be a particularly crucial step for dyslexic students. Dyslexia is a hidden difference and the student can choose whether to disclose or not. However, the dominant discourse which privileges the written word as a form of assessment means that dyslexic students are being examined through the mode of their difficulty. As has been found elsewhere (Watson, 2002), there was clear evidence that participants did not regard themselves as disabled; nevertheless, in order to receive reasonable adjustments in examinations (and also resources supplied through the DSA), it was necessary for them to take on a disabled identity within HE. Paradoxically, in HE, dyslexic students must identify themselves within a category that stems from the medical model of disability where impairment is perceived as a deficit at the individual level rather than as Oliver (1990) among others has argued as a social construction arising from disabling practices within society.

## Sense of control

In Chapter Five I gave details of the criteria for placing the participants along the sense of control trajectory. In the main this covered the more affective elements of my study - students' feelings about exams and the influences on the development of their strategies. Three themes dominated these questions. Firstly, despite difficulties with literacy skills all participants held a firm internal belief in their own academic competence. Secondly, most participants described a critical incident which had acted as catalyst or turning point firing a determination to achieve academically. Thirdly, all participants who had progressed rapidly along the strategy and sense of control trajectory described a desire for autonomy - a need to take control of their learning and develop their own way of doing things. The participants' desire for a sense of control over their academic lives lends support to the argument for flexibility and choice in the mode of assessment. Whereas traditional examinations in the form of timed written assessments have centred control with examiners, it is argued that modes of assessment which shift control to students (such as peer assessment, self-assessment and oral examinations which include students themselves in the evaluation process) stimulate student engagement, develop students' abilities to monitor their own learning and promote life-long learning (Irwin and Hepplestone, 2012).

## Emotional impact of dyslexia

My findings support the growing body of evidence indicating the negative psychological and emotional effects of dyslexia on young people in the school years where the dominant value system operating is proficiency with the written word (Edwards, 1994, Burden, 2005, Gwernan-Jones, 2012a, Riddick et al., 1999) and also evidence that the impact of these negative experiences is carried into adulthood (Hughes and Dawson, 1995, McKissock, 2001, Pollak, 2005). All participants in my study described feeling bewildered, confused and frustrated by their school experiences and their inability to acquire the prized literacy skills that others seemed to grasp with ease. They saw themselves mirrored in others' judgements (Strauss, 1977) and used derogatory terms such as 'stupid', 'thick' and 'incapable' to describe themselves and it was clear that from an early age they compared their performance with that of peers. It was also evident they were aware that parents and teachers were making comparisons; many described resorting to disruptive behaviour, avoidance, cheating or channeling energies into non-academic tasks as a way of coping; for some, incidents involving humiliation or embarrassment had left a lasting crease.

From the social constructionist perspective an individual's sense of self is continually refined as a result of interactions with others - most particularly significant others - often referred to as the 'looking glass' self (Cooley, 1912, James, 1890/1950). Nevertheless, despite interactions reinforcing the dominant cultural discourse which defines academic ability in terms of literacy, the inability to perform at the level of their peers and low expectations from teachers and other important people in their lives, a common theme running through all participants' stories was a firm belief in their own academic capabilities. This finding echoes earlier research (Dale and Taylor, 2001, Cooper, 2009, Collinson and Penketh, 2010) and is consistent with the Shavelson and Bolus (1982) model which suggests that self-concept is hierarchical and multi-faceted - reflecting multiple dimensions of the individual's life. Although given the centrality of literacy within the school curriculum it might be expected that weak literacy skills would inevitably have an impact on all areas of academic self-concept, there was ample evidence that many participants were able to separate their low literacy self-esteem (feelings about their self-concept) from their overall academic self-esteem; they were progressively able to make quite different self-evaluations and hold different beliefs about their capabilities across separate domains. As earlier research has suggested, self-esteem and self-concept appear to be developmental and increasingly differentiated (Coopersmith, 1967, Ingesson, 2007). This was particularly apparent for those who had chosen to study science and engineering and Procedurists among the participants who had developed a high sense of control; they were no longer concerned about literacy - it was merely one component of their make-up - a component they had learnt to deal with; thus supporting the view that it is only when a skill is deemed important or valued by the individual that it continues to have an impact on self-esteem (James, 1890/1950, Burden, 2005).

**Turning point**

All participants described feelings consistent with negative attributions and learned helplessness (Abramson et al., 1978) in their early school lives; they perceived that whatever they did made no difference, they were unable to learn and perform as others did with apparent ease. Nevertheless, although initially many appeared to attribute failure to personal deficits, it was clear that they held a firm belief in their own ability. Many participants described a significant event or 'critical incident' (Sikes et al., 1985, p57) that had acted as a 'turning point' (Newman, 2010, p44, Strauss, 1977, p93) or 'epiphany' (Denzin, 1989, p22) triggering a determination to succeed. The significant event appeared to take one of two forms. For some participants - particularly those identified as dyslexic in adulthood - it was the identification of dyslexia which represented a turning point and an opportunity to reframe their view of themselves as learners. This is consistent with Riddick's (2000) findings and with Gerber et al.'s (1992) model which

considers reframing to be a 'trigger mechanism' leading to increased control as individuals' awareness of their strengths and weaknesses allows them to factor this into the challenges they face. On the other hand, for many participants it was negative comments by teachers or parents or a reaction to failing exams which acted as a turning point; however, rather than a personal reframing these critical incidents appeared to lead to a determination to reframe others' views - an 'I'll show you' (McNulty, 2003, p373) attitude. A powerful internal impetus to succeed appeared to play a pivotal role in participants taking control of the learning process. In general the strategy development occurred in tandem with an increasing sense of control although it appears that the most crucial dimension is the sense of control. Eric represents an anomaly who illustrates this principle: although he had moved along the strategy continuum his sense of control remained relatively weak and he continued to feel very anxious and stressed by exams. He spoke of his marked difficulty with rote learning and his perception that the format of the exam often required rote learning and memorising rather than understanding.

Above all, participants spoke of a need to personalise their learning, especially when strategies taught by others which appeared to work well for peers did not work for them. Although, as discussed earlier, there are many commonalities in the behaviours adopted by Procedurists, the most overwhelming commonality is that the strategies were their own.

## Implications for policy, provision and practice

My findings make an original contribution to knowledge about dyslexia and its impact on students' experiences of preparing for examinations in higher education. By providing 'thick description' and contextual information, transferability of my findings to other HEIs is possible and will have implications for policy, provision and practice and also for practitioners in the dyslexia field. In the following section I discuss my findings from the institutional perspective followed by the practitioner perspective.

In the last two decades, since the National Working Party Report on Dyslexia in Higher Education (Singleton, 1999) was published, the number of students declaring specific learning difficulties/dyslexia on entry to HE has increased almost fourfold. Recent disability legislation places the imperative on HEIs to change. No longer can dyslexic students be regarded as the sole responsibility of specialist support services but instead the onus is on institutions to embed inclusive practice at a strategic level and reflect their needs in the institutional culture and ethos. Indeed, universities have an anticipatory duty to be inclusive and flexible in both curriculum design and in assessment methods; it is recommended that students are involved in the review of inclusive practice and that a

range of assessment methods should be available as 'a matter of good practice' so that all students have an opportunity to demonstrate they have met the intended learning outcomes (Quality Assurance Agency for Higher Education (QAA), 2010b, section 3, precept 12, p25).

Dyslexic students in HE undoubtedly challenge the 'institutional habitus' and 'cultural arbitrary' (Bourdieu and Passeron, 1977, p31) which privileges the written word and associates traditional forms of assessment with scholarship. However, in response to government legislation and widening participation initiatives, HEIs now have a much more diverse student population which has been reflected in a need to rethink teaching, learning and assessment and embed inclusive practice at a strategic level. It is important that the experiences and perceptions of dyslexic students are at the heart of the current assessment debate; my study contributes this insight and adds their voices to the debate. Provision for dyslexic students might be seen as an index of inclusive practice since practice that is beneficial for dyslexic students is generally good practice for all students.

I described the participants' HEI in some detail as this is their learning environment and the backcloth to their experiences. Despite a commitment by the HEI to inclusive practice and a culture which values and welcomes diversity, tensions arise between written policy and practice. It is clear from my findings that significant changes have taken place in attitudinal barriers to inclusive practice over the last five years in some areas such as the provision of lecture notes; for instance, it is now common practice for lecture notes to be provided - usually in electronic format and usually before lectures - for *all* students rather than as an *ad hoc* arrangement for dyslexic students. However, examinations and providing flexibility and choice in the mode of assessment remain more contentious.

Although research indicates that assessment can act as a powerful tool *for* learning and a greater range of  assessment modes has now come into currency, in practice, flexibility in assessment mode remains limited and the assumption that conceptual understanding can be measured best by performance in written examinations appears endemic. Assessing dyslexic students within the medium of their difficulty epitomises the social model process of disabling people: the dominant discourse which privileges the written word as a form of assessment transforms a difficulty into a disability.

My findings indicate that examinations which test memory rather than understanding and encourage students to rote learn information further disadvantage and disable dyslexic students. Dyslexic students' sense of control over their learning was found to be a crucial factor; however, although innovative modes of assessment, such as peer and self-assessment, have been shown to be beneficial to learning and to shift control from

examiners to students as well as promoting life-long learning, traditional examinations continue to dominate and represent 'the lion's share' (Race, 2007, p37) of assessment. Assessment practice is created not given (Hanafin et al., 2007); it is the result of decisions taken at institutional, faculty or departmental level. Despite recent changes in legislation, additional time rather than any modification or flexibility in the assessment mode continues to be the most prevalent reasonable adjustment and is indicative of an attempt to assimilate dyslexic students into an essentially unchanged system. Paradoxically, although inclusive practice is underpinned by understandings of the social model of disability, dyslexic students are required to succumb in some way to the medical model of disability to access additional support and reasonable adjustments. Inclusive assessment in the form of variety and flexibility in the format of assessment and, most importantly, choice in the mode of assessment for all students would reduce the need for reasonable adjustments and additional support as well as shifting control to students. It is dependent on transformation of existing practice rather than an attempt to assimilate a diverse range of learners into an essentially unchanged system. My study provides important context for this transformation to take place.

My findings also have implications for specialist practitioners who support dyslexic students in HE. Although some important first steps have been taken towards encouraging HEIs to consider more flexibility and choice in assessment and much more is known about the impact of assessment on student behaviour, practitioners must inevitably work within the system as it is. Dyslexic students remain not only more likely to withdraw from HE but also more likely to achieve lower grades than their peers (Richardson and Wydell, 2003). Dealers among the participants, the emergent-strategists, appear most at risk and described feelings consistent with a relatively low sense of control. By encouraging Dealers to adopt cognitive super-strategist (Procedurist) approaches, it might be possible to facilitate their progress along the control and strategy trajectory.

**Limitations**

In framing my analysis I was mindful that my interpretation was but one of many possible interpretations. I did not arrive 'naked before the text' (Bruner, 1991, p17) but was inevitably sensitised to a range of concepts as well as subject to my own biases and taken-for-granted assumptions. In addition I acknowledge a number of limitations inherent in my study which I discuss here.

The participants were self-selecting; they were neither representative of dyslexic students in general nor were they necessarily representative of dyslexic students within the chosen

university. Although all the students registered with the dyslexia support service at the university were invited to take part only twenty three responded to my email, nine of whom did not meet the inclusion criteria or were unable to complete the interviews. All participants had therefore chosen to declare their dyslexia to the university and had also volunteered to talk about their experiences with exams. Participants gave a variety of reasons for volunteering to take part: some had purely altruistic motives such as a desire to give something back to the dyslexia support service (Keith, Tracy, Eric, Bridget, Ned); others wished to know more about revision (Sharon, Henry) whilst others felt they had worked out such a good strategy that they wished to share it with others (Max, Seb, Tim). My study was also restricted to one HEI, a pre-1992 Russell Group university and all participants spoke English as their first language. Although this might appear to restrict the findings, limitations were reduced as several participants had entered university through non-traditional routes. Four participants had taken advantage of widening participation initiatives (Sharon, Tracy, Keith and Bridget) whilst three already held degrees and had entered as mature students via a range on non-traditional paths (John, Cindy and Seb).

I was also mindful that authors such as Waterfield and West (2006a), Madriaga et al. (2010) and Mortimore and Crozier (2006, p237) consider that it is important to compare the experiences of dyslexic students with students who have not been identified as dyslexic since 'higher education makes demands on all students'. I believe this to be a valid perspective and may be the subject of further research. However, in the main, the body of research into HE and assessment has omitted the voices of dyslexic students; my aim was to explore the experience of examinations in HE from the particular perspectives of dyslexic students rather than to engage in a comparison.

**Ethical concerns and a personal reflection on my research journey**

Throughout the research process the ethical principle underpinning my approach has been that I should do no harm. In Chapter Three I described the strategies I put in place to address ethical issues including avoiding coercion, maintaining confidentiality and ensuring informed consent and the right to withdraw. Interview transcripts were sent to all participants and, without exception, all participants confirmed after the interview that they were happy for me to use the material. However, I did not anticipate the powerful and, in some cases, deeply moving and personal stories the participants would share with me, particularly during phase two participant-led interviews where conversation was stimulated by photographs taken by the participants. From my role in the university and as the mother of dyslexic children, I was not surprised by the participants' stories but I was surprised by their openness. In presenting the findings I have endeavoured to

anonymise accounts by omitting (or altering) some biographical details which might identify participants while at the same time retaining crucial contextual information which is important to the individual stories.

Not only was I surprised by the participants' openness but also by the impact of the research on my own perspective. My scientific background meant that as I began my research journey my view was inevitably tinged by a positivistic outlook and its implicit objectivist assumptions. However, my perspective quickly changed. I soon came to appreciate the qualitative approach, the impact the researcher may have on the research and the multiple perspectives of reality. I rapidly embraced the epistemological and ontological assumptions more appropriate for social research and for answering my research questions. Conducting this study has represented for me considerable development as a researcher and as a professional.

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# Appendices

## Appendix 1:  Phase One: email sent to all students registered with Dyslexia Support at the university

How do you revise?

Hi

I am one of the tutors at LDC[2] and wonder if you would be interested in helping me with some research I am doing exploring the ways dyslexic students revise for examinations.

The aim of the research is to explore:

how you prepare for exams

what you actually do

whether you use specific tactics or strategies

how you have developed those strategies

whether you have any particular difficulties

how you have overcome any difficulties.

It will involve:

a one-to-one 'interview' (chat) about what you do

perhaps, taking some photographs of your 'work-space' (camera provided)

maybe recording your thoughts (very brief- either with a recorder or in note form) about what you are doing when revising.

---

[2] Learning Differences Centre (LDC). The name was changed to Dyslexia Services in Summer 2009 and to Dyslexia Support in August 2011.

I want to capture your experience and hope that what I learn will help me to support other dyslexic students.

All contributions will be anonymised and if you decide to drop out at any time, that will be fine.

If you feel that you might like to help and would like more information, could you please reply to this email or phone LDC (number provided) with your contact details and I will give you a call.

Many thanks

Jane

# Appendix 2: Instructions for cultural probe

(enclosed in a plastic wallet with a disposable camera and a small note-book)

- ❑ Could you please take photographs of anything that you feel is important to you when revising?
- ❑ If you have time, perhaps you could make a note in the log book to let me know something about what you have photographed and why.
- ❑ Please drop the camera and log book off at Dyslexia Services anytime you are passing.

Thank you very much indeed for taking part in my research study.

Jane Lapraik

# Appendix 3: Ethics Protocol Guidance Form

This guidance has been developed to assist you in drawing up an ethics protocol for a research project or bid for research funding. You are advised to also look at the following materials provided by the School of Education Research Ethics Committee, which are available on the School of Education Website:

- Student/Staff Research: Ethics Review Checklist
- Ethics Review Procedure Flow Diagram
- Ethics Reading List

The Revised Ethical Guidelines for Educational Research (2004) published by the British Educational Research Association are also useful (available on their website at http://www.bera.ac.uk/publications/guides.php).

## A.    CHECKLIST

| HAVE YOU THOUGHT ABOUT HOW YOU WILL ADDRESS: | YES | NO |
|---|---|---|
| 1.    your responsibilities to the **participants** | yes | |
| 2.    your responsibilities to the **sponsors** of the research | n/a | |
| 3.    your responsibilities to the community of **educational researchers** | yes | |

| HAVE YOU CONSIDERED HOW YOU WILL: | YES | NO |
|---|---|---|
| 4.    fully inform participants about the nature of the research; | yes | |
| 5.    ensure participants agree to take part freely and voluntarily; | yes | |
| 6.    inform participants that they can withdraw freely at any time; | yes | |
| 7.    justify deception of participants if this is necessarily involved; | n/a | |
| 8.    offer protection for any vulnerable participants or groups in your study; | yes | |
| 9.    manage the differential 'power relationships' in the setting; | yes | |
| 10.   avoid any pressure on participants to contribute under duress or against their free will; | yes | |
| 11.   guarantee that any research assistants or support staff involved in the project understand and adhere to the ethical guidelines for the project; | n/a | |

| HAVE YOU CONSIDERED: | YES | NO |
|---|---|---|
| 12.   what procedures to set in place to ensure a balance between a participant's right to privacy and access to public knowledge; | yes | |
| 13.   how best to provide anonymity and confidentiality and ensure participants are aware of these procedures? | yes | |
| 14.   the implications of the Data Protection Act (1998) particularly in respect to the storage and availability of the data. | | |
| 15.   disclosure of information to third parties and getting permission from the participants to use data in any reports/books/articles. | yes | |
| 16.   how you are going to inform the participants of the outcomes of the research; | yes | |
| 17.   how to handle any conflicts of interest arising from sponsorship  of the research e.g. a chocolate company sponsoring research into child nutrition, or your own vested interests if any; | n/a | |
| 18.   how you will protect the integrity and reputation of educational research. | yes | |

Having considered these questions draw up specific procedures for how you will handle the collection and dissemination of data in your research study.

## B.    ETHICS PROTOCOL

**Ethics Protocol** (Please provide details here of the ethics protocol for your research and append your Consent form and Participant Information sheet)

**1. Fully inform participants about the nature of the research**

Addressed through discussion with participants and Information Sheet (taking into account specific

literacy needs of participants)

**2. Ensure participants agree to take part freely**

Addressed through Informed Consent Form and discussed with participants

**3. Inform participants that they can withdraw freely at any time**

Addressed through Informed Consent Form and discussed with participants

**4. Manage the differential 'power relationships' in the setting**

Addressed through anonymity

**5. Avoid any pressure on participants to contribute under duress or against their free will**

Right to withdraw will be stressed in Informed Consent Form and at every stage of the

Research. It will be made clear that participants can take part in interviews only if they wish.

**6. Ensuring participants are aware of how anonymity and confidentiality will be dealt with**

Addressed through Information Sheet, Informed Consent Form, discussion with participants and

adherence to Data Protection Act (1998)

**7. Disclosure of information to third parties and getting permission from participants to use data**

Addressed through Informed Consent Form and discussed with participants

# Appendix 4: Phase One: Information sheet

Thank you very much for agreeing to help me with my PhD research project exploring the ways in which dyslexic students revise for exams.  I hope to be able to unravel what you actually do when you are revising and how you have developed any strategies you might be using – maybe you were taught them at school, maybe you have used trial-and-error to arrive at an approach that works for you, maybe you have read study guides or accessed one of the university websites, maybe you have come along and had tutorial support at LDC or perhaps something else.

Participating in the research will involve:

- ❑ One or two one-to-one interviews – I would like to record these – you will be able to see and edit the transcripts, if you wish
- ❑ Taking some photographs of your work-space when you are revising (camera provided)
- ❑ Audio-recording or writing a brief log of what you are doing, why – what's difficult and what works and how you feel about it

I would also be very grateful if you could let me see any 'artifacts' that help you with your revision (e.g. mindmaps, index cards flow-charts etc.).

If you feel that you would like to participate in interviews only, that is fine.

You will be free to withdraw from the research project at any point.

If you **do** want to take part, could you please:

- ❑ Indicate 'do' and circle 'yes' or 'no' as appropriate on the consent form
- ❑ Sign the consent form
- ❑ Bring it with you when you come along or drop it in at LDC at 45 University Road.

If you have decided that you don't want to take part, could you indicate this on the consent form.

The project is committed to and will abide by the terms of the Data Protection Act.  All the original unedited and potentially identifiable contributions will be stored on a password-protected computer and deleted after completion of the project.

The research is part of a PhD at the university [removed names to anonymise].  My supervisor is R Jane Seale; her email address is [removed to anonymise] and her phone number is XXX

# Appendix 5: Phase One and Phase Two: Consent Form

Having read the Information Sheet, I have decided that I **do/don't**[*] want to take part in the research.

| | |
|---|---|
| I have read the information sheet and had the opportunity to ask questions about the research project. | YES/NO |
| I understand that my contribution to the research (interviews, photographs, audio diary/log book, artefacts) will be anonymised and that my name will not be associated with my contribution in any way. | YES/NO |
| 1. I understand that interviews will be recorded and transcribed. | YES/NO |
| I understand that I will be able to see and edit transcribed interviews, if I wish. | YES/NO |
| I understand that I am free to withdraw from the research project at any time. | YES/NO |

2. **Name**.................................................................................

**Signature**..........................................................................

**Date**.....................................................................................

---

[*] Please delete as appropriate

# Appendix 6: Phase One: Interview Protocol

**The research questions**
1. How do dyslexic students revise for timed, written assessments?
2. Are specific tactics or learning strategies used?
3. What has influenced the development of those strategies?
4. How do dyslexic students feel about the experience of examinations?

Background information (such as age, gender, full diagnostic assessment, course studied, year of course, etc.) on each student will already be available.

Format of interview is semi-structured – encouraging students to talk freely about their strategies using main questions, follow-up questions, prompts and probes. (Prompts are given in parenthesis).

**Briefing before the interview**
Interviewee will be given a recap on the purpose of the interview, its context within the research, the type of questions that will be asked and the approximate length of the interview. Permission to make an audio recording and to take some notes will be confirmed. Interviewees will be invited to ask any questions before the start of the interview.

**Early memories of learning/revising**
1. Can you think back to when you first had to learn something – maybe when you were quite young – perhaps at primary school? Can you tell me how you went about it......what did you do?  (it might have been for a school end-of-year test or a spelling test …)
2. Were you shown ways of revising?  (what about … teachers, friends, parents?)
3. Were you successful? … did the strategy/ies work?
4. When you were quite young, how did you feel about having to learn and remember information? (easy… fun … difficult … stressful)
5. Did you use the same strategies when you had to revise for more important exams such as GCSEs … A-levels? Can you tell me how you went about it in as much detail as possible?

6. Were you shown ways of revising for GCSEs and A levels? … (what about teachers … did you look at websites ask friends – use books?)

7. Can you remember when you first found out that you were dyslexic? Did this influence the way you went about revising? How did it change your approach … can you give me any examples? Why?

**Current strategies**

8. How do you go about revising now? Can you talk me through it – tell me exactly what you do?

9. Do you think you use the same strategies you used earlier when you were at school – different – how – why?

10. Can you think of anything that has influenced the way you go about revising now? (information about cognitive profile …  LDC advice … tutor … friends … websites … study guides)

11. Are you successful … grades? How do exam grades compare with coursework grades?

12. How do you feel about revising for exams? (dread … boring … see it as a challenge?)

13. What sort of information is the most difficult to learn? Why? How do you go about learning it?

14. What did/do you find most helpful? (Blackboard…course notes … IT … friends' support?)

15. Do you know about other ways of revising … maybe you have tried them and decided not to use them?  Why?

3.

4. Strategic planning – organisation

16. How long before exams do you start revising?

17. Can you tell me about any ways you might go about organising your revision? (draw up a plan…organise into topics … look at past papers … decide to omit some topics?).

18. Does the format of the exam influence the way you go about revision? Why … can you give me some examples?

**Debrief**

**Summary of the main points**

Ask if participant has any questions or anything else he/she would like to mention.

Recap on purpose of research and discuss use of cultural probes. Ask if OK to call if I find there are some points which are not clear when going over the notes

# Appendix 7: Phase Two Interviews: email asking for participants

Hi

I'm one of the tutors at Dyslexia Services and wondered if you would be interested in helping me with some research I'm doing exploring the experience of exams. I'm trying to understand what exams feel like from the perspective of dyslexic students and how you deal with them.

**What is involved?**

- ❑ I'll provide you with a disposable camera and I'd like you to take photographs of anything that is important to you when you're revising for exams.

- ❑ After you've dropped the camera back to me (I'm based in the Dyslexia Services office), I'll have the photographs developed and then invite you to come along for a chat about the pictures.

All contributions will be anonymised and if you decide to drop out at any time, that will be fine.

If you feel you might like to help and would like more information, please email me on [removed to anonymise].

Many thanks

Jane Lapraik

The research is part of a PhD at [removed name to anonymise]. My supervisor is [removed to anonymise].

# Appendix 8: Letter to phase one participants sent during phase two

Dear

I hope all is well with you. You might remember that you very kindly helped me a couple of years ago with some research I am doing as part of a PhD looking into examinations from the perspective of dyslexic students. I'm very grateful for the time you gave me, and the valuable insights you provided.

I'm still very much involved with the research and wondered if you would be prepared to help me by answering a few questions.

**It doesn't matter if you leave questions blank – I'd be grateful for just a few words in response to any of them.**

- ❑ What do you think are the most important factors that help you succeed in exams at university?

- ❑ What are the factors that make exams difficult?

- ❑ Does your experience of exams affect your enjoyment of being a student? If yes, how and why?

- ❑ If you had completely free choice about the way you were assessed, what would you choose?
 (e.g. timed written exams, open-book exams, multiple choice questions, viva, oral presentation, written assignment – anything else)

- ❑ Do you feel that being dyslexic and being assessed by timed, written assessments at university places you at a disadvantage? If so, how and why?

- ❑ Do you think that your experience of exams at university will be helpful in your career?  If yes, why and how?

- ❑ What does 'learning' mean to you?

- ❑ Is learning the same as revising?  If not, how do learning and revising differ and how are they similar?

- ❑ If you could imagine dyslexia as a 'thing', how would you describe it?

I've enclosed a stamped, addressed envelope for your response. I very much appreciate your help.

Best wishes

Jane Lapraik

# Appendix 9: Responses to letters asking additional questions of phase one participants

19 January 2011

Dear ,

I hope all is well with you. You might remember that you very kindly helped me a couple of years ago with some research I'm doing as part of a PhD looking into examinations from the perspective of dyslexic students. I'm very grateful for the time you gave me, and the valuable insights you provided.

I'm still very much involved with the research and wondered if you would be prepared to help me by answering a few questions.

**It doesn't matter if you leave questions blank – I'd be grateful for just a few words in response to any of them.**

- What do you think are the most important factors that help you succeed in exams at university?
  *Having plenty of revision time and access to past papers with comprehensive answers.*

- What are the factors that make exams difficult?
  *Lack of the above factors / stress / Forgetting things in the exam*

- Does your experience of exams affect your enjoyment of being a student? If yes, how and why? *Yes, they are very stressful as I am being judged on how well I can regurgitate info.*

- If you had completely free choice about the way you were assessed, what would you choose?
  (e.g. timed written exams, open-book exams, multiple choice questions, viva, oral presentation, written assignment – anything else)
  *Open book Exams were I can take one sheet of A4 in with me with anything I want written on it.*

- Do you feel that being dyslexic and being assessed by timed, written assessments at university places you at a disadvantage? If so, how and why? *Only in so far as I have to remember so much details.*

- Do you think that your experience of exams at university will be helpful in your career? If yes, why and how?
  *No.*

1

☐ What does 'learning' mean to you?

*Understanding something new.*

☐ Is learning the same as revising? If not, how do learning and revising differ and how are they similar?

*No, learning is the process of education, revising is cramming to be able to regurgitate set routines onto an exam paper.*

☐ If you could imagine dyslexia as some kind of 'thing' or picture in your head, how would you describe it?

*A void.*

I've enclosed a stamped, addressed envelope for your response. I very much appreciate your help.

Best wishes

*Jane Lapraik*

Jane Lapraik

Letter from Eric

19 January 2011

Dear _____          *Yes Thanks* ☺

I hope all is well with you. You might remember that you very kindly helped me a couple of years ago with some research I am doing as part of a PhD looking into examinations from the perspective of dyslexic students. I'm very grateful for the time you gave me, and the valuable insights you provided.

I'm still very much involved with the research and wondered if you would be prepared to help me by answering a few questions.

**It doesn't matter if you leave questions blank - I'd be grateful for just a few words in response to any of them.**

- ❑ What do you think were the most important factors that helped you succeed in exams at university?

  • Revision sessions with colleagues.
  • Diagrams / Lists / Bullet points of things not in memory.

- ❑ What were the factors that made exams difficult?

  - Close proximity of exams, Many in a few days.

- ❑ Did your experience of exams affect your enjoyment of being a student? If yes, how and why?

  - Little stressful, but ok.
  - Generally really learnt alot during revision.

- ❑ If you had completely free choice about the way you were assessed, what would you choose?
  (e.g. timed written exams, open-book exams, multiple choice questions, viva, oral presentation, written assignment – anything else)

  - exams are actually ok, however pointless testing memory of facts / equations.
  - The best exams test knowledge & its application!

1

❑ Do you feel that being dyslexic and being assessed by timed, written assessments at university placed you at a disadvantage? If so, how and why?

*—Tough question. For me I think Revisory Formulas can get Tumbled, and is not really Testing my knowledge.*

❑ Do you think that your experience of exams at university will be helpful in your career? If yes, why and how?

*—The dealing with pressure is good skill to learn. — learning/gaining knowledge during Revision - yes to.*

❑ What does 'learning' mean to you?

*—Obtain a knowledge/understanding of a subject Such that like a bike, you can pick it up again easily (with a bit of Re-Reading etc.)*

❑ Is learning the same as revising? If not, how do learning and revising differ and how are they similar?

*—For me, most learning (Really sinking in of facts) occurred during Revision (no course work at this time so change to absorb)*

❑ If you could imagine dyslexia as some kind of 'thing' or picture in your head, how would you describe it?

*—again difficult. To me, different, an advantage out the box thinking (Perhaps adHD crossinghere)/ — Precision/specific skills that cant be tested (normally)*

❑ What degree classification were you awarded?

*1st.*

I've enclosed a stamped, addressed envelope for your response. I very much appreciate your help.

Best wishes

Jane Lapraik

2

Letter from Max

# Appendix 10: Thematic maps constructed during my analysis

**Initial Thematic Map for Sense of Control**

internal      external

protective
factors                 static    changeable              strategy
                                                            own
resilience                         Self
                      attributions
                                                    taking control

diagnosis       learner Identity
                                        locus of control
critical incident

                                                            lack of control
turning point   stigma   difference   others   self

distal    proximal    other
                            exclusion              strategy
                                                    "theirs"
comments          emotional    physical              confusion

**Final thematic map showing two main themes for sense of control**

'their' strategies                    'own' strategies
                                      self in control
                    outcomes
                    dependent on          proactive take
others in control   effort              decisions make
                    personal defect      choices
agency self-        diagnosis   self-imposed
Efficacy, self-
esteem low      ┌──────────┐      ╭──────────╮      ┌──────────┐
                │ low sense│ ━━▶  │ turning  │ ━━▶  │high sense│
whatever does   │ of       │      │  point   │      │ of       │   academic self-
makes no        │ control  │      ╰──────────╯      │ control  │   esteem high
difference      └──────────┘                        └──────────┘
                    outcome                                  metacognition
                    independent of   feel different          high
                    effort           'separate'   comments by
                                     'other'      others
learned helplessness  avoidance                        learn from +ve and
                        critical                       −ve experiences
                        incident
        choice
              decisions    work

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# Appendix 11: Participant profiles

**Bridget**

Bridget is a 20-year-old first year student studying for a degree in Archaeology and History. I interviewed her towards the end of her first semester at university. This was the first pilot interview of my study.

Bridget was assessed at the age of 13 and found to be dyslexic; she was subsequently provided with individual support at school. Bridget's A-level grades were too low for her to be accepted at the university of her choice. Rather than abandon her desire to study at a highly regarded university, she decided to gain work experience in a related field. According to the assessor, Bridget is of above average general ability with strength in verbal skills. However, her literacy skills are weak: spelling requires some deliberation and reading and writing are both slow. Her working memory is weak and her processing speed slow. These difficulties mean that Bridget experiences difficulty holding onto information long enough for it to be processed. Note-taking in lectures, extracting meaning from complex text and organising ideas in written assignments are problematic and cause some frustration.

Bridget relied on friends as her 'support structure' at school. They provided her with crib sheets for exams and also helped her with coursework. Nevertheless, she appeared to hide the extent of her difficulties from her friends and disguised how hard she was working. A diagnosis of dyslexia provided Bridget with an explanation for her difficulties but also an excuse to hide behind. Bridget's home-life was unpredictable, she was not able to plan or organise her time. Now that she is at university and without the support structure of her friends, she appears to be relishing the thrill of achievement.

**Bridget: a profile in her own words**

My younger brother played up really badly at school and my mum pushed for him to get diagnosed for something, just so that he could get some help. And she noticed I had a lot of the same problems that were associated with dyslexia which my brother had. So she pushed for me to get tested and in the end paid for an independent test. So I was about, at that point, I was 13, I think. Sometimes iIf I was going to say "I'm never going to do this, I know I'm never going to do this. This is really hard" I would kind of use it as a really convenient excuse. I can't do it. I'm dyslexic. You can't make me. I've got a piece of paper which says I can't do this. I shouldn't have to - which helped a lot with the feeling, the feeling of failure. Didn't feel like I was failing - I just wasn't very good at it. So I suppose it should have encouraged me to try harder but for a lot of it, if I found it very difficult, I

used to sort of, to hide behind it. I was, there is a reason I can't do it, not just me being stupid.

[I felt] kind of pathetic at the time. I was quite young and it was hard. Just carried on the same. No-one had said, like, you could try it this way or had given me alternatives, so I just carried on. Not really stressed but I got dismayed before the test. I don't know this. This is ridiculous, we shouldn't be made to do this. Kind of indignant and dismayed and just kind of just before the mock exams - whatever, I know I'm going to fail. I know I'll fail. If I passed it was just a happy surprise.

If I said to my friends before I did it [the exam], "I'm going to fail. I didn't revise at all. I don't know what's going on. I didn't look at *any* of my books. I hadn't done none of the revision". And that helped with the embarrassment if I failed. If I tried really hard, I'm stupid. If, I'm - it's cool, I don't care, it's fine - I didn't look at any of my books. Most of my friends were nerdy, quite really studious and found themselves doing really well in lessons. So if one of us didn't, it was a bit of "Why didn't you revise?" So, if I went in saying I hadn't revised, if I did well then I got - "you are really smart and can do it without revising" which was a bit of an ego boost. If I failed they were, like, "you should have revised" - but not as bad as it would have been had I revised and failed. I was lying to save face.

I think the problem was, I was working as hard as they did and I wasn't getting it. We went to libraries and things and sit around and test each other. In hindsight I probably should have gone home and worked much harder but I had that defeatist - I don't mean to fail, I've failed everything. Why should I, kind of, spend my free time doing more revision than sleeping or something. So, they knew I did some revision and I'd kind of slack off and so give the impression I wasn't actually revising.

We had revision day when we were going through GCSEs and they were talking about memory techniques. A lot didn't work for me. I would use my friends' crib sheets rather than make my own. I found I was never sure what was important and what to make notes on. So I wrote either lots of notes that didn't make sense or not enough. My friends were quite good at condensing the information - making it and changing words and they were quite happy to let me borrow. I didn't mind. It helped. My friends were all very nice people - can't think of another way of saying it.

French GCSE I found very difficult. We *had* to learn a language and I struggled. We had vocabulary tests and I was appalling at spelling and grammar. I struggled with it in English and French was beyond me. One of my good friends in the class with me - she

would go through the crib sheets before it [the test] because she knew I struggled. I repaid in kind with design and technology. We had a system: I would do 'build a project' and she would get me through French. We were each in danger, which amused my friends. We had different skills which was fine. I could build a project and she could do French grammar. It was just kind of different abilities.

If I find a new subject interesting and I've done well orally - passed well at coursework and in the lessons and I'm quite confident about the subject, I'll start revising a few weeks in advance. Whereas, if I don't normally pass, I don't think - it's not worth the time. I revise on the morning of the exam - read through pages and do the whole revision - which is probably more about me being a failure than me being sensible.

My geography teacher seemed to find my coursework completely unbearable. My teachers had to have me in detention. I don't know why no-one had gone through with me how to write it. I used to hand it in and thought "this is ridiculous". In the end I've failed - just pointless. I got a D. Shocked. I just didn't really care either way. It didn't really make that much of an impression. Ridiculous thing ... it didn't count - I'd kind of written it off. I hadn't really included it. I'm not taking the exam [A-level]. I'm not actually involved with it. I detached myself from it.

Most of my friends, my support structure at school, they've gone off to do different subjects, different universities ... it's more me doing it for myself so I am actually finding it quite easy. I've kind of lost that crutch. It is fine ... got to do it myself even if it takes twice as long and I have to read three times as many books as I normally do. So I think coming out on my own, not having support or being able to rely on my friends has made quite a bit of difference. Difference to how I'm performing. I've got more background knowledge. I perform better and changed my attitude a bit as well. I feel more proactive about it rather than defeatist. The essays I have written, as an example, instead of copying my friends' notes and condensing into an essay and not really going out and finding the information myself and spending lots of time on it. I've actually had to go out and find the information and spend time and plan it myself instead of using my friends' time. I've done quite well. The last essay I got a 2:1... I did it myself. I did well. There is a lot more pride in what I have done and it helped with my confidence as well. I can go out and do that. I can retain information for the exam so I'm a lot more willing to go out and try and so I think I'm not going to fail. I did well and I can do it again.

Completely ecstatic [if I pass] I think. I know the morning when I got my essay back and my grade and phoned my parents. I was so excited because I'd done well and done it myself. It was amazing - I passed, I passed well. I think I probably drunk myself into a

stupor or something ridiculous to celebrate. So, I think the stakes are a lot higher ... like emotional because there's the possibility that I could have gone to all this extra effort and failed but I put in the extra effort and it completely paid off.

I've never been very good at organising. If I *force* myself to do something, I don't do it. Well, I have to actually *want* to do it. If I sat there for half an hour desperately trying to read a piece of text whereas if I spend ten minutes doing something else then I can spend 20 minutes doing the exact same kind of information. When I do a plan it always goes wrong and I get agitated. When I've sat there and physically made the plan, made my colour co-ordinated timetable like we were meant to at school ... and if I don't bother or something happens and I can't. Nothing ever goes to plan. So, I've made a plan and then for some reason I can't follow the plan and I'm behind my plan and it all goes horribly wrong and I get very stressed and it's completely counter-productive. I'm there again. I'm never good enough and now I've completely gone off plan and I might just as well stop revising altogether. I find I work best when I just do what I can ... I can do it the next day or after - I haven't messed up.

Well, I think the attitude I get, well, I've already failed, you know. Sod it. Not going to do any better. Not going to try. If I feel like I *could* pass, then I could put a bit more effort in and I try. If I think I'm gonna fail, I don't seem to try because if I try and fail then I've failed. If I don't try and I fail - then I haven't tried and so I haven't failed. So with me personally confidence really does help. If I'm confident I think I'm going to pass - then I kind of do a lot better than if I've kind of written it off.

I used to prefer exams to coursework. I didn't like coursework. I did very badly on it and found it just horrendous but now I'm quite enjoying writing the essays. I think now I'm older and I've actually got like goals rather than it's just an exam you can do. I'm going out of my way to take this exam and I *want* to pass rather than when I was younger I was kind of - I was quite apathetic about it all really. I had to do it - school said I had to do it, so I wanted to do it. Now I actually *want* to pass, I'm a lot more apprehensive about actually taking the exam because, you know, there are things riding on it -it's not just like saving face with my friends because I think they're helping me revise. It's I actually want to do well, which is kind of a pressure a bit more, I'm feeling a bit more stressed than I think I ever have about exams in my entire life.

I never really measured myself against anybody else. I always found it kind of depressing when I was, like, looking at my friends essays and they were looking at mine - which I always avoided. When we were younger when we were like first doing stuff [I compared myself] but then once I was diagnosed and everything, I thought "No I can't grade myself

against my friends because my brain works differently". That's fine - I do things *my* way that's the way I do them. But for me, I'm putting in more effort than I have before because I *want* to succeed rather than being, like, apathetic. So, yes, never really compared myself when I've been doing like big external exams because by then I was already diagnosed with dyslexia. So, well, that's how *they* do it - but that's not the way my brain works - that's not the way that I can do it - so I won't do it the same way they do. It should have helped actually because all my friends are really intelligent and proactive and it was all quite frightening ... so yeah. (Bridget, pilot interview, 2 December 2008).

**Seb**

Seb is a 26-year-old second-year student nurse. Although he had a history of difficulties with literacy skills, he was not assessed and found to be dyslexic until he was almost 17. According to the educational psychologist, Seb's verbal skills are good and visual-spatial ability is high; however, his working memory is relatively weak and he is unable to process information at speed. His spelling and reading accuracy are relatively weak and both reading and spelling are slow and effortful.

Seb holds a BSc in Cognitive Science from another university. Although he took part in phase one of my study; he brought photographs with him to the interview rather than taking them retrospectively; he also gave me his revision notes. I found Seb to be personable, articulate and very ambitious. Comments at school appear to have made him determined to succeed and gain a place at university. After the recorded interview he explained that he did not want friends and family to think that any failure in examinations had been caused by the parting with his girlfriend in the final year of his first degree and this spurred him into developing the strategies he now uses**.**

**Seb: a profile in his own words**

Just frustrated. I remember when I was at school. I went up to the biology teacher "Oh, I'd quite like to be a dentist" and she kind of said "I don't know if that's a good idea" because, you know, she didn't think I was brainy enough to do it. And then when I saw my dyslexic woman the first time - I think it was just before GCSEs, or just after - and I was saying I was thinking of going to uni and she was, like, "I wouldn't recommend going to university" and, like, when someone says that to you it really makes you want to prove them wrong because it's like you're saying "I'm dyslexic - whatever - like I'm still going to get there ... I'm still going to!". So when I was at uni I just really wanted to prove that I could get a degree. I was just *adamant* because so many people have said that I won't get

anywhere academically. I'm clever enough, I just can't remember it. And now I've got a 2:2!

Learning my times tables … I learned by rote with my dad in the car … but with something like spelling … because I'm dyslexic I probably found that a lot harder. When you get older, like to eleven or twelve, then it's on your own … my type of revision wasn't that good. I was … revising for my GCSEs … I was, like, Dad can you help me? We'd talk about it and then later, like over dinner or if we ever went anywhere, we'd just discuss it and I'd test him and he'd test me and that's how we'd learn it.

[I felt] probably quite frustrated but I also feel I probably didn't put enough effort in. So I kind of felt it's my own fault that I didn't do well. But I think I didn't put the effort in because I didn't have the techniques to [long pause] learn it properly. It's not cool to revise. I just wanted to do maths all the time because I found that really easy … it was logical, whereas something like history, it's like the bane of my life and it's just facts that were in the past. I didn't have a technique for revising. It wasn't a logical system. I didn't have any real strategy so it didn't really work. It wasn't a very good system, it didn't work well. I knew going into the exam that I just wasn't going to remember it … so annoyed.

**In HE**

My [first] degree which was psychology and computer science … that was when I suddenly, don't know where I learnt it, why or how I learnt it. I just came up with it [technique] it just works for me. I just knew I had to pass this exam and I was just adamant I was going to do it. Before I even start revising … I'll look at past papers … I'll really focus my revision and second guess on what's going to come up. I know I'm going to do quite well in them and like what's so frustrating in the exam I've just had, the questions weren't as they said … I went and complained to the module leader which was so out of character to me. Just because I know I can do well in exams now … it's so frustrating when they move the barriers. I know I can get there now, know I can. I've proven everyone wrong, because at one point [long pause] and then it's knowing I can do what I want to do and I can, you know, I've become, like just - I'll do well in it, yeah, get good marks. It gives me the control that I can be what I want to be and do what I want to do. (Seb, phase one interview, 11 May 2009)

**Tracy**

Tracy is 20-year-old final-year student nurse. She told me that she had volunteered to take part in my study as she 'wanted to give something back' in return for the help she had

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received from the dyslexia support service at the university. Tracy was first assessed as dyslexic at 17. According to the educational psychologist, Tracy's verbal skills are in the average range; however, her literacy skills are weak. Problems with spelling affect the vocabulary she uses and her reading is slow and laborious. In addition, Tracy's working memory is weak and her processing speed is slow.

**Tracy: a profile in her own words**

I was never confirmed as dyslexic. I probably just thought I wasn't very clever to be able to remember something for a long time. Spellings, they told us how to do it … but, yeah, didn't stick. Well, when I was at junior school I used to get help. In English and maths, I was taken with another group of three or four students and we had one teacher between … us. Then at secondary school - *nothing*, no help at all; I was just in the normal classes with everyone else. In my GCSEs I would try and read through … most of what we had to do was boring and I'd be so easily distracted … even I'd resort to cleaning so I wouldn't have to do something like that [revise] because that bored me. When I went to college one of the tutors said I should get tested for dyslexia - so I did and they said I was dyslexic.

I suppose it made me understand more. Rather than me just being like "oh, I get easily distracted" but actually knowing what I know - why I get distracted easily it's because [of] dyslexia. So it made me feel, I suppose more comfortable about it. I didn't feel thick. I felt it was actually something was missing - whatever it means to be dyslexic. It didn't make me feel like I was just a bit dumb.

[I felt dumb] because I couldn't pass any things. Well, I could pass, but like, especially English - I wasn't very good at English. I think I'm very logical and everything about English just isn't really a logical thing. It's just something someone made up really. It's just something someone made up and the rule you have to follow. Two add two *is* two add two. It *is* four. A full stop is something someone made up.

It's really hard to use the text books to learn. I find it much easier to be a teacher teaching you. If it was something that I couldn't do still, the text book wouldn't really help and I would just fail that question; wouldn't worry about that - about that question. I didn't really care about when I was at school … because I didn't understand the importance of education. I would have studied a lot harder if I knew now - but not then. I don't think I really cared when I was younger. Oh, it's something I *have* to do. It wasn't something I *want* to do.

**In HE**

I probably see it [exam] as a challenge. I don' really get worried about exams. It's no point in having a challenge out of your reach because when you fail you're not very happy.

When I need to revise … basically all I do is go back over what I've written. Just read through all the notes I've made. I only intend to go over it once and I think I should go over it more. That will hopefully be enough. I don't really check I've learnt. I do it when pretty much hopefully there's no other things I could be doing instead because then I'm not going to get bored. If I don't cover everything then, if I try to force it then I wouldn't learn anything anyway so no point trying to force it. I don't use my text books … because they tell us everything in the lecture that's the way it's gonna be in the exams … there's no point going to the text book because it's gonna give me more things to look over, maybe confuse me, something like that.

It [dyslexia] does make me still feel a bit dumb; I've got to ask someone to spell something. (Tracy, phase one interview, 13 March 2009)

**Ned**

Ned is nineteen, a first-year student of Maths and Economics and took part in the pilot of phase one of my study. He regularly attends study skills support from the dyslexia support service.

I found Ned to be articulate and confident; he appeared happy discussing his difficulties and the strategies he uses. He was first assessed at the start of secondary school after teachers and his parents noticed literacy difficulties. According to the educational psychologist who assessed him recently, Ned's verbal ability is very high but literacy skills and working memory are weak and organisational skills are poor. His handwriting is slow and untidy and he has difficulty reading his own writing. He is allowed the use of a computer in essay-based exams. Ned appears determined and highly motivated. His AS results were poor and he made the difficult decision to re-sit a year at school. He described this decision as a turning point in his life. He continues to benefit from supportive relationships – both from fellow students and old tutors and teachers from school.

**Ned: a profile in his own words**

I was assessed at 11 or 12, I think around that age. I had lots of spelling tests, especially when dyslexia was first diagnosed. I remember getting extra spelling tests from my tutor at the time to try and help me catch up to the standard I should be at my age. I think we had weekly spelling tests; obviously I struggled greatly with these tests. I definitely had an improvement in my spelling after she helped me out; obviously it was not to the stage that everyone else was because I had a lot of catching up to do, but I got a lot better. When I was younger … it was more a case of that I just got bad marks and my parents weren't happy and my teachers weren't happy. It was a bit depressing from them but from my age group - from my friends - it was never really a big problem.

It was only for English where I was behind. It was more a case of I just wasn't very good at English, that's all I thought … with a lot of intelligent people of my age - they are obviously better than me. Whereas my maths skills weren't that bad, so in that way it kind of balanced out, so it never really hit me as being a problem. I didn't really understand it being a bad situation at the time. Other people thought differently and that's why I was tested for dyslexia. I sort of had an excuse as for why I was so far behind - it wasn't so bad. It wasn't that I was just stupid. When you think you're stupid that's quite a depressing thought but when you know [you are dyslexic] you can do it but you just need to have a bit more practice; you just need to have a bit more extra help. It reassured me that I could do it and the fact that I am now at uni has completely justified that all for me. But at the time when I realised that I had a specific learning difficulty from the dyslexia it didn't depress me that much because it was knowing - yes, I had this problem which puts me behind everyone else but it doesn't mean I am going to stay there. I can get back up there because I can do it.

I would never be a good reviser. I've never been a great achiever of marks. I was very clear that I did have a problem and even after I was diagnosed at first it was still not fantastic. Obviously I had a lot of ground to cover. Most of my revision techniques were just repetition because that was the only way I could survive because my short-term memory is quite pants to be honest. I think the teachers took more time out to see me because of my dyslexia ... because they knew it was going to be a hard time and they just tried to do as much for me as possible.

I only did eight [GCSEs]. I was supposed to be doing nine but I had to drop Spanish half way through the first year because I just couldn't hack it. I got through, I think, the first half term and I thought - this is impossible. I can't do this. I had always struggled with languages. I've done really, really badly at Latin. At my school if you do badly at Latin you

get put into Classics. I was put into Classics in my third year of high school rather than doing Latin because I couldn't do it. I couldn't remember the words, I couldn't do grammar. I hated Latin. I hated French. I hated Spanish. I hated German. I did all these languages at one point in my school life and I hated all of them. I would love to be able to speak a foreign language; it is something I've always wanted to be able to do but I can't write it for the life of me. I can never remember how to spell things. I can never remember how to do grammar. There is all these different tenses which don't make any sense to me … it was just like this doesn't appeal at all. I can't do this. I can't understand this. I can never remember this. There's just so many words. I can't spell English words let alone Spanish ones ... when I dropped that I was so glad. It is a shame I can't do a language but it's just something that I'm going to have to accept that I can't do. My dyslexia just doesn't let me. I could probably learn to speak it eventually but it would take a lot of work and a lot of effort and I would see a very small relative return.

The competitiveness for grades was never very high between my social group - we never got picked on for being lower than everybody else. It was only really when I started to do high school work that it started to become clear that people were starting to be a bit more "oooh I'm getting good grades … I'm doing better in this subject than I am this subject". I realised that work was building me up for something. I understood that GCSEs were coming and I am building myself up for them and that's when I realised what I was good at and what I was bad at. I really struggled with my languages. I can do maths. I can do science but I really can't do English and that's when I started really understanding about achieving grades and understood that I want to achieve higher grades.

I was just slower than everybody else [in exams]. I had a lot of time to check over to make sure I hadn't made stupid spelling mistakes. I didn't want to get side-tracked and start waffling about something which won't get me any marks. I was possibly a bit slower than other people because I would spend more time thinking about where I was going rather than what I was doing.

I actually, unfortunately failed - well I didn't fail - I actually re-sat a year at school. I did my AS year twice because first time I went into it kind of with a lot of complacency because I did reasonably well in my GCSEs for little work … I could have probably done much better if I had put a lot more work into it and I thought A-levels would probably be quite easy as well. I went into it thinking it was easy and … then I realised I don't actually understand any of this. I looked at my notes - I can't revise this because I don't understand it. I haven't got a clue what is going on here and by that time it was too late for me to catch up to do well in the exams and I just basically had a poor exam results. And I decided then and there that this is *never* going to happen to me again and I'm re-sitting the year because I

can't go into A2 year like this - I'll never get into a decent university ... It wasn't the easiest decision of my life I have to say.

I hated it [exams] - always have done. They've always made me nervous. If I know the stuff I'm happy but I always feel that there is something I've forgotten or I will go into an exam and it will be just evil. When I went into my exams for the first time in AS year, I knew I was going in there not knowing stuff and I knew then and there that I'm going to fail these. I went in and I was just like "I can't do this" and I'm always, always terrified that that will happen to me again. It's one of the worst feelings I think I've ever had going into an exam and I can't do it and then sitting down and just looking at the paper and tearing your hair out thinking "how do I do this?". And it is something which I really don't *ever* want to go through again.

I didn't want to be doing worse than anybody ... I had to make sure I did well and I didn't want to be getting a B, I didn't want to be getting Ds in tests or Bs in homework, so I always had to go for the A only for the fact that I didn't want to be seen to be there and still doing very badly. I felt stupid again which was something which upset me a bit. I felt like I was stupid so, therefore I had to work harder to make sure I was better than everybody else but only to make me feel better. I felt when I was at primary school with the whole not getting very good marks - I felt stupid until I realised I was dyslexic and I realised it was something I could work at to get better. I felt I could understand the stuff but I didn't understand the stuff and that's what made me really upset about my school work because I did feel like I was stupid in comparison to everyone else who passed the courses who would be getting As, who would move onto the A2 year. I felt that they were better than me and I felt stupid compared to them but I knew I could do it. That's why I re-sat the year. I re-sat the year because I knew I could do it. I had to make *sure* I did it.

I knew if I put my mind to it I could accomplish it. I knew after that point, I will go to uni now and I will do my very best to get a good degree out of this because if I put my effort into it I should be able to get something out of it the other end - something respectful, something which is good. That's kind of the driving force that I knew I could do well if I put my mind to it. And I did do well so, therefore, I shall carry on trying. (Ned, pilot interview, 8 December 2008)

**Cindy**

Cindy is a 26-year-old first-year student of Oceanography. She took part in the first phase my study. Cindy was educated in the USA and took her first degree there. Cindy's teachers and her mother noticed that she was experiencing difficulty acquiring literacy

skills from a very young age and she was required to repeat a year in kindergarten. She was first formally assessed by an educational psychologist at the age of eleven and subsequently given individual support. According to a recent assessment by an educational psychologist, Cindy's general cognitive ability is very sound and she has strength in verbal skills and most particularly verbal comprehension. However, her processing speed is slower than might be expected from her general ability; her working memory is weak and her literacy skills relatively poor. These difficulties make it difficult for Cindy to organise her ideas in written assignments, to take notes at speed in lectures and to extract meaning from complex text.

**Cindy: a profile in her own words**

My teacher said I had behavioural issues because I'd get upset in class quite often because I'd get bored. I'd understand what the teacher wanted me to do and I'd understand what it was that I was *supposed* to do but I'd have trouble like, you know, reading or putting my words together … and it was my Principal who said "I think she's dyslexic, I *don't* think she has behaviour problems" - which was really, really good [laughs]. You know, I was a good kid and student - it was just that I was frustrated and so I started on working on techniques to help me learn better in my separate class.

Kids who had learning difficulties usually had - we were in all the normal classes with all the other kids but usually one day we would go to a separate room where there is only a few of us with our teacher who specialises in learning difficulties and we would work with her on our reading and spelling. Started from kindergarten all the way up to sixth or seventh grade.

Someone said "Cindy it's not that you're not as *smart* as everyone else but you do have a lot of difficulties. Do you realise that?" and I would be like "Yeah, God yes". "Well OK we're going to help you work on that"... So every year, half way through the semester me and my parents would get together and all of my teachers in one room and people who were in the learning difficulties offices and talked to them about how my exams were going. The teachers would say "Well she's doing really good here, here but needs to work here, here" and then my parents would ask for advice and what kind of study methods I should use or generally that kind of thing.

It's kind of, it's kind of *upsetting* when someone says you just need to work harder to get better. "Yeah, you're just as square as everyone else but it's going to be a *lot,* there is *work*, I'm warning you it's going to be really a *lot* harder and you should really prepare yourself for the difference. It's not *impossible*, but we just want to warn you ahead of time

that, you know, it's going to be *really hard* and it's going to be really *frustrating* but you shouldn't give up because lots of other people have done it before you". So they'd point out "You are having problems here, here but you are also way *above* average here and here" and so it balances in a way.

Oh God, I can assure you it's hell, it really is; it was at first. When I hit High School I kind of just got over it because it's not that I didn't understand it but it's kind of - you have all the jumble of information and trying to put it into a linear order so that you can write it down so the teacher understands it and trying to get it into order is *really* hard.

It [spelling] was horrible, *so* horrible. Anytime someone said you have to write a paper I just got cold shivers - so, I didn't like doing it. I hated doing maths tests and I really hated doing spelling tests but if I was asked to do science or someone asked me if I could read something, I didn't have a problem with that. I completely understood what it was so I was able to read a story. I could put it together pretty quickly what was going on. So, I never had a comprehension issue - it was just actually the physical reading bit. It isn't really a confidence builder by any means. It's kind of down-putting actually. But, you know, I'd work at home on it [spelling] a lot and my parents would help me out a lot so that was good. And they would also push me into doing other things like clubs and sports; so if I wasn't doing good in one area, they'd help me find something I was good at to help build my confidence up. "See, you're good at this - you just need to work at that".

I think it [being dyslexic] tends to make me feel a little more stressed. Like, you know, I have friends who like study the week before - it'll be fine - and I just can't do that. You know, I can understand they work without … but sometimes it baffles me and like I gotta spend like two and a half weeks on it. Not necessarily *have* to but I won't feel *comfortable* if I *don't*. I would just be *stressed* the entire time if I don't give myself an allotted amount of time to do it. Where other people, I guess, just look at it the night before, I just can't be one of the people that studies the night before … Sometimes it is very frustrating because it's kind of annoying when you are sitting inside revising and it's nice outside and all your friends want to go out and hang out and you're like "I can't and I really need to revise but I've only got an extra week. You have an extra week, I don't have, to revise". So sometimes it is a little frustrating. There are so many times like when you have to tell your friends "Well, I have to stay an extra hour in class while you guys, you know, get to have playtime". When you have to go work extra hard and you can't explain to your friends *why* it is really hard. So you have to be positive about it. You have to kind of take the good with the bad.

On a *not* positive note - I had a Middle School teacher say - I think I was just in Year 5, I wasn't supposed to hear it - that I would never get through High School which really pissed me off. She was like - "she'll never get through High School and College". I kind of went back and told her that I, you know, I was in the top - back to work! You kind of have to. My mum cursed – "go back and tell that witch how you feel". You should never say that to a child, it's horrible. She said it when I was about eleven and I didn't really understand what was meant by it and I told my mum "Well, this is what so and so said, what does she mean by it?" And Mum was *furious* and she went down to the school and kicked up all kinds of storm and then my dad explained to me and I got really upset. But the more I got mad and a little more determined because it helped me to realise that it's not that I had no idea what was going on, it just takes me a little bit longer. But I usually do get very decent grades but I've just got to work a lot harder, I guess.

My friend Hayley, her brother has a photographic memory. He can read something once and never forget it and he just doesn't really care and he can get As in all his courses without really trying and people like that kind of make me sick. Kind of wish I didn't have to. So, I need, you know, three times as hard to get what I want. Like I've moved to another country taking courses and surviving, yes survive, just survive. (Cindy, phase one interview, 23 April 2009).

**Eric**

Eric is an 18-year-old first-year student of Electrical Engineering. He explained that his first choice of subject was military history but as he considers that 'all essay-based subjects are off limits' he chose Electrical Engineering instead.

Eric experienced difficulties with literacy skills throughout primary school. He felt that progress with reading quickly reached a plateau and 'stalled'. Nevertheless, he passed the eleven plus examination and attended grammar school. Dyslexia was identified during his first year at grammar school and Eric was subsequently given individual support.

According to a recent assessment by an educational psychologist, Eric's verbal ability and vocabulary knowledge are very high and his reading accuracy is good; however his spelling accuracy and writing ability are poor. Eric finds it very difficult to structure his ideas and the process of translating his thoughts into the written word is laborious. Eric explained that weakness in working memory impinges not only on academic work but also everyday life. He recalled an experience he had playing a game with a friend that involved rolling ten dice. As the pair had only two dice, it was necessary to roll the two dice five times and add the scores; however, despite being adept at maths, Eric was

unable to hold both the score and the number of rolls in his head and found that he needed to ask his friend to count the rolls whilst he added the score.

I interviewed Eric shortly after he had completed the first semester examinations. He spoke very deliberately and precisely although frequently paused as if searching for the exact word he wanted; he displayed some frustration when he was not able to retrieve the required word. Eric used his hands to demonstrate points he was making and occasionally banged on the desk for emphasis. Eric took photographs, gave me copies of his revision posters and also completed a short written log describing the practical process of his revision. In addition, Eric was one of the three students from Phase One who responded to my letter asking a few additional questions.

**Eric: a profile in his own words**

They didn't identify me as dyslexic until Year 7; in Year 5 and 6 it wasn't dyslexia, it was stupidity, so it just annoys me. Year 4 was the point at which I stopped getting any better. I have got better since then, but I would be moving at the same pace as everyone else and then bang! I seemed to hit a bit of a wall and everyone else kept going [banged desk].

I think I would have been labelled with the medical that says this kid has dyslexia which was *horrendous* - that was the label they put on the results. It's kind of mixed [feelings] because you don't like being pointed out as being different but I also appreciated the fact that someone was trying to help me.

And I got to Year 9 and they specifically took me out of English classes on one-to-one with someone to do SATs exams. They didn't want *my* performance to drag the school down. Year 7 it was "well you've done the tests, you are dyslexic OK. Good luck with that!" Nothing, absolutely nothing to Year 9 - when they actually thought it would affect the school … my grammar school had a very good reputation. The previous Head had got them an extremely good reputation and the next Head and the organisation all sort of ended up trying to hold onto that reputation. They are succeeding now but they are only holding on to it. They don't want people … [like me].

I was going through the English one [SATs paper] - slower because the class was going ahead … I don't know whether I would have kept up with the class or not. [I] was going through it on a more measured pace and someone specifically helping me with how to do all the bits. Annoying … because everyone else around me was able to do it [learn spellings] and I couldn't and that does frustrate you because you think you're incapable. You are just *incapable* and *stupid* and you can't, you just *can't do it*. [banged desk] I was

annoyed I couldn't do it. I could see the purpose of doing it because obviously [if] you spell something wrong people might not know what you are trying to write. So, I could see the point but I couldn't - it was the actual *doing* it, the *achievement* of it. I got frustrated with *their* system [of learning] because it wasn't working ... so I started just trying other things I thought might work.

I think it [dyslexia] is a double-edged sword. Well, it has advantages and disadvantages. The advantages ... there are some small bits and pieces which statistically dyslexics seem to be slightly better at. A far greater percentage of people who earn over seven figures or more a year are dyslexic than non-dyslexic, which is an interesting correlation. [The disadvantage is] the obvious inability with words.

I just *deal* with it. Deal with the problems I have with words and remembering things and so forth. I'm really annoyed about it if I forget things like this because I use them every day. Just get on with actually doing - saying nothing, as there's nothing I can do about it. So the only option is to just put in the effort and get on with doing it.

I think dyslexia does the opposite of making me empowered. It unempowers you. It restricts you. If I wasn't dyslexic I wouldn't be doing engineering right now. [I'd be doing] probably military history. I love it. *Absolutely love* it. I know so much about it, it's frankly ridiculous - but I cannot write essays to save my life so ... basically all essay-based subjects are off limits to me. Well, not off limits to me but I'd fail. I never think about doing it as any kind of academic pursuit. I like engineering quite a lot. It's my second choice - it would be my second choice in a world where there was a choice. It was a reasonable choice to make. It [the choice] wasn't taken away. I just never allowed it to happen. (Eric, phase one interview, 12 March 2009).

Learning is understanding something new ... [it] is the process of education; revising is cramming to be able to regurgitate set routines onto an exam paper. [Exams] are very stressful as I am being judged on how well I can regurgitate info. [Dyslexia is] a void. (Eric, correspondence, January 2011).

**Max**

Max is a 22-year-old final-year student of Electronic Engineering. He appeared to be extremely ambitious and determined to achieve a First. Max experienced some problems with concentration when young but it was not until he was 19 and in his first year at university and struggling with the reading and writing demands of the course that he was assessed and dyslexia identified. According to the educational psychologist, Max's

general cognitive ability is high; however, his reading is slow and reading and spelling accuracy are weak. Max has teamed up with a 'coursemate' at university; they book a room in the university library to revise together. Max describes his coursemate as a 'useful resource' as he 'saves time' and reduces the necessity to read large volumes of text himself.

Max seeks regular dyslexia support at the university and explained that he volunteered to take part in my study as he wanted to 'give something back'. He took photographs of his workspace, both in his own room and in the library and also replied to my letter asking some additional questions.

**Max: a profile in his own words**

Back at primary school … I remember spelling tests. Sat down, take a spelling test, you know. You didn't get in trouble if you did badly as such; didn't really get praised much if you did well either. The only thing I can remember about it really is actually [long pause] people were all given stars or something or a smiley face or something. Just imagine at the time I might have been [long pause] a bit frustrated by that.

My writing was very untidy and it's not very motivational when a teacher says "Everyone else can write neat so just close it away and just do it again". I think [that was] the kind of underlying reason for why … I hadn't really learnt much. I hadn't learnt how I could work. No-one said "Look you should revise like this. This is the way that can apply to you". The way I was taught revision was, sort of, it was the same for everyone in the class whether it was appropriate to you or not … it doesn't work for *me*.

To do the A-levels I wanted … I had to have at least a C in English which is ridiculous. If I got a D in English they'd say "No sorry, you can't do your A-levels". That put a lot of pressure on … I was extremely stressed. I think, you know, it partly is about confidence. You know, when you hear, when you get a name [long pause]. I think the big turning point was GCSEs, suddenly I realised. If I go back to Year 8, I was predicted Ds, Es and Fs and Us. A lot of that was because of my behaviour in class. I was *told* it was bad behaviour but I just found it hard to concentrate. Because by that point, by sort of Year 9, Year 10, you know, it was a kind of turning point … because I could concentrate and the coursework was coming back as B or predicted B or A. Suddenly, I thought "Wow, you know, that's what I was going for". When you're predicted Es, you think, well what's the point.

**In HE**

Just the organisation of things; I mean the first and second year although I achieved the same grades as I get now, sort of 75%, I was much more stressed and I was working much longer hours. Whereas now I can work half the hours, be half the stress but still get the same results. I've learnt how to organise myself. I've learnt how to learn, yeah. And the funny thing is, it's probably not until recently, you know, perhaps, you know, I think my learning to learn is a lot slower than other people. I think my actual getting on with it, with work, is the same as other people, but doing it in an organised manner. I think I'm probably organised to a very high level. I hadn't sort of learnt how to apply myself at university because you've never had lectures, never had to scribble notes whilst somebody's talking … so I learnt from that.

I think because I've had the difficulty learning, I think perhaps more than other people I've come up with a set and logical procedure to do. Say, revision a robust method. I've only ever been myself, I don't know how other people do it. It's an approach that definitely works for me and this approach has moved my grades from predicted Es and Fs to, you know, a First at university level. I think it's [dyslexia] made me about a million times more organised simply because I *had* to. (Max. phase one interview, 27 April 2009).

[Dyslexia is] to me different, an advantage, out of the box thinking – precision/specific skills that can't be tested normally. (Max, correspondence, January 2011).

(Max contacted me after receiving the results for his final exams to let me know he had achieved a First).

**John**

John is 33-years-old, tall and athletic with a self-assured, confident manner. He is married with young children and in his first year of a four-year graduate-entry course in Medicine having already gained a 2:1 degree from another university. John took part in phase two of the study and after the interview remarked that he had revealed some things that he did not generally talk about. John had previously served in the Army Intelligence Corps and spent several years abroad in a war zone before applying for his present course.

John has a long history of difficulties acquiring literacy skills; his parents and teachers noticed that he was experiencing problems with reading and spelling as soon as he started school. However, it was not until John was nine that he was assessed by an educational psychologist and found to be dyslexic. John was re-assessed at the age of

fourteen, again when he was sixteen and a final time when he began his present course. According to the educational psychologist, John's general ability level and reasoning skills are very high; nevertheless, he continues to experience difficulty with reading and, most particularly, spelling. However, it is John's marked weakness in auditory short-term memory and working memory that appear to have the most significant impact on his HE studies. John was given individual specialist support throughout his schooling and allowed 25% extra time in examinations.

**John: a profile in his own words**

My mum picked it up when I was five or six. She noticed that - I think she must have read a newspaper article or something like that. It was obvious that there were certain things I wasn't doing well at school. There was another tell-tale sign when I first started writing; they couldn't understand what I was writing and then they put a mirror up to it and they saw I was mirror writing from the board. I think that was one of the things that switched her onto it plus things like left and right and laying the table; I'd always lay the knives and forks the wrong way round and those sorts of things. So I think that was what tuned her onto it. I think she'd actually spoken to the teachers. I think they probably just said I was a bit slow. I was probably quite frustrated. I'd been told by one of the special tutors, I think "Oh you'll never be able to learn your times tables because you're dyslexic. Because you're dyslexic you need to use this square box or something". My maths teacher used to say "Don't be stupid, just learn the thing". It was frustrating not being able to do it and see that everyone else could do it.

I've never been able to hold it [information] for a short time. I need to understand it. I remember when I was at school they used to make us learn poems and things like that. I could never learn a poem word for word but I could happily read a book and be able to sort of comprehend the book and talk about the book in detail. I was better at that sort of thing than I was at being able to regurgitate it. I suspect, probably at that age I couldn't really see the relevance of learning a poem. I wasn't a particularly model pupil at school, I suppose. I was probably a bit of a Jack the Lad, playing sport and not really doing a great deal. I probably thought it was more fun to be a bit of a mischief than to take it seriously, I suspect.

There was the A stream and there was the B stream. In the B stream you did feel like a slightly second-class citizen at times because of that. I was there; I was middle to bottom of it. At my prep school there was that sort of elite tight system where it almost felt as though after a while [if] you're middle to bottom of the bottom set, there's not much you can do about it because, you know, you're dyslexic. I don't think I particularly got down

about that I just thought, well put my energies into other places and so I played a lot of sport. Played a lot of sport and mucked around and got into trouble. Just sort of being cheeky, sort of maybe mucking around in lessons. I was a prefect then I got my prefect taken off me for being silly … every now and again I'd have a silly event. I think my final report from prep school - I think the headmaster said something along the lines of "This boy will be lucky to get any GCSEs. I'll be very surprised if he gets any A-levels and university is out of the question". And I knew that I've always been the sort of person who if someone tells me I can't do something then I'm more likely to have a crack at doing it. I think maybe I saw it as a bit of a joke at one point but also at the back of my mind it was almost "I'll show you!". It was more a motivating factor. Certainly, I look at it that way now. I think he'd just about given up with me.

There's all sorts of people who find out were dyslexic and you think, if they can do it then there's no reason why I can't - so I think that was pretty much my attitude from fairly early on. I don't know if anybody knows exactly how it affects you but I see it as a bit of an advantage because … the coping mechanisms I've had to develop have maybe made me stronger in other areas than other people.

I did maths, biology and business studies [A-level]. I actually ended up cocking up my business studies. I was set to go to [name of university]. I got my A-levels back and - I can't remember what my exact grades were but I did badly in business studies and that stopped me going to university. So I retook that year and got an A in Business Studies second time around. It was an initial disappointment but it wasn't the end of the world. I think one of the things that motivates me though is that sort of, you know, sort of fear of failing.

I think the more relevant they make the exam to the job you're going to do the fairer it's going to be. I do look back at things like A-levels and GCSEs and I do wonder what they were trying to do, what they really think they were able to test. I do see them as maybe being a little bit pointless. Especially as I went into the army and I was in the Intelligence Corps and I had soldiers working for me who have far more A-levels than I did. I had officers who I was being promoted ahead of who'd gone to far flashier universities than I had and a lot of them had done that on the basis of their A-levels which was predominantly essay-based regurgitation of something that you forget almost immediately. It's a bit pointless really. I don't mean that I ever dwelt on the fairness. I always thought it was a funny way of doing stuff, a joke business. I've always thought that the way they teach people is bizarre. I think it's changed a lot over the last few years but I can see why people who were dyslexic 20 or 30 years ago would have really struggled when it was just learning by rote and regurgitation.

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Hard work, hard work. I think I work harder than the majority of them [students] on the course. It's a bit annoying at times; I'm always quite conscious when there's a slide up on the board … because I think everyone's reading speed is probably a bit faster than mine. My wife can read a book in a day; I'm always quite envious of that.

I'd describe dyslexia as a bit of a block; it's just a complete block. When it comes to spelling I'd say [dyslexia is] a blank piece of paper; for some reason I just can't see what it is I'm supposed to be showing. When it comes to reading, it's almost like a sort of machine that is just going or some cogs that aren't going around as quickly as they should. (John, phase two interview, 17 March 2011).

# Appendix 12: Exemplar transcript from phase two interviews: conversation with Henry

Interviewer: Jane Lapraik
Interviewee: Henry

JL          OK Henry, thank you very much indeed for coming today and all these lovely photographs.

Henry       *No worries. OK.*

JL          Right, OK, so we'll have a look at them. Let's see what we'll choose first, something, something, well maybe you could choose one. Maybe you'd choose the one, choose one that you'd like to talk about first, tell me what it is.

Henry       *OK. Have a quick look through. Sorry.*

JL          Any of them, it doesn't matter. It doesn't matter. We're going to have a look at all of them.

Henry       *OK. I always, I'll start at the start. OK.*

JL          What's that a picture of?

Henry       *That is a picture of, I thought a little bit artistic as well but it's basically a picture of café, SUSU, [the Students' Union café] that's the main thing.*

JL          So that's the, Students' Union Café.

Henry       *Yes. That's normally when I revise it's always good to have I try and make out half an hour break or an hour break. I go there, I normally go with one or two other people and that's just midday, eat and then go.*

JL          Right, so does that mean you've set up some sort of timetable?

| Henry | *Normally, it's, my timetable is half and half. It's very, it's not rigid it's kind of flexible but I always set aside, I know that I don't have to constantly, I know from about one or two I can go for an hour or half an hour and have a break so it's something to look forward to because I get distracted easily so I think oh, I've only got an hour left, let's work so. There's always a nice goal in the midday.* |
|---|---|
| JL | Right, OK, well let's have a look at the next one. |
| Henry | *This is the Union shop on a nice sunny day. It's a similar thing so you'll normally go here start of the day or around three o'clock just to pack up on supplies to continue because through my revision I'd start about first thing until ten or eleven at night. So that was, there was once again it was like five minutes out, I could get some fresh air, be happy, get some food, get energised to come back so that was another rewarding system.* |
| JL | So you're starting work early, sort of eight or nine in the morning? |
| Henry | *Yeah. At the start of my revision it would be around twelve but then closer and closer to the exams I'd go earlier and earlier and earlier so yeah, this was around right at the start.* |
| JL | And does this mean you're revising on the campus somewhere? |
| Henry | *I always revise on campus.* |
| JL | Whereabouts? |
| Henry | *Mainly on Hartley library and sometimes I went to the School of Biology because my friend is a sort of member there and we could get a nice private space anyway. So it's between those two but…* |
| JL | Why do you revise in the Hartley library? |
| Henry | *I, for a few reasons. One is for the computer systems. I can get to documents easily, print off our resources. Two is that I find it, I find it much better to just have a desk and it's not, you would think it would be distracting because there's many, many people but for me that's quite nice having a work* |

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*environment because I just cannot do anything at home because I get easily distracted. So I think oh, I can go and do this or I can do this but there it's I know I've just got to work.*

JL    But you build these times into your day when you know you're going to have a half-hour break or a ten minute break when you're going to the shop or a coffee or whatever?

Henry    *Yeah, yeah, yeah.*

JL    Does that mean that for the rest of the time you're working solidly for three hours and then you have a break?

Henry    *Majority. Sometimes I may have a little bit of a five minute ah, hi, someone might walk past but that's not a rigid thing but normally I plan to at least maybe do 45 minutes in the hour, read over stuff generally.*

JL    OK, let's have a look at the next one.

Henry    *This was just a picture of a pigeon.*

JL    A pigeon?

Henry    *Yeah. I was walking round, I thought oh, there's a nice pigeon. But it, I can actually say that sometimes I like to go and just relax and look at the environment and so that was here as well. And I thought that's nice. I thought oh, picture of a pigeon. We'd say that represents a duck normally because I like ducks but yeah.*

JL    Year. So you do need to take breaks from your…?

Henry    *Yeah, these, these pictures are more breaks than anything but yeah.*

JL    But they're an essential part of your revision?

Henry    *Completely. I don't know if you'd agree with that.*

JL          Yeah, OK. And the next one.

Henry       *This one is my revision beard. Now (laughter) this is, this means I basically, I can tell one I've started revision because it grows long and long and long but it's not just for show it's kind of I think to say oh, I've been revising, it's just that's all I care about. Everything else kind of goes to the side.*

JL          Right. So when you're revising you said that's all you care about.

Henry       *Pretty much, constantly.*

JL          So you actually, by growing your beard you're sort of neglecting…?

Henry       *Everything, hiding everything. I do have showers just put that out there, but yeah, normal things of, I don't really care what I wear, I don't really care about general things it's just constant work especially my finals.*

JL          Constant work?

Henry       *Constant dedicated work, yeah. Because normally, I'm so bad, I get distracted all the time so easily so it's kind of just a way to get everything out of my head. That was my, that was my…*

JL          How do you feel about that when you're having exams at university and its constant work?

Henry       *I felt, I feel, at first it's very difficult to get into and I felt I'm not very happy about it if I could say but when I actually get into that mindset and attitude it's quite nice in a way because I feel like I get lots and lots of information in and I remember it and I like that so it's positive rather than negative.*

JL          Do you think other students are having to do this constant work that you do?

Henry       *Yes and no. I'd say a lot of students do different things. When I was at the library you can see students come in and they constantly work as well my friend who has been with me all the time for all the revision sessions, she constantly works as well and I guess I, that's helped me because then I kind*

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*of tag along and go oh, and if I go on a break or something and she is working that makes me feel bad or something. But then there's others I feel that don't have to work as hard or anything like that because I feel like I have to do double the work because, you know, I've got my dyslexia and stuff so I've got constantly push.*

JL    You have to do double the work?

Henry    *I feel sometimes I do have to do double the work because maybe I forget things easier or I have to like, I can't read massive texts, it's impossible for me so I have to break it up, read it over and over again. I have to write it down then write it again on a computer about three or four times and it is, it does waste time, it's inefficient but it's the only way for me to write whereas someone else would just fine, it's done and dusted.*

JL    And you said the reason for that was because of your...?

Henry    *Yeah, I feel like it's, it's, I would say it's probably because of my dyslexia in a way. It does, it wastes time for me. It's very annoying.*

JL    How? Very annoying! Right, annoying. How do you, that's an interesting word. Right, why is it annoying?

Henry    *Because with exams you need to, you need to be, you need to be time efficient. You need to, because you have a set deadline you need to remember as much as you can, get as much information and if you're wasting time and being inefficient then it's just time wasting, it's annoying and I don't really like it. I didn't like having to go over one area in half a day when my friend next to me has done like five areas in the same amount of time. I just thought oh. It can become frustrating but I've accepted it. It's what happens and it's the way I revise.*

JL    So you've accepted this?

Henry    *Yeah, it's a part of life, you can't change it so just keep on going that's how I feel.*

JL    Yeah, OK, let's have a look at the next one.

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Henry    *Right, this may have been a mistake photo I feel because sometimes I accidentally press the button.*

JL    Right! We'll ignore that one then.

Henry    *Yeah, we'll ignore that. This is the Hartley library we were discussing earlier. I think this was one of my first or last photos, I don't really know but yeah, this represents once again going to the library. I think it was early in the day this time but yeah, that's basically the Hartley library coming in.*

JL    Which is very important to you because you said that…

Henry    *This is, yeah, this is essential. The library is essential to my revision, I can't stress that enough, yeah.*

JL    And the reason you said was that it makes you concentrate?

Henry    *Yeah, I feel like once I'm in there that's, it's a work environment so I can work better rather than at home where I relax.*

JL    And how long before exams does this start this revision?

Henry    *It depends. This time, because my dissertation was a little bit later I'd say it was after Easter, just after the Easter holidays. So I came in and then I'll come in originally about 12 to 10 and when it got close to exams I was like oh, OK, I've got to do more.*

JL    So that's about a month before?

Henry    *Yeah, I'd say yeah, it's average about four weeks normally.*

JL    And when you're doing your revision, what does this look like your revision?

Henry    *A complete mess! I'd say everything …*

JL    What is it you're doing?

Henry     *At the start, at the start what I do is I go to my booklets and then, I know this sounds bad but I question spot as you have to do this in my subject but you have like you see about 10 questions and you think oh, what can I do and you look at all the past papers and see what ones have similarly come up, you get a pattern and then I can rather than go over and blanket everything what is inefficient and wasting my time because, you know, I've only got so much time, I pick three or four questions and then I try, I get the reading list from that and then I pick five or six and I just go over them, read them, highlight them and then I write them up on paper then afterwards I write them up on the computer in my note form and I print that off and just go over from there day on day.*

JL       Right, you said booklet. Are those booklets that are provided by the, the department?

Henry     *Yeah, they're the, they're the unit, unit guide. At the start of every month we get a unit guide and then the lists that we're reading.*

JL       And you said past papers. Are those, you could get those from the Department as well, are you given them?

Henry     *I get them from the, on the library website they have the list of all the things, yeah. But this year, most of my modules were new so I didn't have that luxury.*

JL       Yeah, and you, you do this right at the start? You're looking at, you're looking at the past papers?

Henry     *Yeah, straight away so I can pick, I can strategise and pick what I'm going to do rather than blanket.*

JL       And this is about four weeks before the exams?

Henry     *Yeah.*

JL       Have you looked at the past papers earlier than that? Do you…?

| Henry | *I glance over but I don't take them seriously because I don't really know what I'm doing. I haven't finished the course because the course finishes really late so I can't, can't decide what I want to do.* |
|-------|-------|

| JL | OK, let's look at the next one. What's next? |
|-------|-------|

| Henry | *This is a, me writing up my own notes. You can see I've got my, what's this? That's a PowerPoint slide over there, there's a booklet here, yeah that's like a booklet/article, was about 10 pages long and this was a actual book what had two articles in I had to read. That took a day.* |
|-------|-------|

| JL | Two articles that took you a day to read? |
|-------|-------|

| Henry | *Yes, they were long. Put this slightly, they were very long and quite difficult to read and a lot of big words and a lot of words I don't, I didn't initially know so I had to find out what they were. But yeah, it took a long time but just going over it, writing it down and then the whole process.* |
|-------|-------|

| JL | You've mentioned the time element before. |
|-------|-------|

| Henry | *Yes. Time isn't my friend normally.* |
|-------|-------|

| JL | Why is that? |
|-------|-------|

| Henry | *It's, I did say it's not my friend but then it is in a way. I guess I don't like having to, I feel like I don't always get enough information in but then I always work best under pressure because with coursework it's an absolute disaster plus I don't get support with my dyslexia there but sometimes I do but with this time is a good thing because yeah, it's pressure that actually makes me work so yeah, I'd say I'm happy with the pressure but I prefer exams.* |
|-------|-------|

| JL | OK, let's have a look at the next one. |
|-------|-------|

| Henry | *Right. This is basically a complete mess of PowerPoints, books and my articles again. I think I have about, yeah, I've got four articles, two PowerPoints, two books and a reading list over there so it kind of shows the whole day or coming back to things.* |
|-------|-------|

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| JL | And this is a desk in the library or is this at home? |
|---|---|
| Henry | *This is actually in the biology building. I was in there.* |
| JL | And so when you're, when you're revising you've actually got this sort of that's what the desk looks like? |
| Henry | *Generally it's not, let's not say it's not clean it's not, it's not, yeah, it's not orderly but I like things to be spread out so I can go zoom and pick certain things rather than having to sort through. I find that's better.* |
| JL | And what are you doing when you're revising? What does that look like? |
| Henry | *In what way?* |
| JL | What does you revising, what do you do, what do you actually do? |
| Henry | *Oh, I normally have, I normally have a piece of like paper there and I'll pick out an argument, article and I'd normally read a page and then just maybe underline or highlight areas, normally underlining and then I would write that out, write that bit out, write the notes, the best things and then I'll go to the next one, write that out.* |
| JL | So you're hand writing these notes are you? |
| Henry | *Normally I hand write them because if I do it on the computer, it just, I don't get as better for some reason. I don't know why.* |
| JL | Although you use the computer in exams don't you? |
| Henry | *I do use a computer in exams, yeah. Because my handwriting is awful.* |
| JL | So the act of hand writing, is it for you to read it again? |
| Henry | *It's, I don't, it literally is just so I can make it into note form so then I can transfer it to computer because I can't, I can't read my own writing after* |

*about two days. It's gone! So it's literally to write up so I can do it on a computer.*

JL     And then you write the notes up on the computer?

Henry     *On the, yeah, I write on the computer, I make it nice and colourful, put a nice picture on it and then I make a, I change the font so a bigger font, some things underlined if it's important. And I just, I format it so it's much more easier for me as well. And I print that off and then it's just a good reference, really easy to flip through and then I just try and remember page for page and then from that I can, when I'm in the exam I can just go to, what was on page 2, what did Homer Dixon or somebody say, oh, he said all this.*

JL     You used, you said remembering, had revising and remembering and learning. Now, is revising the same as learning?

Henry     *For me it is, I have to say.*

JL     Is learning the same as understanding?

Henry     *That's a good question. I'd say, I'd say it's not in a way because you can learn stuff and then not understand it because you can just, with exams, I think a lot of people just regurgitate a lot of things like this article said this, this article said this but with understanding, you have to understand the different articles of what each maybe (14:29 words unclear) case study says and then compare and contrast so it's not, it's good to learn everything but then you have to think oh, what did this one say, what does this one say and then form an actual argument and I think I actually learnt this recently and I've a better understanding and then arguing in an exam rather than just listing everything.*

JL     Right, so you said some people can just regurgitate it?

Henry     *Yeah, that's not good.*

JL     Can you do that?

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| Henry | *Yes I can. I can if I've, the method I use now I can remember a lot of information and just spray it out.* |
|---|---|

| JL | And that's just remembering, not understanding, just remembering? |
|---|---|

| Henry | *I can remember, yeah, I can remember a lot of stuff but then I might not physically… I'll understand the concept but then I won't formulate it in a good argument because I think oh, I did this on this day and this on this day and I'll just do it in the order that I've done it, and that's not, that's not essentially good in an exam you have to be able to spread it out. So in this one I kind of edited it and trying to formulate an argument so as to go along as well. So that was better.* |
|---|---|

| JL | Right, let's have a look at the next one. |
|---|---|

| Henry | *This is my whole paper again and then I've got my friend [name of girlfriend] if I'm allowed to say that on the other side and she's the one that's with me all the time constantly and she's working very hard in her biology subject and she's like half a distraction because I can talk to her when I need to but then she kind of keeps me in check and says oh, we've got to work for an hour and then constantly work for an hour. So she's very, she's a very useful partner I'd say.* |
|---|---|

| JL | She's doing a different subject? |
|---|---|

| Henry | *Completely different subject, yeah. Doing biology. We have, we have big debates sometimes on our different subjects as well.* |
|---|---|

| JL | But she keeps you on track as well? |
|---|---|

| Henry | *Yeah she can keep me on track and sometimes she can be distracting.* |
|---|---|

| JL | And you say that you talk about it. Is that useful to talk to someone about…? |
|---|---|

| Henry | *I find it very useful in my opinion. Yeah, I find it, it's good to be able to say, because then as she's doing a different subject, I do politics and she does biology so they're completely different viewpoints so then we argue much better on our different sides and I find that very useful. Sometimes that* |
|---|---|

*annoys her because I like to debate but I find, I find it really useful because it can, it formulates an argument in your mind and you can use that and also I've used some of her scientific background in my arguments as well, in some scientific studies what I think is quite useful.*

JL        So this is a valuable way of revising to be interacting with someone and talking about it?

Henry      *Yeah definitely! I find it's quite, yeah, it's very useful if you can it's just you've got to make sure you pick the right people because if not I find some people just get distracted all the time and do nothing.*

JL        Do you do this with friends as well, I mean…?

Henry      *No, it's just, it's just [name of girlfriend], I don't do it with my classmates.*

JL        Right, OK. Right, OK. Let's have a look at the next one.

Henry      *This is my writing down in my absolutely horrible handwriting but I can actually see some formatting where what I do is I do, I have someone's name so I've got or a nation so I've written Hungary and I've put, I think it's two little points and then I write blah blah blah Hungary and then Poland blah blah blah and then on the other side in the column I write the person's name except I can't really see that.*

JL        I can see that you're leaving lots of spaces, set out nice and clearly and distinctly.

Henry      *Yeah, pretty much.*

JL        That's important to you is it?

Henry      *That's very important. It's actually amazingly important because then you can read it and it's just, it's so much easier. It just, it gets the point so it's person, nations, information. That's that. It's just, yeah, I think it's really useful.*

JL        And then you copy from this, you word process it?

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Henry          *Yes. It's a similar fashion. That's basically a similar fashion but word processed.*

JL             So the initial step after you've done the past papers is you do this and then you, then you go on to word process it?

Henry          *Yeah. I find the questions, read the articles, write it down on that, go onto the computer, do the same thing and then remember it. Pretty much.*

JL             How did you develop this sort of strategy?

Henry          *I think just through completely going, I don't really remember. This is just how I've done it. I remember through my A-levels I kind of done a similar thing because they used to have, I remember when I did A-level sociology they had these little booklets which was revision booklets. I mean you just have oh, topic here, little bit of information. I found that really useful but with a degree you don't have that. So I guess I've made my own and that's where it's come from. And I think that's really really useful.*

JL             If you think back to when you were at school and you first had to learn something, when you were quite young, you know, learned your spellings or something, how did you do that?

Henry          *Spellings. I think, what did I do? What they used to do, they put, they'd get a word and then it just … I had someone sit next to me actually and they were just going oh, here's a word and you just put it together so you go F and then like another one and then something like that or C and an AT and it makes cat and like you remember it from there. Or, I remember when I had to do French that was absolutely awful. Rather than actually writing the words because that was impossible I'd just draw a picture and it was like hieroglyphics in a sense.*

JL             So French was impossible?

Henry          *French was yeah, I got an E in French. That kind of suggests that I wasn't very good at all. I was kind of disappointed when I found out how much languages are important but yeah, it was a bit of a disaster.*

JL          You were assessed when you were quite young weren't you?

Henry       *With studying or...?*

JL          No, found you were dyslexic. You knew from when you were quite young.

Henry       *Yeah, at junior school I think. Yeah, I knew very, very young that I was dyslexic so that's actually that was actually beneficial because I wouldn't blame my schools at all, they were really good. My secondary school and primary school were amazing. College not so much but the first two, yeah. I think they really helped me because I remember my mother said you're going to be a dustbin cleaner probably and I was like oh, good stuff but now I'm here ...*

JL          How did that come about? How did it come about that you were assessed? Were you...?

Henry       *Well my mum is dyslexic and my grandmother's dyslexic so we kind of knew that I was, that I would be and they just, they assessed me when I went to, because I moved schools because my school in Dorset wasn't very good with it so we moved to one in Hampshire that was much better and they assessed me and said oh yeah, dyslexic and they just did the old tests.*

JL          Can you remember finding things difficult beforehand?

Henry       *What, before I knew?*

JL          Reading and spelling and stuff.

Henry       *Yeah, my reading was absolutely awful, my spelling was disastrous and it still is, it's a bit out there but yeah, it was difficult. I wasn't, I wasn't very, I wouldn't say I wasn't very, yeah I wasn't very good at class but then I was, I was amazing at certain subjects. I remember at primary I was absolutely brilliant at science so when, yeah whenever actually when someone actually helped or put effort into me I would do very well liked with history in secondary school. My teacher was dyslexic and he pushed me and then I was just like top of my class and same with sociology in A-level.  Does help!*

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| | |
|---|---|
| JL | How did you feel when you were that sort of age and your friends could read and spell better than you could? |
| Henry | *It was frustrating. I remember when before I got the help and stuff I was quite frustrated and I'd act out kind of thing but then when I…* |
| JL | You'd act out? |
| Henry | *Yeah, I would act out. I remember…* |
| JL | What you mean by that? |
| Henry | *I was, I was a little bit pushy and grrr [growling sound] kind of thing. I wasn't…* |
| JL | Misbehaved you mean? |
| Henry | *Yeah, like misbehave, that's a good term. But then I moved on to a different school and I was with a good peer group of different ranges. There were some that were academic brilliant and then some that weren't. I wouldn't say that I wasn't, that I was like stupid or something that's completely not true. I think I was like I had intelligence but I just couldn't put it into words. So I wasn't jealous of anyone at all. I wasn't upset I was quite content but I just kept on going really. So yeah.* |
| JL | And you said that your mother said that you're going to be a dustbin cleaner? |
| Henry | *Yeah! Nothing, nothing against her like. She's always said she's like proud of me and everything that she's just, she was like yeah, you can't write kind of thing or it's quite, you know, because she's, she's, she's going on 60 now and she'll probably hate me saying that but she's from a different generation and she always told me like she'd get blackboard rubbers thrown at her and stuff because she knew she was smart but they just thought she was ridiculous. So she had the same kind of … but she's, she's really, she was impressed in schools as well.* |

JL          And how did you feel when she said you will only be a dustbin man?

Henry       *I don't remember. I thought I kind of laughed in a way. I thought yeah maybe, we'll see what happens but yeah. She tells me now like oh you probably won't be able to do certain jobs because of your dyslexia or like my maths is bad and that's true, I believe that but yeah.*

JL          How do you feel about that?

Henry       *It's negative in a way because I guess it kind of pushes you like oh, I can't do everything but then I guess it's the kind of a realist approach. My, my other half isn't very impressed with it at all because she thinks oh, whatever, you know, be negative, all that but I think it's half and half. It's not too bad.*

JL          Let's have a look at the next one.

Henry       *Right oh. What's the next one? It's the same kind of documents again but I have PowerPoint and I have my articles.*

JL          Right, the PowerPoint, are those the PowerPoint of the lectures?

Henry       *Yes they are, yes they are it's just I don't normally use them because I find it's not much information at all. You need to go to the articles. But I wanted a just quick analysis, see if there's anything in there because it's an overall and then I could dig in deeper.*

JL          Do you record the lectures?

Henry       *No I don't.*

JL          Right, so all you can go back to is the PowerPoints? Why don't you record them? You tried?

Henry       *I actually have a recorder but I'm a little bit proud I guess. I don't like to go in the front row and turn it on I like to sit in the back just in my own little space.*

JL        You're proud. What you mean by that?

Henry     *I don't like being, I like to work with my peers rather than like in a different way. I don't, for example I don't use the technology centre thing in the library either. I just, I always felt like, I was like, I like, I like to earn what I get rather than have an advantage even though I have dyslexia what could be a disadvantage, I'd just rather, I'd rather earn something, I feel more proud.*

JL        So you feel if you record the lectures you wouldn't be earning?

Henry     *Yeah, and I feel a little bit like oh, what's he doing, he's being, you know, oh, he's different or he is, you know, he's special or something like that.*

JL        He's what?

Henry     *Special or something like that. You know what I mean? It's not a very good term not very PC yeah.*

JL        Where do you get those feelings from? Why should that be?

Henry     *I guess from school in a sense that it, it was kind of like oh, everyone you've got to, I have to say actually that you've got to work hard but then I can all the time but… and then I have the sense of that you should… yeah, it's just that I think it's just built in stone  and what you do kind of on that kind of thing because my, I was brought up in a very traditional like old kind of background. Got to push for what you do rather than just…*

JL        And you feel that something like recording lectures would mean you haven't earned it?

Henry     *I know that sounds really, really silly but it's half that and half pride I think.*

JL        Pride, what's this pride? What was that?

Henry     *I know it sounds ridiculous but it's just I like to, it's just literally, I don't like being kind of people to think oh, what's he doing, that looks stupid or*

*something. I just like to think oh, he's, I'm, I'm on a par with my peers by writing something down or listening rather than just doing that. I know that sounds really ridiculous but yeah.*

JL          Do your friends know you're dyslexic?

Henry     *One or two but not many. I try, I don't ask, don't tell kind of thing really.*

JL          So you deliberately don't tell them?

Henry     *No, normally I don't. Sometimes just they say oh my god you're ridiculous you can't write anything I just say well, I'm dyslexic, you know, what can I do. But if they don't say anything then no, I don't tell them. I don't see, what would be the point?*

JL          How do you feel about the term dyslexic, dyslexia?

Henry     *I think it's, I honestly think it's fine, you know, I think a lot of people have it but then I feel a lot of people don't really understand it or they just think it's ridiculous and I hear a lot of people like in government as well who just think oh it's fake and they use statistics like oh, 99% of Asians can read. Well that's because like either they hide the statistics or anything, it's just really annoying. I remember like with working environments like going into something like that I would never tell anyone I was dyslexic because … They don't, I think a lot of people don't really see it as a real disability.*

JL          And how do you feel about it yourself?

Henry     *I think it is, I think it's, I think a lot of dyslexics are intelligent and you can see that. A lot of people do achieve but obviously I'd say, yeah, I think it's really important but I think a lot of people just don't see it that way. But I think if you give a dyslexic a chance and they're intelligent they can do very well in whatever they do like, you know. Because I know one or two people who are dyslexic themselves and I think they've done really well. They've gone in to university and they're pushing hard. I think it's literally just giving them a chance like, you know.*

JL          Has dyslexia affected your experience at university?

Henry    *Yes, definitely! I could earn I think a good first if I wasn't, with my coursework they always knock me down and say oh, you can't do grammar or you can't do spelling or your formatting's wrong, two,two. I think that's not fair really. I think I'm, my intelligence is a 2:1 first level because when I'm speaking against my peers I'm like come on guys. But I'm always knocked down and that's just going to affect me in my working life as well because they're going to go oh, look, he's an idiot he can't do this and just go it's annoying.*

JL    Looking at your written work when it's…

Henry    *Yeah, my written work I'm going to freely say is awful, but my speech, my speech and oral wasn't actually tested and that's what I'm best at because I can actually share my ideas kind of thing but yeah. So that kind of limits you in anything.*

JL    If, yeah, if you could choose to be assessed in any way at university what would you choose?

Henry    *I would choose either small essays like 100 words or something or oral examinations. I'd completely put oral examinations in front because I think it's important for the workplace. You need to be able to speak but they don't test it all they do is exams and coursework. I think that's outdated and it's wrong in my opinion. And I think it does limit a lot of people. And they don't even make concessions for people in coursework because the majority of them in my opinion or what I've seen is that they just call up their parents and say oh, can you look this over and I can't really do that because mine is dyslexic in the first place so I'm meant to do, I'm doing it myself. So I'm at a massive disadvantage but they don't take that into account at all it's just oh, they've done it themselves and they haven't its helicopter  parents that do their work for them. So it's annoying. I don't think it's assessed fairly and I don't think, like it's individual cases, a lot of people do deserve the grades they get but generally, you know, I think it's kind of wrong.*

JL    So you think that if you could be assessed…

| Henry | *Orally, yeah. I'd get a different grade. I'd be on a high 2:1. In my opinion. But I'm not, I'm on a borderline 2:2, 2:1.* |
|---|---|
| JL | How do you feel about that? |
| Henry | *I feel a little bit betrayed.* |
| JL | Betrayed? That's… |
| Henry | *Betrayed, yeah.* |
| JL | But what, that's an unusual word, betrayed. |
| Henry | *I know. I feel betrayed that, because I think the educational system should give you every chance you've got if you can do it and I feel I haven't been given the chance. I feel like I've been kind of stabbed in the back because of my spelling and grammar when it shouldn't be on that it should be on your education and your understanding. And they don't take account of that. It's just oh, can you spell. I think it's very archaic, it's very archaic and it shouldn't be that way, especially not today in my opinion but I think it will take a long time until they understand that.* |
| JL | And you said especially not today. What do you mean? |
| Henry | *I think with because with I think in the past 50 years 60, 70 we've gone more and more I think secondary school has really made great lengths in taking the needs for others and like pushing them where I think here like no … at university, it's just their way. Because they haven't really made steps to take in any different groups. Maybe it's because the majority in here are from grammar schools or something like that and, you know, they don't have any dyslexics or they don't have any things like that so what's the point but? Then you do get people from different backgrounds and, you know, it's a natural disadvantage. Maybe that's just my ideology or something like that but yeah, that's my opinion.* |
| JL | And how was it different school? You said schools have made changes. |

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Henry    *I think, I came from a good old state comprehensive school. It was a really good one. But they've, I think they've made a tremendous change because from what my mother said from a backwater you can not being able to spell from today you can actually taking you out, giving you extra help, yeah, it really helps because I was given extra help in (30:53 word unclear) sit with me, do that, or I knew some other person who actually had someone sit next to them and explain it. So I didn't need that myself but it really helped them so schools, my school, I don't know every school, I can't generalise but my school made so much effort.*

JL    How about assessment in the school system?

Henry    *I guess that goes back to the general GCSE what's not really them it's more the state but you do have one or two oral exams and that's where I scored highest. Because I was put, in GCSE I was foundation, stuck in there, you know, you can't spell. It's not their fault it's just how it is and I can't see that was fair but when I did orals they found so I'd always get A's and B's but when it was coursework it would be C's and D's. I think that shows, you do need to write because it is important but it shouldn't be the fundamental factor they should spread it out because I remember looking at a Canadian university, they spread it out. It was 20% oral, like 10%, 20% exam, 20% something else, something else and it spreads the whole thing and I don't understand why we haven't taken that on because I think employers would like that. I certainly would. But yeah we haven't, we just haven't, we're stuck.*

JL    Right, let's have a look at your next one.

Henry    *Righto. This is [name of girlfriend] being silly and she didn't know I was taking a photo and I just, so that was basically it. But, we were in the biology building and that's basically her working on the other side and I'd say this could be my five-minute break kind of thing after my revision. It was late at night. I'd say this was about 10 o'clock at night we were doing this because you can't see out of the windows.*

JL    So when you're in your concentrated period of revision you work from nine in the morning till sort of ten at night?

Henry     *Yeah, right at the end. I, first thing, get me in there, so I think when we're in, like three or four days in it was 7:30 to ten or eleven. I just constantly, constantly went in, yeah. So I was dedicated. At the start I'm like, (sigh) I can't be bothered kind of thing so it takes some time to get into that but right at the end…*

JL        And throughout the year what's, how much work are you doing?

Henry     *Not much. I've got to be honest, not much, yeah.*

JL        See you leave the revision till the month before basically?

Henry     *Yeah, it's, it's, it's annoying but I just, I always work much, much better under pressure. I guess that's the problem with coursework is again is that they give you these deadlines two or three months behind and I'm thinking well what's the point of starting now I need to learn everything? So I've got to wait so I'll know there's a week left I've got to do it. It's my fault in my opinion in that way but that's just how I am.*

JL        If you're assessed orally, how would that work?

Henry     *Well it depends really. Could have panel, you come in, they could ask you questions on your certain topic but they could say oh, we're going to ask you a question from weeks 1 to 4 and you revise these weeks and then they could ask you a general question. You could go on for there 10 minutes, you could, it would be like an interview in a way. Because I remember the School of Biology have vivas (?) and they're asked general things about the projects, and that's, they have to make a break for them which is what grade they're going to get normally and I think if we had that at my school I think that yeah, it shows a much different thing. I think it would be really useful. But as well it shows people that we're weak in that area and it shows that not everyone has the oral skills and that should be celebrated rather than ignored.*

JL        Right, let's have a look at the next one.

Henry     *OK, this is my drawings because I like to draw and yeah, this is me when I get distracted again.*

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JL          That's not a drawing necessarily that's going to help you with your revision?

Henry       *No, I don't think a drawing…*

JL          Just relaxation is it?

Henry       *Yeah, a drawing of a duck doesn't really help me with revision unfortunately. If I did biology it might do but no, it literally is, oh, I feel like having a 10 minute break, let's draw a duck.*

JL          Right, which is perhaps important to your revision that you have frequent breaks?

Henry       *Yeah, I like to draw. I'm not good at it but let's draw.*

JL          Next one.

Henry       *This is me building things. I've been doing this all throughout revision. I just, it's one of those things that's like, you don't have to go out you can have three or four minutes.*

JL          So you let your mind relax by…

Henry       *Yeah!*

JL          … Building your highlighters?

Henry       *Yeah, and I try and … as I can really. It's a bit of a challenge but then whilst I'm doing that I can relax and I can think about general things as well. Yeah.*

JL          Yes, yeah, OK. And the next one.

Henry       *This was a new thing I did this time. I decided to do, what we call them?*

JL          Mind maps?

| Henry | *Mind maps, that's the word! Yeah, I've done mind maps. But I've done in a strategic manner where I start, I write the thing in the middle, so the topic, and then I kind of do the just a general map where I start and I kind of wiggle along those. If you look closely you can see the arrows so I see oh, I go down there and then I go round there and I go down there.* |
|---|---|
| JL | So it's a flow diagram? |
| Henry | *It's a flow diagram, that is what it's called, yeah. And I have different colours for the different topics and this is, this is actually amazingly brilliant. I wish I'd done this earlier.* |
| JL | And it's on A 3 paper? |
| Henry | *No, it's A4.* |
| JL | A4? |
| Henry | *It is A4, yeah. But it might look bigger because I stand about four or five together and slip through.* |
| JL | You said you wish you'd done this earlier. |
| Henry | *Oh yeah. It's just so amazing because you think in your exam you just remember what it looks like, you don't remember the words and you think what was that over there? It's like oh yeah. And it's just it was brilliant jog the memory. I would suggest it to anyone.* |
| JL | How did you devise this strategy, develop the strategy? |
| Henry | *[Girlfriend's name] done it. [Girlfriend's name] was doing it beforehand and I said what are you doing and she said oh, I'm doing this and I thought oh, I'll give it a go. So I took this off someone else.* |
| JL | She's not dyslexic is she? |
| Henry | *She's not dyslexic at all, she's brilliant.* |

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JL          No, so this is a new strategy for your final exams that you've…

Henry       *Yeah, this is a new thing. Might have been a bit of a risk but it totally paid off.*

JL          What do you mean a bit of a risk?

Henry       *Because sometimes it can be, if you do something and it doesn't work out you've wasted a lot of time. But I thought why not, let's try something new.*

JL          And you said something about time earlier being…

Henry       *Time yeah but like I said I like pressure but yeah, this, this was a…*

JL          So you invested some of your precious time in a strategy?

Henry       *Yes, and it worked, it paid off, and I carried on. I did one page, I liked doing it and continued. So I had two different, I had two strategies going, two different methods of revision going at the same time.*

JL          Right, and you say that the actual, the use of visualisation technique was better?

Henry       *Yes. Yeah, this was brilliant. With the other one I do try and make it a long list but then I try and visualise that one as well. So it works in a similar premise but with this one it was a, it was slightly different, it flowed. Like you said, it was flow different and yeah, it was good, definitely good. This one I used for my most difficult subject actually was finance and economics. I have no, no previous thing and then once I'd done this I was just yeah, it just clicked, completely much better.*

JL          As you said, this was a risk I think was what you called it.

Henry       *Yes. Yes it was a risk. It's not, sometimes it's not a good idea to try and use things on your final exams but I thought why not and it paid off so I was very*

*happy. Yeah, and as I saw [girlfriend] doing it, she'd recommended. She said oh, it's amazing so why not?*

JL          Why had you not looked at these sort of things before?

Henry       *I actually tried this in the first year but it just, I didn't, I used bigger sheets and I kind of do it, I did it as a mind map and that didn't work at all. I thought oh, that's rubbish, absolute rubbish so I just, I went onto that other one and stuck with that. Because I saw she was doing a mind map I thought OK but I changed it slightly to the flow, was it flowchart?*

JL          Flow diagram, flowchart, yes.

Henry       *Flow diagram, yeah. And that worked.*

JL          And you've got the colours as well.

Henry       *Yeah, the colours, the colours are amazing it just, it's about breaking it up. Literally it was about breaking it up because if it's same text, same thing you won't remember it.*

JL          And what is it you're writing here? Is it just little bits of notes or…?

Henry       *Well it's, I write, at the top I write so it's like macro-economic problems or micro economic problems and then you just list all the issues so it's like banking or like CIA kind of things. It's just like one sentence and that's, that was the problem. And you can, you can build on that in the exam. So it was just, it was main topic and then issues. That's what I did.*

JL          Right, let's have a look at the next one.

Henry       *This is my take aways. I, this is really bad but I always eat through exams. It's not healthy it's not good and I have to suffer and go to the gym afterwards. But yeah, this is what I do. It's a reward system once again. It puts me off, it keeps me going and plus it's a yeah, it's basically a reward system.*

JL          Why do you need a reward system?

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| Henry | *Because I have this, I have this thing where like I always want to stop and do something else. I'm just always so distracted it's really disappointing in a way so if I have a reward system that's constant kind of keeps my mind distracted I think oh yeah, I can do that, I can get something. Yeah, and then I just work, I worked harder. That's my thing. It would be better if I could find a different reward system that didn't destroy my body but that's what I had so I just went with that one, yeah.* |
|---|---|

| JL | OK, let's have a look at the next one. |
|---|---|

| Henry | *Oh, this is the articles on the side and I thought rather than use some shabby rubbish paper I went and bought a nice new book in Jon Smith's. That was a nice blue one and then what I did was I had two, I wrote two subjects but I had them in different areas so I had the front page would be economics and the other side would have like security. And I'd write backwards in there and I could flick through it and then I'd use that to write on the computer.* |
|---|---|

| JL | Right. |
|---|---|

| Henry | *Yeah.* |
|---|---|

| JL | OK so it's just different way of doing it. What about the next one? |
|---|---|

| Henry | *This is just everything again plus, this was actually on the day of my exam actually so it was literally, I was going through my, my flowcharts and I was going through PowerPoint slides again just to check because the exam I couldn't spot a question on this because there was just two questions and you had to make everything so it's like oh God. So rather, what I did was I tried to remember a lot of subjects and then anything I didn't remember or it was just, I just have, I maybe put a mention in. I used the PowerPoint slides instead. So it was a little bit of a different technique because normally I try and discard them as early as possible because it's what I've always done.* |
|---|---|

| JL | You used that word remember again so was that understanding and remembering or…? |
|---|---|

| Henry | *It was 70, 70, 75% understanding and the rest remembering.* |

| JL | Do you need to be able to understand to remember? |

| Henry | *No, I don't think so.* |

| JL | You can remember without understanding something? |

| Henry | *I think, I think you could probably spray some stuff without understanding it, definitely. I definitely think you can.* |

| JL | So you could just remember something without understanding it? |

| Henry | *Yeah, you could do.* |

| JL | Can you? |

| Henry | *Yes I think I can. Because I remember I wrote something about the Danish Market System. I'd no idea what that was but I wrote it. Oh, Danish Market System … because it was, I understood the main theory behind it … mention about that but I didn't have time to right understand it or like read a whole article about the Danish Market System. Similarly, there was the Danish Market System full stop, that will do because you can't go in too much detail, it's only two hours.* |

| JL | Do think that your peers who are not dyslexic can remember things more easily so they don't need to understand? |

| Henry | *They could do. I couldn't, I couldn't generalise I would say.* |

| JL | What are they doing more quickly because you say it took you longer? |

| Henry | *Yeah. Yeah, I think from seeing people who I work with, I think they could just go through, they could go through articles quicker, they could go through books quicker and then they can get information. I don't know if they remember it or understand it themselves, who is to say but with me,* |

*yeah, I think it just takes me longer. And plus they can go throughout the year and read booklets and stuff and I'm just like oh, I can't do it.*

JL  The reading is taking you longer?

Henry  *Yeah, reading takes me longer. I can't do it and start in the middle of the year it's just, I don't have that mindset so yeah.*

JL  So if the material was accessible, not, it wasn't just as a written format…

Henry  *Oh, if it was online and it was oral or something that would be brilliant. I remember actually I went online and there was something on economics that was just purely videos on YouTube and it just explained it. So one or two of them were (43:07 words unclear) and that was amazing, absolutely amazing. Two, two videos completely got it in my head. I remembered that and it actually drove a passion for me in economics because I used to hate it and then I watched that. I thought I understood it like that and I absolutely loved it. Yeah, so. Online oral. Brilliant stuff comes up.*

JL  Right, next one.

Henry  *This is the reserve collection. This is where I used to go and sit. This is my little area so I'd always go in the corner somewhere there and there was just a few books, just the essentials, I don't have to phaff about in the main library, so yeah.*

JL  Why is that important? It's the reserve section. It's because it's quieter?

Henry  *It's, actually it's much, much louder, much, much louder things and a lot goes on. I think that's good because I like to be, I like to be distracted the little bit so I'm thinking oh, what's going on kind of thing. But then I can also sit in an area and be relaxed as well because if it's complete silence I can't work. If it's complete noise I can't work it's the bit in the middle in the reserve collection.*

JL  OK, next one.

| Henry | *This is my bed. [Girlfriend] told me to take this photograph because she thinks I sleep a lot. That's true. And so yeah, it's just generally...* |
|---|---|
| JL | It's essential to your revision is it? |
| Henry | *Yeah, I'd actually say sleep is very essential to my revision yeah. If I don't sleep I would just lay in bed until 12.* |
| JL | And the next one looks like you're working in bed there. You've got your laptop. |
| Henry | *Oh yeah. Oh, this is actually what I do is from when I get home I have something called Hen [gave an abbreviation of his name] time, it's my own time.* |
| JL | Downtime? |
| Henry | *Hen time.* |
| JL | Oh, Hen. Hen as in Henry! |
| Henry | *Am I actually myself? Yeah. Where I completely ignore everyone and I just enjoy myself. I watch a video or something just to relax my mind because if not I'm just constantly thinking you need to be able to relax at night. So what I do is I have an hour to myself, I watch a video of something I enjoy, put it down and go to sleep. So I'm always, I always take myself an hour at the end of the day for myself. She didn't like that but my time. Oh, she didn't like having my own time all the time. She liked attention.* |
| JL | But it's essential to your revision that...? |
| Henry | *This is the most essential thing for revision is me having my own time at the end of the day, definitely, yeah.* |
| JL | Why do you think that is? |

Henry          *I just (laughter) I just need to, it's just a relaxing thing and it's like, it takes you away from reality in some senses where it gives you just, yeah, just in time to de-stress and relax at the end of the day so you can start it all over again because it can become straining when you have to get up at 7:30 and come home at 11:00 so it was an hour of just (loud sigh) kind of thing.*

JL             Do you resent this having to do these long hours of revision, it taking you so long?

Henry          *No, I don't actually I enjoyed it. I think it made you feel proud at the end of the day that you've done a full work and you've not been distracted. Rather normally when I could only do half a day and I'm, I usually felt quite disappointed with myself so no, I was happy.*

JL             And was, this was previously when you were revising you mean you could only do half a day?

Henry          *Yeah, at the start I could only do half a day and I feel disappointed so when I could do a full day I, at 7:30, 8:00 till 10 or 11 at night, yeah, I was proud of myself.*

JL             And how do you feel when you think actually my friends on this course don't have to work as hard or that you'd be getting a lot more in?

Henry          *Yeah, I would, I'd be, I wouldn't say I'm quite jealous or hold a grudge against them, that's just life. But it's, it's a little bit annoying. I feel, I guess it's like you're not rewarded for the time you put in at the end of the day. I might come out with a high 2:2 and then they come out with like 67, 68. Why? That's just how it is they can write better than me.*

JL             They can what?

Henry          *They can write better than me.*

JL             They can write better than you.

Henry          *Yeah, and they can write better. That's all it comes to. I feel with the social sciences, I'm going to put this down here, it's, it's not what you know it's how*

*can you write and that shouldn't be the case. It should be extremely important, especially in social sciences to actually know the knowledge. Because I feel quite worried that a lot of students from good universities, a Russell Group university, can go on to a Masters thing and it's only because they can write very well but then their knowledge is average and it kind of pushes people off that may be very intelligent. I'm not saying myself but for other people it would be very good on a Masters or Ph.D. but they're just being pushed out. And statistics speak for themselves, I think, what, about I don't know how many people are dyslexic like 5 to 6% come to university and then Ph.D. it's even lower and it's other groups as well. It seems like small groups just get cut out on each education level. Why is it happening? But yeah.*

JL          So you think dyslexia cuts you out of higher…?

Henry      *Higher education. I think it's totally does. You find as well that there's more dyslexics in lower established universities or like less academically brilliant universities, let's say it like that than the Russell Group or some of the 1994. Why is it happening? You know.*

JL          Would you like to go on and do a Masters or Ph.D.?

Henry      *If I had the opportunity and I had the grade, yeah, I'd love to. And the funding!*

JL          What do you want for the opportunity?

Henry      *The opportunity would be if I got in, if I had a high enough grade because I think if I end up with a 2:2, all doors are closed. Same with work. But if I, I would love to go on to a Masters I think that would be amazing but I doubt I will.*

JL          Why is that doubt there?

Henry      *One is funding and two is I think I'll probably, the highest I can get is a two low one. I don't think I, yeah, get in anywhere decent.*

JL          And do you think it's to do with your dyslexia?

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Henry     *I would think majority. Dyslexia and my own attitude around it I think. I think I have this, I think. Because I haven't, you don't get long-standing rewards, you kind of, I kind of gave up. It was the same with my GCSEs and some of my A-levels, I just give up. If no one says oh, you're doing a good job or something, I'm just like [dismissive noise]. And that was ridiculous. I shouldn't have done that and it's really annoying but yeah.*

JL        What you mean by that? Can you explain that a bit more? You gave up?

Henry     *Yeah, it's, it's like if you don't, if you always get bad grades and not good something like a well done or you're getting back your results it's like oh, you spelt it wrong, ha ha sucks to you. Then you think (sigh) ridiculous. I, you become disenchanted with your degree. I definitely became disenchanted with my degree because I used to do politics and sociology. I gave up sociology because it was just always get a 2:2.*

JL        When was that?

Henry     *At the start of the third year. I thought I'd give it another year's chance. Got nothing. Absolutely ridiculous. No help at all so I thought stuff it I'll go with politics.*

JL        So you were getting these comments on…?

Henry     *On my forms, yeah. I remember one of them in my first year I spelt taxes as taxis and he put a little joke at the bottom. I thought OK. Yeah and but you can't put on there that you're dyslexic because it doesn't matter with coursework because supposedly Word can fix it but let me tell you from all the job rejections that I get, it doesn't fix every single word. It's very annoying but, you know, once again that's life. I deal with it.*

JL        So actually you, it's altered the course that you're doing, that you're taking. Your dyslexia has meant that you…?

Henry     *Yeah. Essentially I think if I didn't have dyslexia, I'm happy I've got dyslexia because I think it gives you a good attitude but I think if I didn't have it I'd probably be doing, I'd probably be on above where I should be in my*

*intellectual level. That sounds really big headed. I'm not, I'm actually quite
modest generally but I think yeah. You would, I think with all dyslexics, if
they didn't have that basic grammar and spelling problem and reading
problem they would be represented much higher in the academic ladder.*

JL          But you said you actually changed your subject?

Henry     *Yeah, I got rid of, I cut off sociology because I was just constantly put at 2:2
because spelling and grammar was an absolute problem where with another
one I would hit 2:1 at some point. I don't know why there was a bit of
variance here or there but yeah, I did, it was my strongest subject so I
thought I had to stick with something stronger. Anything to get a 2:1. So I
had to cut it off. I enjoyed sociology but I just became disenchanted with it
so.*

JL          And disenchanted, this was because of feedback you were getting?

Henry     *Feedback was rubbish, the grades weren't good with the time I put in so yeah
you just, you do become. It, it's, it is annoying if you, because it's a long, it's
a long process and if you're not getting the rewards, why?*

JL          And the rewards were the feedback you were getting from…?

Henry     *Yeah. There were, a reward, it's always nice to get maybe oh, a 2:1 and oh,
this is good and here's how to improve rather than this is wrong, this is
wrong, this is wrong, rubbish, rubbish, do your grammar. Constantly. I
would never …. Sometimes I'd get some good comments because I remember
one thing I got a first in and it was like really good stuff so I had a little bit of
feedback how to do better, oh that's brilliant and that kind of pushed me to
go on. And that was on the politics side and sociology was just, you know.*

JL          So how do you feel when you do well?

Henry     *Oh I feel, I feel pretty proud because it's a surprise. It's absolute surprise
when I get a good grade because I'm normally used to getting 2:2s, so yeah,
that's nice. I feel, I feel quite happy now. It kind of motivates you to work a
bit harder and continue the cycle.*

JL          But it's a surprise?

Henry       *Yes, absolute surprise because normally I, I'm always praying for a fair grade but it's normally disappointing.*

JL          A fair grade, what do you mean by that? That's fair to you?

Henry       *A fair, no, just fair to the system. I get low 2:1 is a fair grade I think. That's like including my disability of dyslexia. I think a fair grade would be 2:1. It's not too bad. You know.*

JL          And, and so it's a surprise when you do well?

Henry       *Yeah. It's a brilliant surprise when I do well and if I ever get a high 2:1 or a first I'm going to dance then!*

JL          You're dancing?

Henry       *Yeah dance in the room I think.*

JL          And how about when you don't do well?

Henry       *Oh, it's disappointing. Like once or three or four times I actually think oh, I think I just wish I never came to university. I think what's the point? Because if you get a 2:2 and you can't spell you're not going to get a decent job, you're not going to go in to do some work and then it kind of brings me back like oh, what I'm going to be is this … and it kind of, it's an absolute knock back. Especially when you see some of your peers who just laugh, dance and do you know, stuff all because I never usually go out I normally stay in and just kind of you know, do my own thing like revising or reading articles. And they may get higher grades than you and it's like OK. That is not a correct system. Especially when they have helicopter pads.*

JL          So how has dyslexia affected your experience do you think at university?

Henry       *It's generally, generally I come in with like a positive attitude to dyslexia because I think you are, I think generally you are quite an intelligent person*

*and you've got that. Actually if you know you're not stupid let's say it like that. But then it's, it's negative in the point that you know you'll never get the highest grade and you've always got a, you have to be satisfied with an average grade or just, you know, and it's an absolute knock back especially when you see people getting massive like 80, 90% and like why? I kind of feel like I did the wrong subjects. I should never gone into the humanities, social sciences like if I went into pure science I think they make, it's less about, it's much more about knowledge and less about massive documents and typed pages. So I think social sciences, humanities are much more anti dyslexia rather than the pure sciences. I think that's where you find more dyslexics in those areas.*

JL        When you chose your subject at university did you take your dyslexia into account?

Henry     *I did but I thought it wouldn't be too much of a problem I thought because my strongest subjects were in the social sciences and I absolutely love it. I just, I've always had a passion like helping others and all that and I think that social science is the best way to go. So that's why I went into.*

JL        But retrospectively you could do it again?

Henry     *If my, yeah, if I do it again I would love to, if it was a different system, if maybe there was like it was marked differently I'd completely do it again. But if not I may have gone into maybe a completely different subject. More science and maybe environmental science something.*

JL        And the reason for that would have been?

Henry     *Oh, just different marking. So it was...*

JL        So it's assessment practice? How you're assessed?

Henry     *Assessment. Literally just assessment practice. If there was more oral, yeah. And I still have interest in ... so why not?*

JL        So that way then you've got...

Henry     *I would have got, yeah, I would have got a better grade definitely yeah. I know it's sad to say but yeah definitely true.*

JL        Yes. If you could imagine dyslexia has some sort of thing or picture in your head how would you describe it?

Henry     *I'm going to get something good! I could imagine it like a less, imagine a Greek philosopher, he's a very intelligent person but he has both his hands in a shrugging manner and going like that…*

JL        In a shrugging manner?

Henry     *A shrugging manner like oh [big sigh] you know, kind of like frustrated, that's it. You're intelligent but you're frustrated. That's dyslexia! Yeah.*

JL        So this is the picture you have in your head?

Henry     *That is my picture. It's quite, it's a fun picture.*

JL        Tell me a bit more about it.

Henry     *So yeah, I'd say like you know you, when you think the Greek philosophers and you oh, very smart, very brilliant stuff but then you'd think you're being held back and you're just, like you're just a bit frustrated, you're a bit annoyed and that's dyslexia like. I think the majority of dyslexics are quite intelligent but they're held back and they become frustrated and you see a lot of them, a lot of dyslexics become put off and then they go into menial work or even worse they misbehave or go into crime and then you have those that actually try and then some of them succeed but the majority are stuck in the middle kind of thing. And I think, yeah, it's like you have the ability but you're kind of stuck. That's, that's…*

JL        And the stuck bit, what, what's, what's causing the stuck to happen?

Henry     *I think that's, it's just the system we're in. I see that, the society we're in is a stuck system.*

JL        And what's that?

Henry     *That is basically how things are assessed, how society works, what's its priorities? Grammar and spelling over knowledge and what you know. Yeah. If it was more relaxed in that area and it accepted it it would be fine. I think it really should be especially at this level but.*

JL        If you're giving some advice to a dyslexic student just starting university, what would it be?

Henry     *I'd say, that is a good question. I'd say continue, do what you want to do but seek, seek a lot of help and guidance and do whatever you need to do. I mean especially don't let your pride get in the way. Just do what you have to do. Take an extra things like extra help and just keep pushing it because you need someone to look over your work, to do your coursework and stuff, you need someone and you need someone to yeah.*

JL        If, if the university could, how could the university makes things better, easier for dyslexic students?

Henry     *I think for one if they were wanting to become like a less drastic option is to put the yellow sticker you get in exams on coursework and completely ignore grammar and do knowledge alone. If they were to do something drastic they should do oral exams. I've suggested so many times to my school do oral exams and obviously they ignore you but yeah.*

JL        What's the reaction been to that?

Henry     *I got no reaction … Normally I say it in like surveys. It's the way it is. It's the normal thing. I know a lot of lecturers actually say oh, I wish we didn't have to do it like this or I wish we could do an oral examination but it's how it is. It's the administration staff over the academic.*

JL        Why do you think it's done the way it is?

Henry     *Because that's how, I honestly think it's just…*

JL        Because …

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| Henry | *It's how it's always, it's easier … Because I know they have a lot of students and it would just take time. I can imagine it would take a lot of time assessing each, every single one orally and that's why we've got vivas. It's only maybe 20 or 30 people. Or they only do group work where it's like 10 or 15. Yeah, 10 or 15 in an oral exam what's also not very good because then it doesn't give you a complete good chance to shine. But yeah, it's just I think it's probably time. They have what was it, 25, yeah, 2500 students here. Can't oral exam them all. OK so that's their attitude, that's fair enough but then you can think how do the Canadians do it? There is a way. That might be a problem.* |
|---|---|
| JL | Is there anything that I have asked you that you think is relevant? |
| Henry | *No. Hope I haven't sounded too pessimistic. I'm generally an optimistic person but yeah.* |
| JL | Why do you think it might have been pessimistic? |
| Henry | *Because whenever dyslexia or something comes on I'm always like oh, the words do really but nothing is going to happen but normally I'm quite happy.* |
| JL | Everything was doom and gloom in regards to dyslexia? |
| Henry | *Yeah.* |
| JL | Why? |
| Henry | *Oh, it's just, I just think, I don't know I just think it's much more difficult in life. I remember a sociologist was talking about like when people were born in a lower class system or something they'd say you have to start behind everyone else, just build up. I think with disability in general, dyslexia as well it's the same or if not worse because you can't get, you can change your class, you can always push harder and change the system like they've made things allow for dyslexia. That's always going to be with you and society is not going to change you're just going to have to keep on pushing so.* |
| JL | You think society is not going to change? |

| Henry | *No. I don't think so, not in our time anyway. There might be small changes but I think maybe the secondary education and primary that might become better but I don't think higher education, I think it's very much rigid and it's, they're proud of their excellence. There is very much a proud thing there as well. They don't like to change. Yeah, and I think a lot of them as well, it's all about money.* |
|---|---|
| JL | How will you feel when you get your degree? |
| Henry | *I think, if I got a good degree I think…* |
| JL | If you got 2:1? |
| Henry | *If I got 2:1 I'd be happy Henny. If I got a 2:2 think I'd be really, really disappointed. Really, really disappointed.* |
| JL | And you put that down to your dyslexia? |
| Henry | *Yeah, I would. Honestly actually I would, I think yeah.* |
| JL | And the assessment practice? |
| Henry | *Yes. Yeah, that might sound bitter but yeah, I would. Yeah, overall I think it's the, the assessment practice is not very good. I just wish that every single module wasn't coursework and exams. I'm half happy with exams because you get that yellow sticker what is a godsend but the other one, like the yellow sticker is not perfect but.* |
| JL | When you applied to university did you look at how the course was assessed? |
| Henry | *No, I didn't actually. I looked at dyslexia services, looked at one or two of them. I asked about that. But I never thought about assess, how it was assessed because with my GCSE and A-level I would be quite bad in coursework but it was more about exams so I felt it was an exam so I thought it was fine. But here it's much more about coursework and that's my biggest weakness.* |
| JL | In retrospect would you, if you were applying again would you look at this? |

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Henry	*Yes, yes, definitely would! I would definitely look and think how is it assessed and I would look much more on exams and maybe different areas because I'm so jealous of the School of biology because they do posters and they do oral exams and I'm just like (sigh). I wish I was a biologist I would have done...*

JL	So you might have changed your subject or you might have changed your university presumably?

Henry	*Yeah, yeah I would have done. Well I love University of Southampton I actually do love it, I'm not being betrayal to the university but yeah, if it was different I would have done, definitely would have done.*

JL	It affected that as well. Well thank you very much indeed.

Henry	*It has been a pleasure. Hopefully those photos have been OK.*
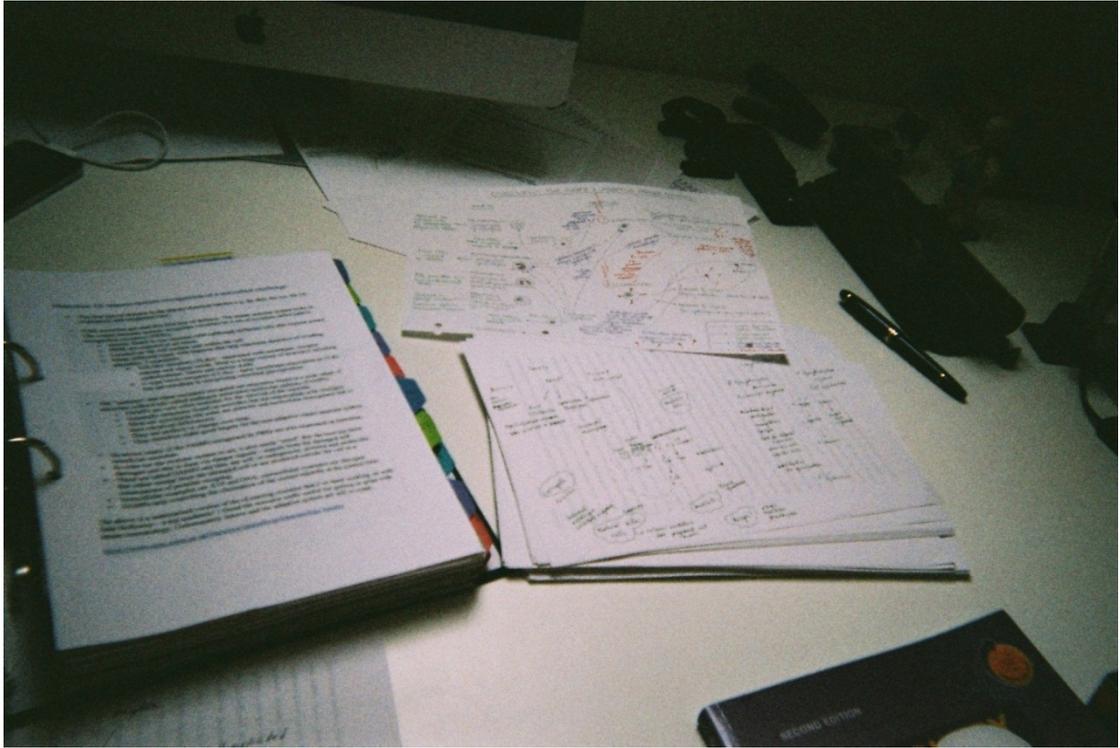
# Appendix 13: Photographs taken by participants after phase one interviews (Eric) and prior to phase two (Henry, John, Tim and Eve)
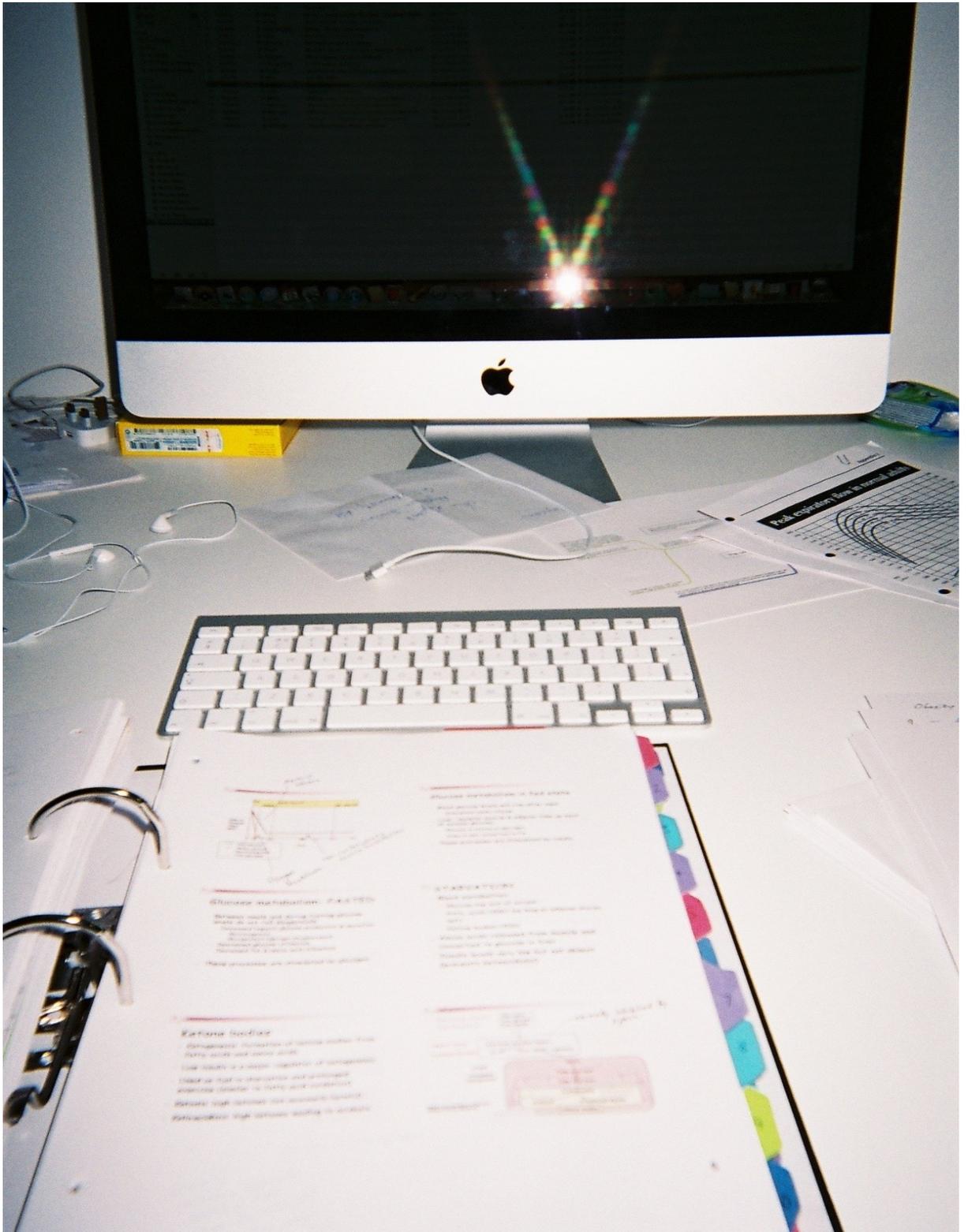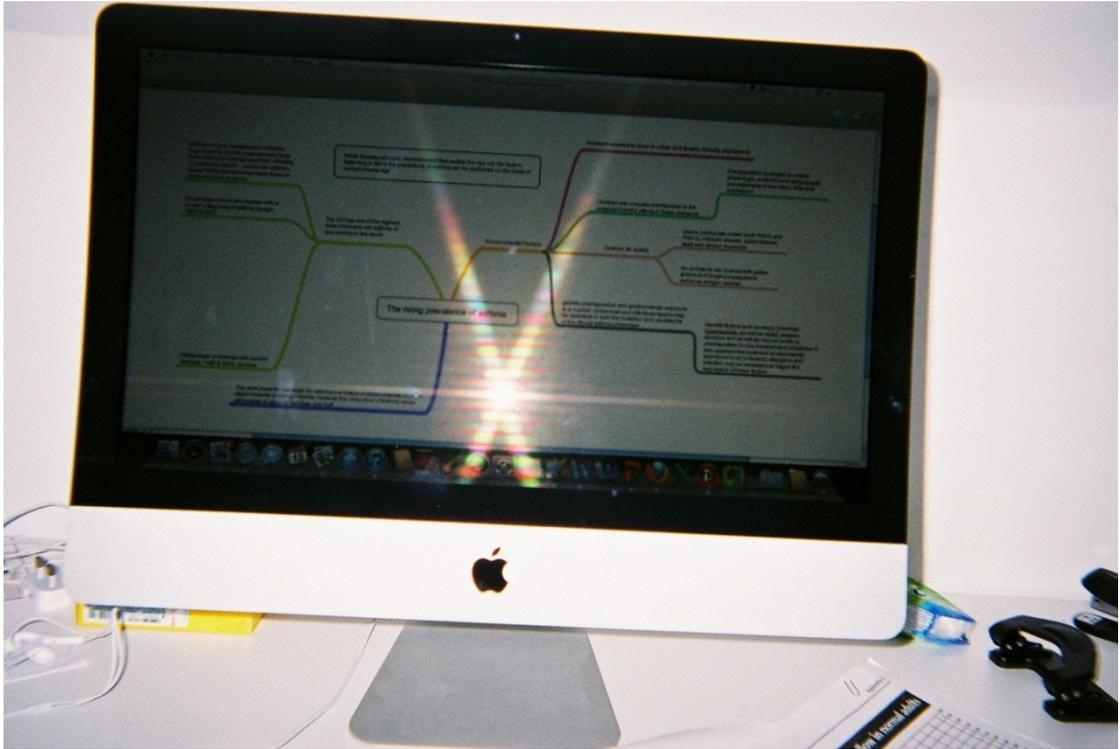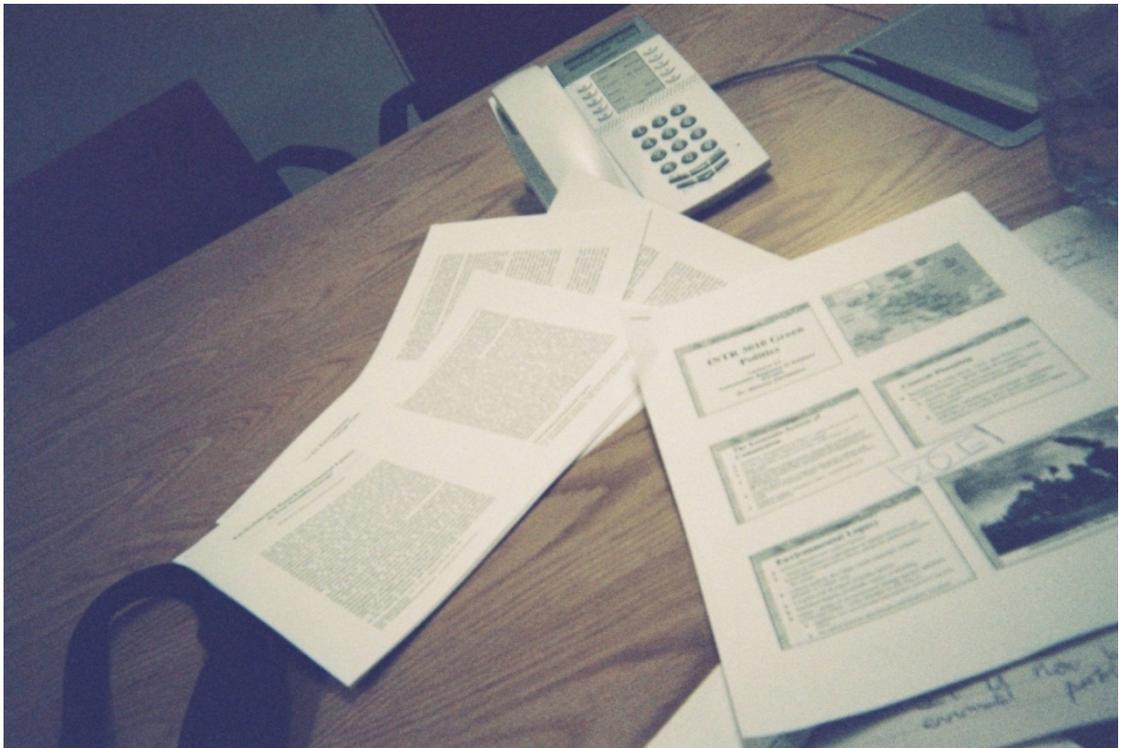


John

John

John



John
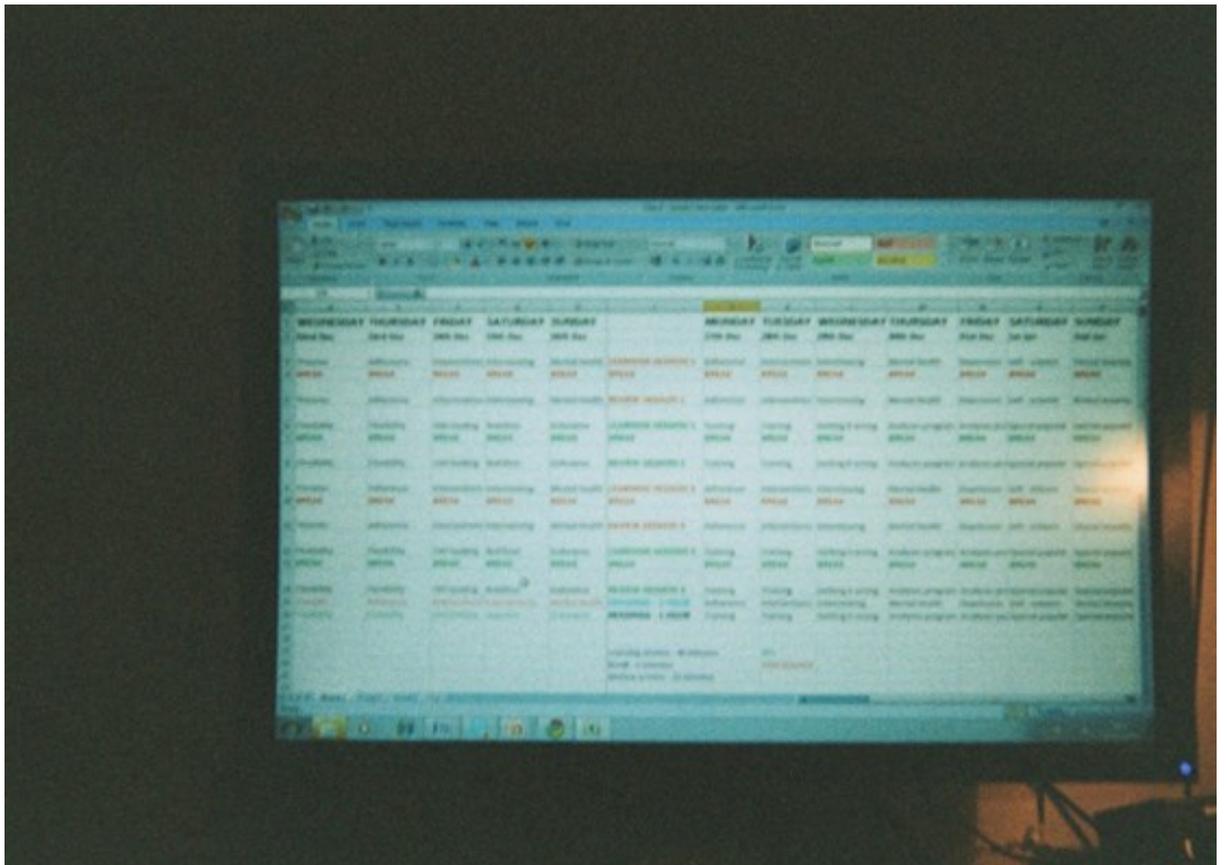
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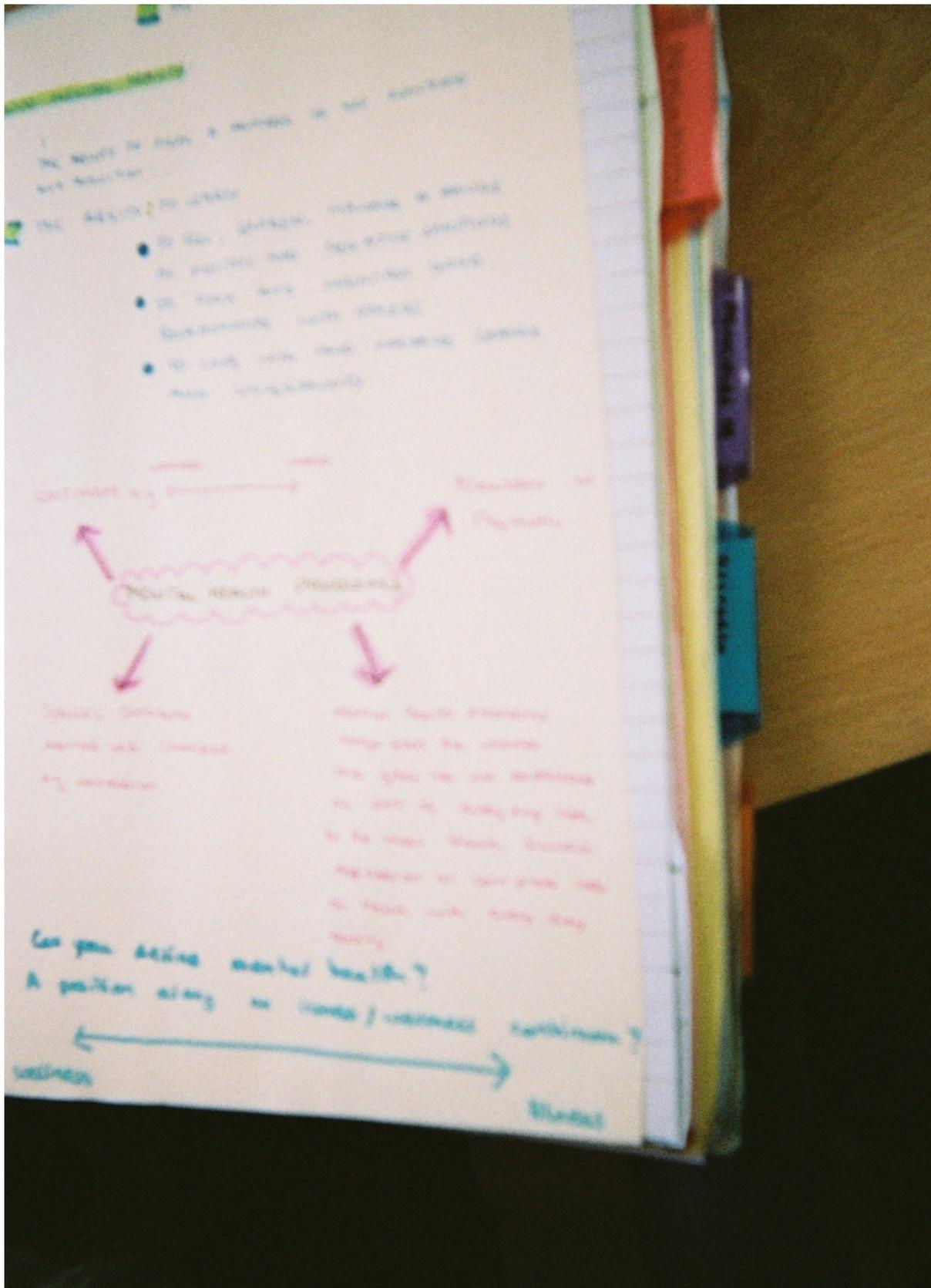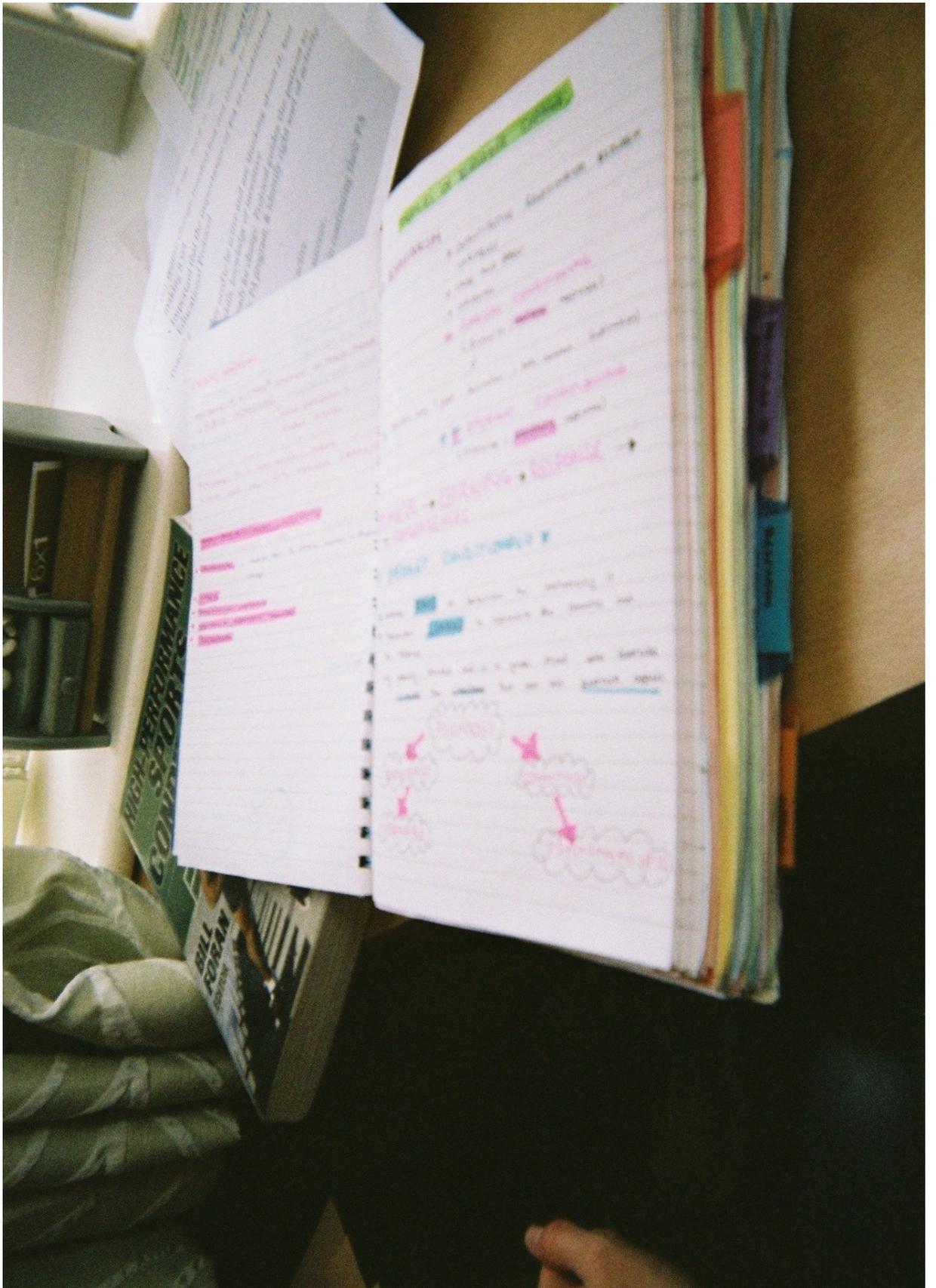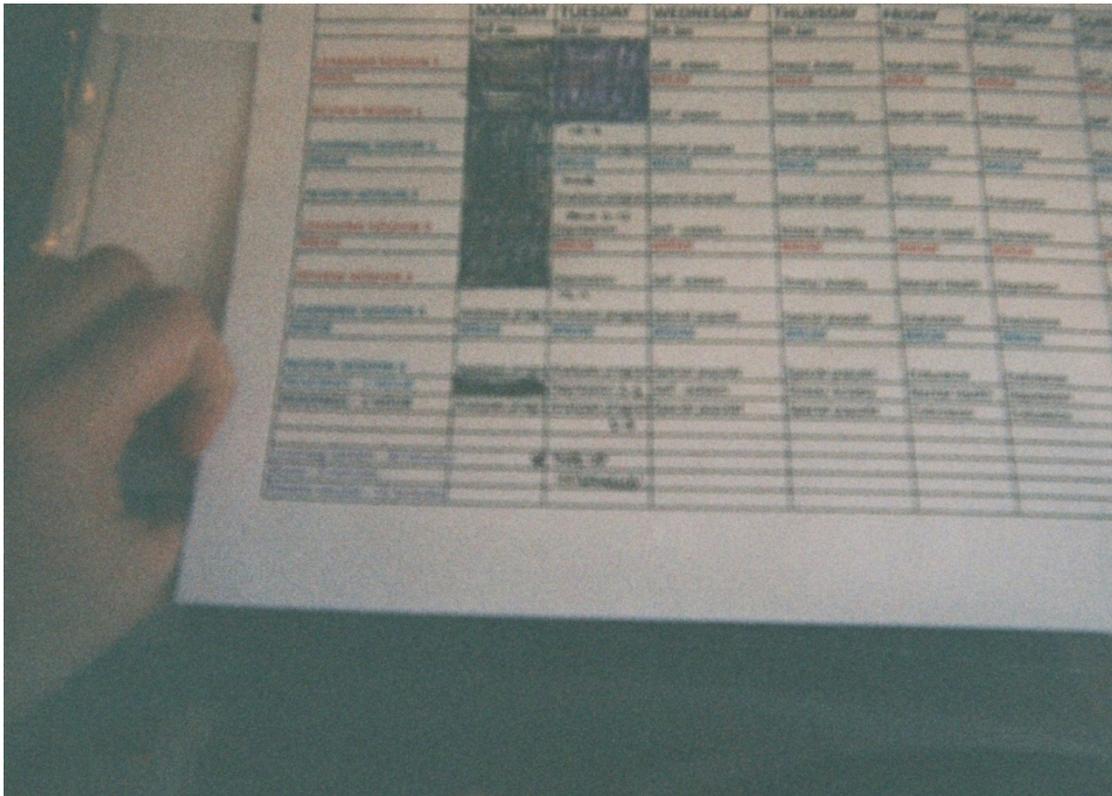


John

Henry



Henry

Henry

Tim



Tim

Tim

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Tim

Tim

Eve

Eve

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Eve
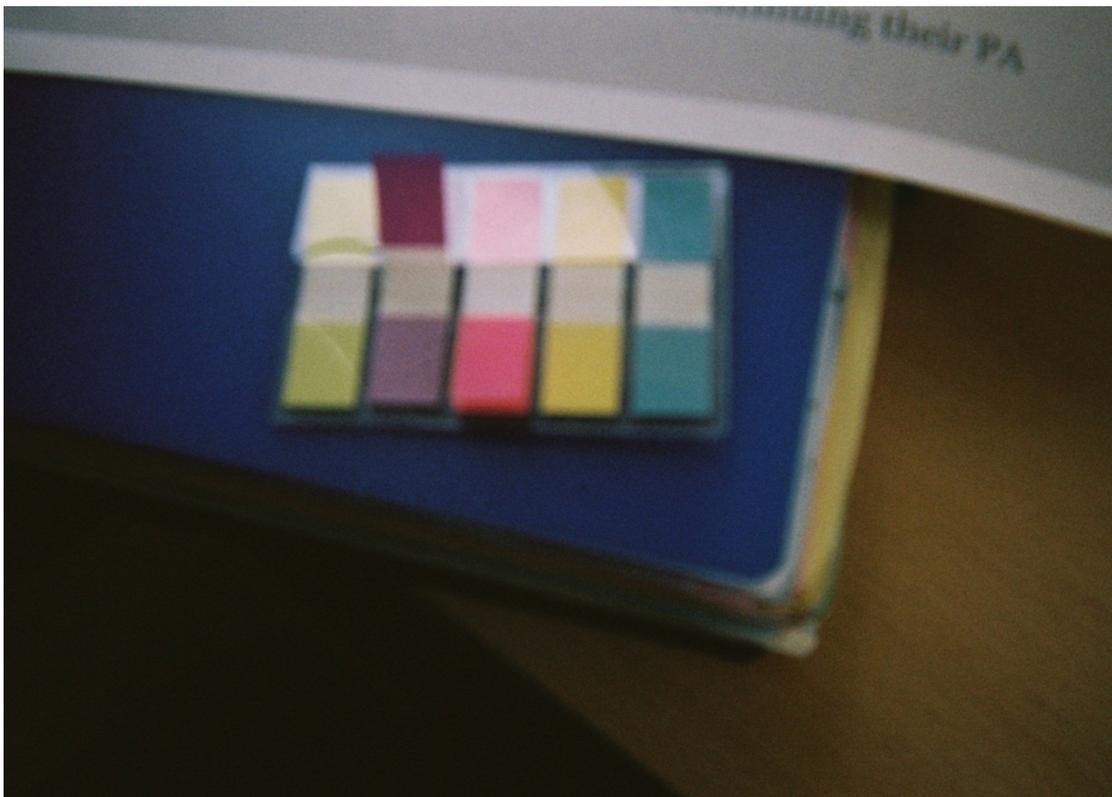


Eve

Eric

# Appendix 14: Participant matrix showing contextual information and strategies

| Name<br><br>Data sources | Age | Subject | Year | Contextual background | Practical strategies | Cognitive strategies | Emotional strategies |
|---|---|---|---|---|---|---|---|
| **Bridget**<br><br>Pilot interview, fieldnotes, documents | 20 | Archaeology and History | 1 | Assessed age 13 - given literacy support for two years.  A-level grades were too low. Determined to attend chosen university so worked in a related field for two years; she was accepted on course in light of experience. | Crib sheets from friends previously for GCSEs and A-levels.<br>Post-it notes used profusely – strategy taught at school. Visual strategies and association. | Avoids planning as aware that she is stressed when all does not go to plan. Takes a strategic risk – omits topics as no time to cover everything. | Pretends to self and others that she hasn't tried. Stakes higher if she tries. Book under pillow the night before the exam. Dyslexia diagnosis useful as excuse for not doing work. Relied on friends - now developing own strategies. |
| **Ned**<br><br>Pilot interview, fieldnotes, | 19 | Maths and Economics | 1 | Assessed age 11.  Extra support throughout secondary school. Given extra time for GCSEs and A- level examinations. | Condenses notes Visual triggers, past papers, model answers, repetition. Times himself | Learns from feedback Needs overview – makes connections. Needs to understand - reading information | Supportive teachers and friends. Still seeks support of school teachers. Makes sure |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| documents | | | | Repeated AS year at his own request as grades too low - a difficult decision and a turning point. Regrets not able to learn a foreign language. | answering questions. Debates topics with friends. Asks questions in tutorial sessions. Uses help of postgraduates. | not helpful. Practises writing out whole answers using past papers - timing in exams is problem. | understands everything – failure not going to happen again. Revises to music to relax as he learns. |
| **Sharon**<br><br>Phase one interview, home visit, fieldnotes, documents | 35 | Medicine | 2 | Assessed age 34. Low grade GCSEs. Left school at 16 for apprenticeship in engineering - exams were not important - Long-held ambition to be a doctor. Took Access course before offered medicine place. Divorced mother of two. Failed first year exams. | Records all lectures stores on pc Prints work – does not learn from the screen except animation on internet. Personal mindmaps. Colour codes notes - very neat. | Works on notes immediately after lectures. Uses all spare moments during day. Aware she needs to try new ideas but concerned about wasting time. Needs order | Assumed attendance at lectures was all that would be required to pass. No basis for revision. Prepares self for failure. Avoids showing weakness in public although relies on peers for support. Displays pass letters to motivate. |
| **Eric**<br><br>Phase one interview, | 18 | Electrical Engineering | 1 | Assessed age 11and given extra time for GCSE and A-level exams. Dyslexia label | Past papers from start to check understanding Able to adapt/modify | Chose engineering because - aware of limitations. Ensures understands. Aware | Draws up excel spreadsheet timetable – needs to reassure |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| photos, log, artefacts, letter, documents | | | | horrendous but pleased to have support and no longer considered stupid. Learns the system. Likes subjects where there is a right answer. Would like to study military history but essay-based not possible. | strategies when exam format changes. Diagrams rather than writing. Strict procedure - timetable. Reduces, compacts notes – one subject to two sides of A4- brightly coloured on wall (gave to me). | of way he learns. Cue conscious. | everything covered. Previously revised with friends but not now.  Restricted choice of subjects. Hates dyslexia label. |
| **Max**<br><br>Phase one interview, photos, letter, fieldnotes documents | 22 | Electronic Engineering | 4 | Assessed age 19. Some problems with concentration at school. Predicted low grades when young but now in line to achieve a first. | Course mate. Past papers at heart of whole procedure. Condenses notes Records lectures. Asks questions Personalises notes. | Past papers whole procedure. Very organised. Aware that reading is unproductive and wastes time. Aware that he needs to work on lecture notes immediately after lecture. Uses technology, understands concepts before revision starts. Spoken word | No rewards when young. Uses course mate Organisation gives confidence - takes no risks – learns 100% |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | preferable to written. |
| **Tracy**<br><br>Phase one interview, artefacts, emails, photos, fieldnotes, documents | 20 | Nursing | 3 | Assessed age 17. Difficulties noted at primary school but no assessment carried out - played truant. Took a BTEC National Diploma as a route into nursing. | Attends lectures Seeks support from dyslexia support service. Colour codes | Aware that most revision takes place in lectures - written word difficult - prefers a teacher. Needs to be interested in topic. | When young didn't care. Avoided revising. Now wants to learn although easily bored - seeks distraction. |
| **Fiona**<br><br>Phase one interview, emails, letter, fieldnotes documents | 22 | Philosophy and Politics | 3 | First assessed age 6. Given extra support throughout schooling. Allowed extra time for GCSE and A level exams. | Past papers from beginning - dictate key decisions. Strict structure colour codes all notes | Selects units on how will be examined. Notes organised to correspond with exams.Aware that needs bigger picture from start. Connects and relates topics. | Avoided/cheated literacy tasks when young. |
| **Cindy**<br><br>Phase one interview, fieldnotes, documents | 26 | Oceanography | 1 | Assessed in primary school. Early education in the USA - support from young age. Age 11 overheard teacher saying she would never get through College. Reader and extra time for USA | Past papers Post-its – tags Colour codes Association | Battle strategy – take no prisoners Aware that she needs to work on material as soon after lecture as possible. Cue conscious | Inspiring music to encourage herself. Story tapes to de-stress. |

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| | | | | exams. Now taking a Master's. | | | |
| **Seb**<br><br>Phase one interview, artefacts, photos, fieldnotes, documents | 26 | Nursing | 2 | Assessed age 16. Took BSc in Cognitive Science at another university before present course. Wanted to be dentist when younger - dissuaded by teachers. | Past papers from the very beginning of the course. Uses acronyms and mnemonics | Needs structured logical system. Lists, personalises information. Overview of course | Relied on father's support when young. Enjoys exams now that he is doing well. |
| **Keith**<br><br>Phase one interview, fieldnotes, documents | 42 | Nursing | 2 | Assessed age 42 although long history of literacy difficulties. Misbehaved at school - left at 16 – took factory work and latterly worked as bus driver then healthcare assistant. Now realising long-held ambition to be nurse. | Dictaphone to record lectures. Retypes handwritten notes. Uses colour Outlook diary to help organisation. | Aware of difficulties with organisation and note-taking and has put in place some practical strategies. Aware that he is not able to multi-task. | Relies on support from wife and colleagues both emotionally and practically. |
| **John**<br><br>Phase two interview, photos, | 33 | Medicine | 1 | Assessed when nine. Support throughout schooling - misbehaved Holds degree in Business Studies has spent 8 years | Folders with dividers for each learning outcome. Personalised mindmaps, | Aware that he needs to be super organised Aware of need for multi-sensory strategies. | Misbehaved when young. Motivated by words of headmaster who predicted he would |

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| fieldnotes, documents | | | | in Army Intelligence Corps. Sponsored by Army on present course. Married with two young children. | Internet. iPhone to record lectures – downloads onto pc Excel spreadsheet with Learning Outcomes. Youtube | Understanding essential | not achieve - a turning point to prove him wrong. Pragmatic – moves on if fails. Practical application makes learning easier. Healthy breaks- runs. |
| **Eve** Phase two interview, photos, artefacts, fieldnotes, documents | 20 | Sports science | 2 | Assessed age 8. Individual support throughout schooling. Initially attended a very academic secondary school – moved to a smaller less competitive school much happier. Very motivated – hopes to achieve a first then train as a PE teacher. Took part in research to gain points for Graduate Passport. Hates technology. | Would like to be able to use past papers but they are not available. Strict revision timetable. Uses revision book Colour codes. Makes personal mind-maps With visual triggers Discussion helpful - teaches boyfriend. | Detailed time-table reduces stress Needs to understand Aware that rote learning is difficult - uses visual trigger pictures | Reward system. Appears easy-going but highly motivated Teacher support at school – now boyfriend and peers |
| **Tim** | 22 | Oceanography | 3 | Assessed age 7. Mother | IT – two screens. | Aware needs | Reward system |

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| Phase two interview, photos, fieldnotes, documents | | and Geography | | works in dyslexia field. Used laptop for schoolwork and PC in exams since secondary school. Enjoys technology so can work while travelling although does not record lectures as no time to listen back. Assessment mode strongly influences choice of units. Hates exams -prefers coursework and presentations. | Past papers. Discussion with girlfriend Kindle, booklets – all notes – organised – if he printed them himself they would be in mess in bag. Structures revision but no timetable. Hates mindmaps Uses course booklets. Layout important –large paper – large writing | overview.  Needs to understand. Curtains closed to avoid distraction Untidy working environment but notes tidy. Chooses modules/course depending on assessment mode  - prefers 100% coursework | Girlfriend support Does not like to appear different. Has not told prospective employers Makes a joke of special exam arrangements Needs to 'block things out' and switch off. Music to keep focused |
| **Henry** Phase two Interview Photos Fieldnotes Documents | 22 | Politics | 3 | Assessed as a child, support provided throughout schooling. Told he would be a dust-bin man when young. Remains anxious that dyslexia may adversely affect his career. Does | Uses PowerPoints and booklets provided by dept. Reward system - frequent breaks. Flow diagrams. Visual strategies | Feedback very important. Frustrated if refers to literacy rather than content. Uses feedback to improvr. Avoids distractions. Question spots from past | Misbehaved when young. Likes to 'earn' what he gets rather than having an advantage. Supportive girlfiend studying science helps to keep him |

| | | | | not like peers to know he is dyslexic. Wishes he had studied science - revision and assessment easier – feels he could achieve a 1st if not dyslexic. | | papers to save time | on track. Revision beard – neglects self. Untidy so everything to hand. Down-time essential. |
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